Electronic Appendix

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Kalt A, Schreyer W, Ludwig T, Prowatke S, Bernhardt HJ, Ertl A (2001) Complete solid solution between magnesian schorl and lithian excess-boron olenite in a pegmatite from the Koralpe (eastern Alps, Austria). *European Journal of Mineralogy* 13: 1191–1205

A. Appendix – Minoan A

A.0.1. Overview – SAN52A

Fig. A.1. Sample SAN52A: Clear crystals are plagioclase grains.

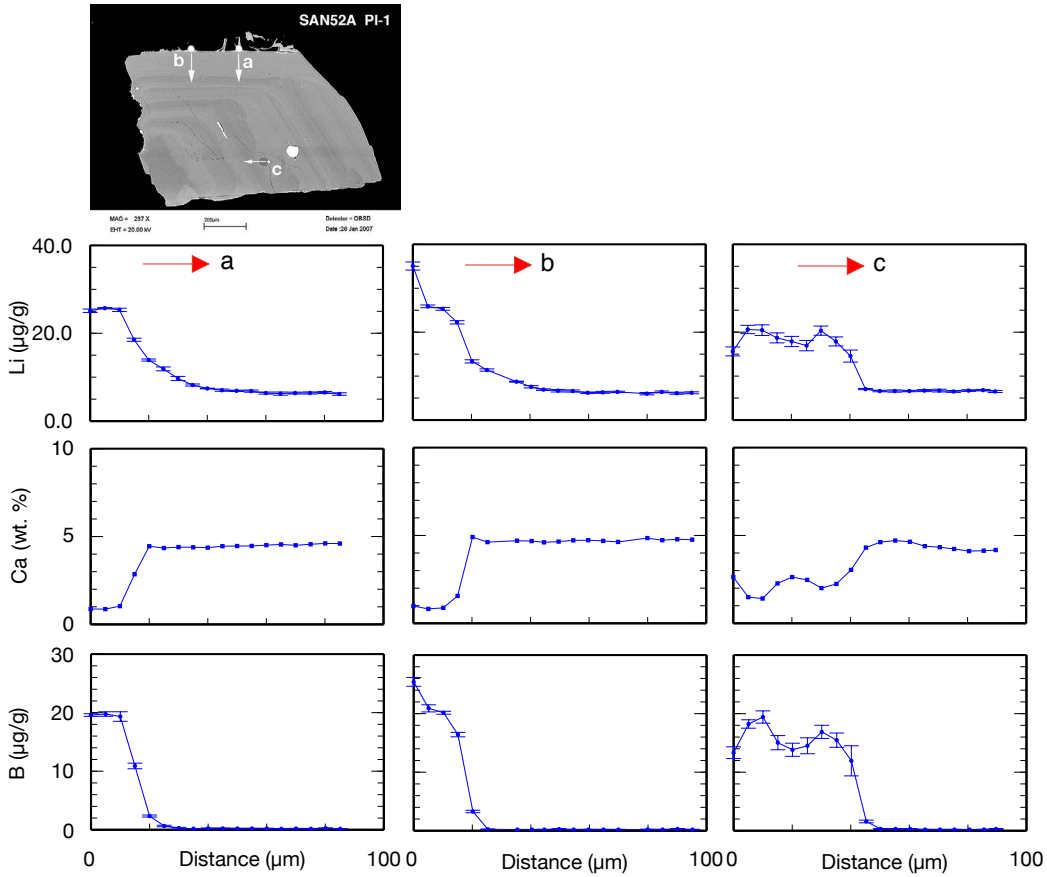


Fig. A.2. SAN52A: Pl-1. Short SIMS profiles to detect/exclude diffusion of Li from glass selvage into pl crystal or from inclusion into pl.

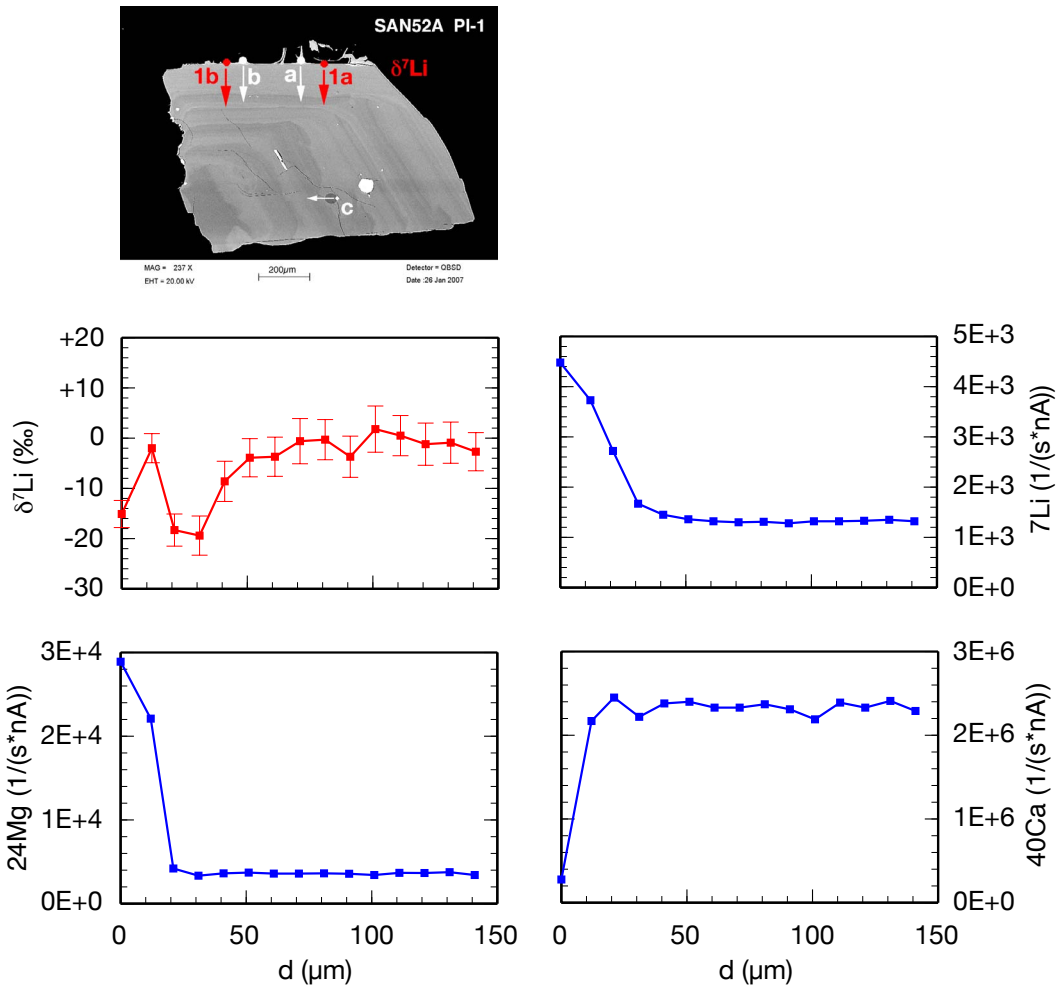


Fig. A.3. SAN52A: Pl-1. Short δ^7Li SIMS profile. The red arrows mark the δ^7Li profiles; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

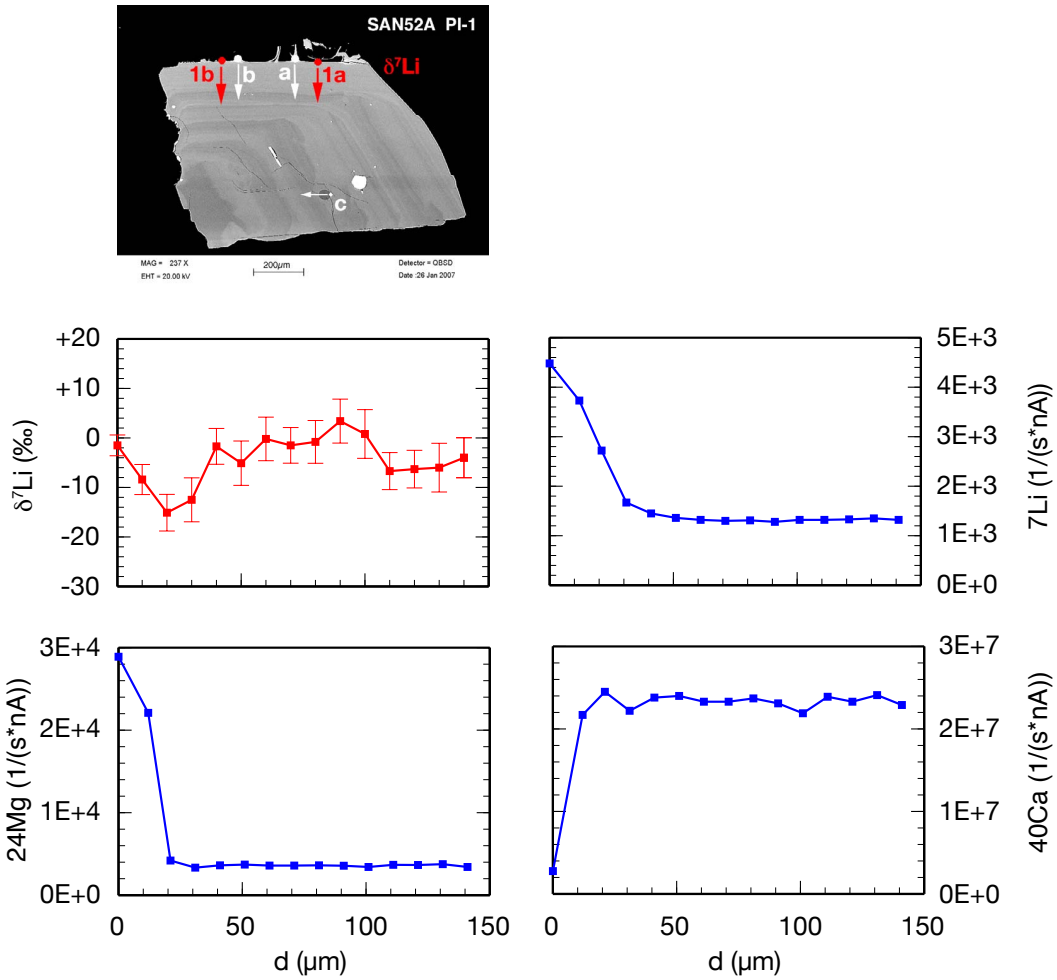


Fig. A.4. SAN52A: Pl-1b. Short δ^7Li SIMS profile. The red arrows mark the δ^7Li profiles; the red or white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

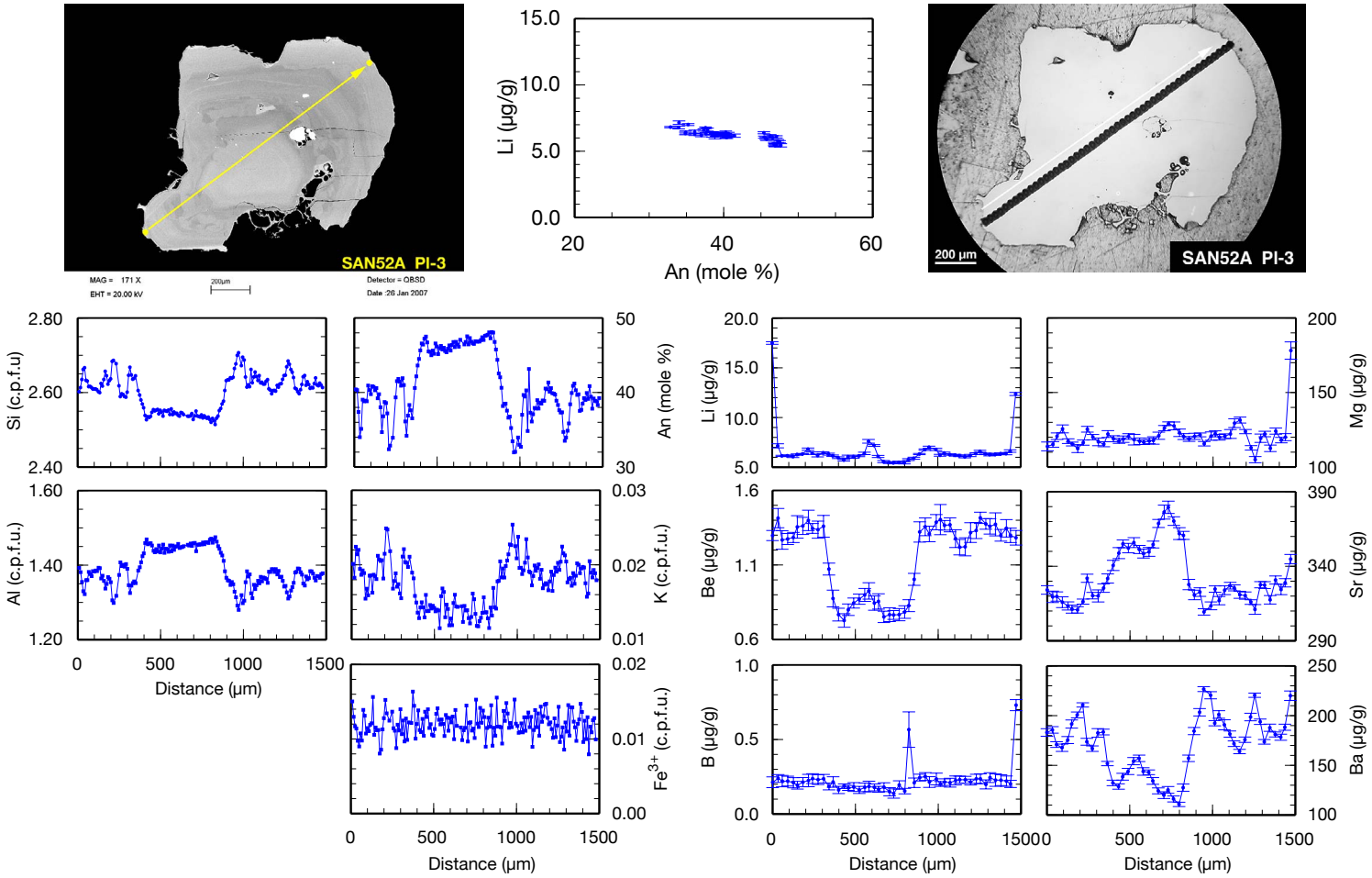


Fig. A.5. SAN52A: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

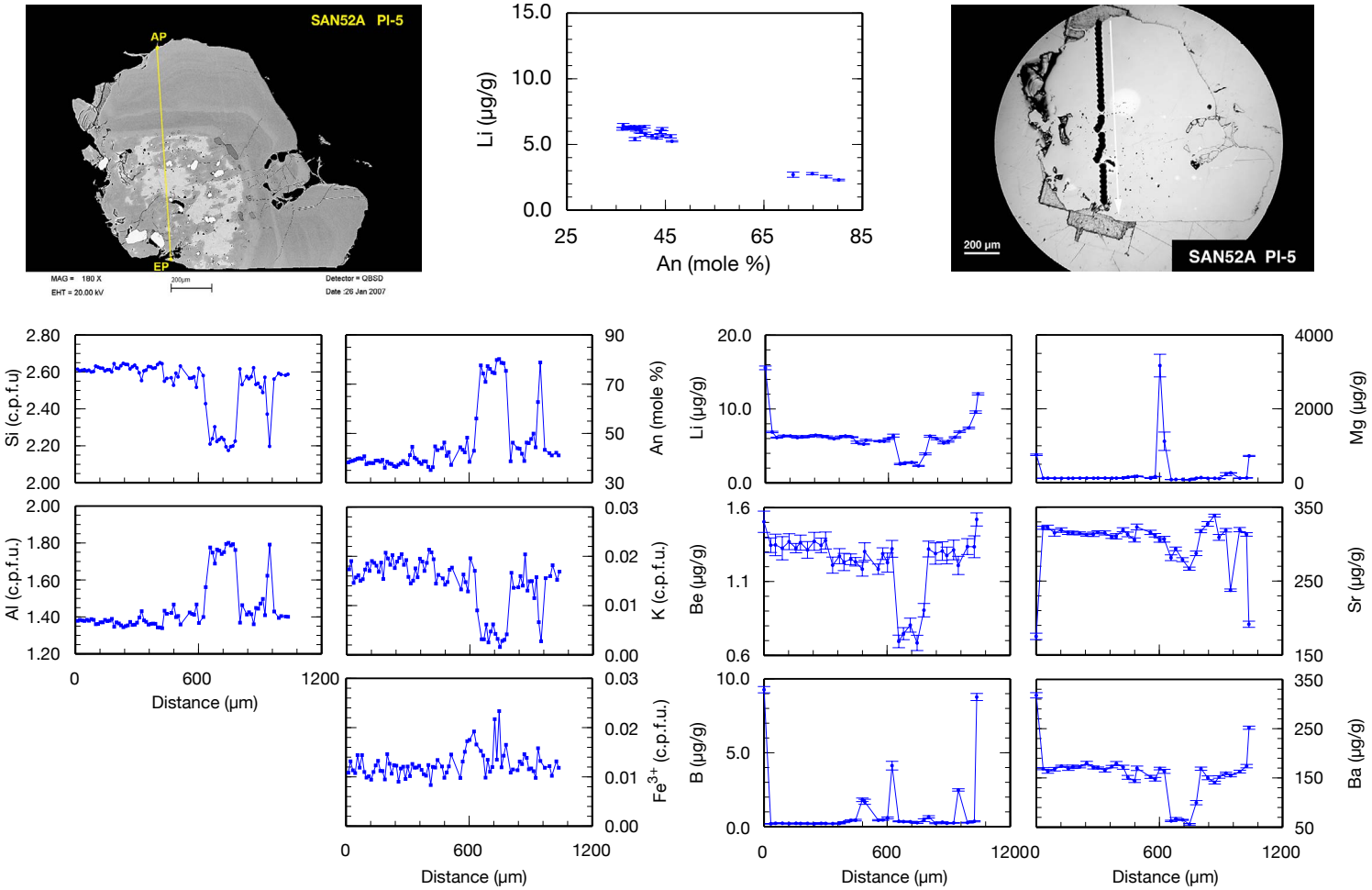


Fig. A.6. SAN52A: Pl-5. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

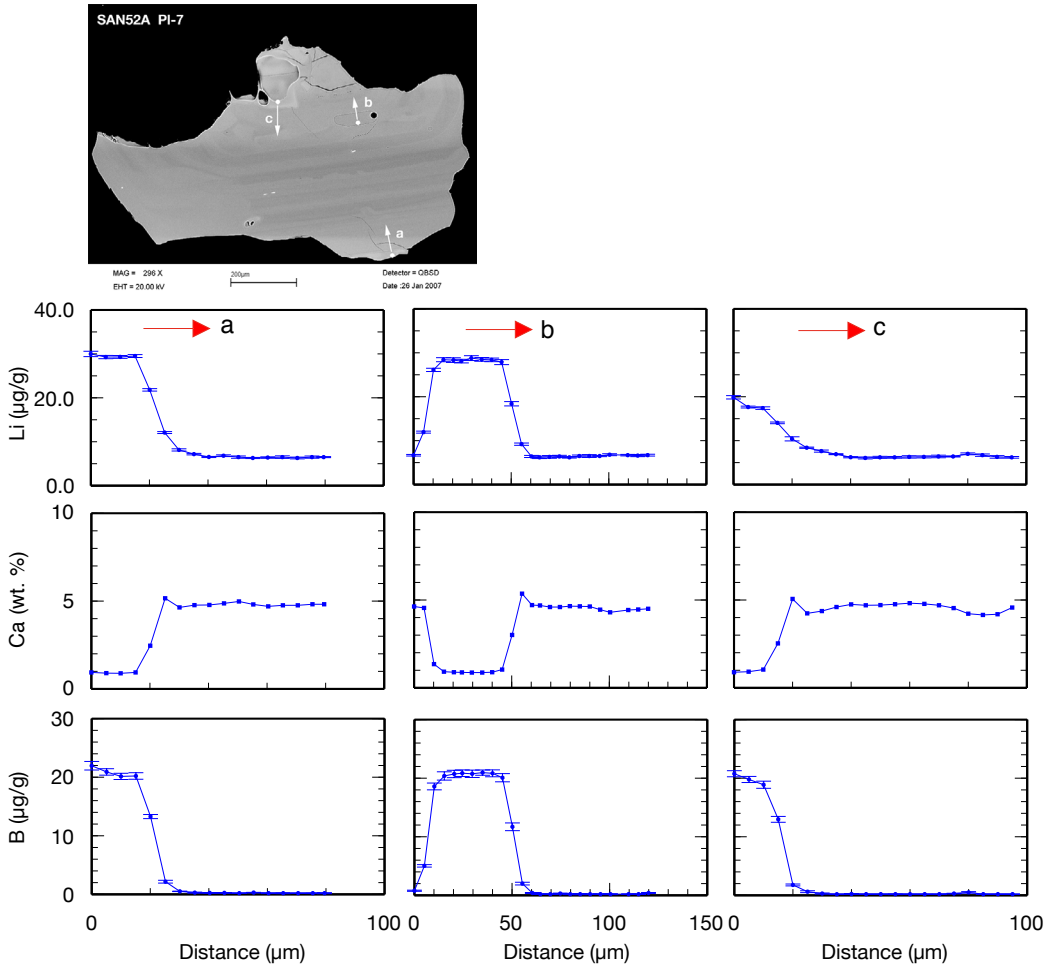


Fig. A.7. SAN52A: Pl-7. Short SIMS profiles to detect/exclude diffusion of Li from glass selvage into pl crystal or from inclusion into pl.

A.0.2. Overview – SAN52C

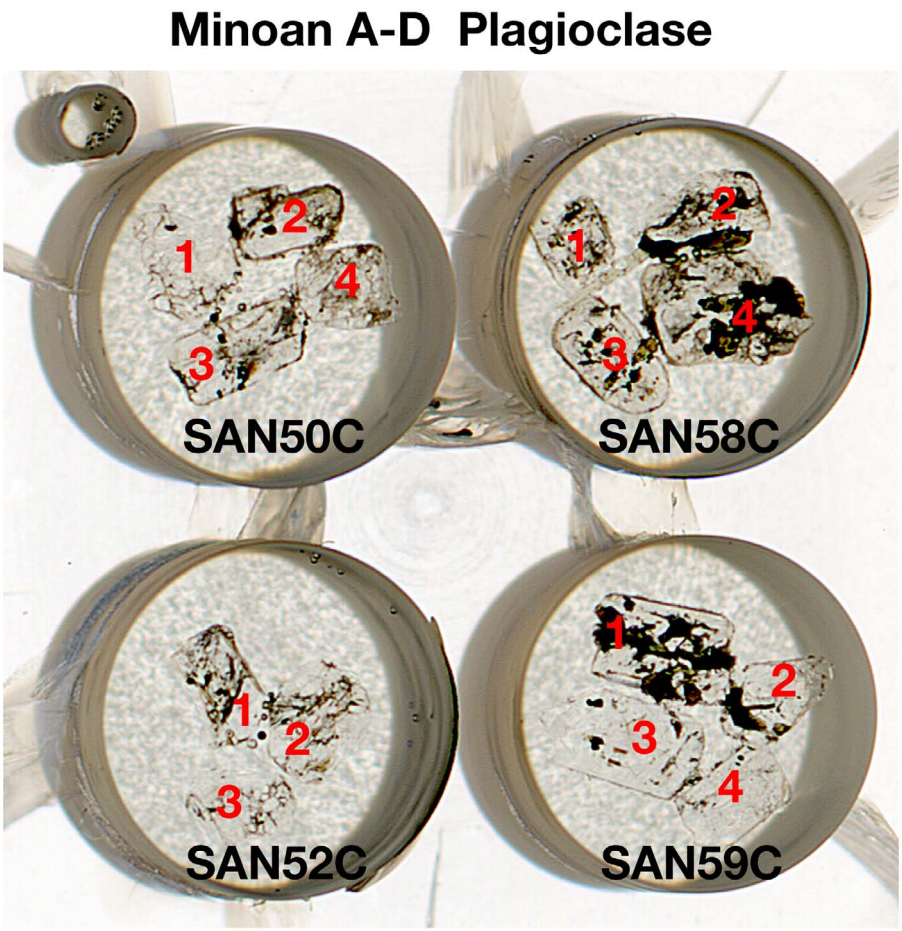


Fig. A.8. Sample SAN52C: Clear crystals are plagioclase grains.

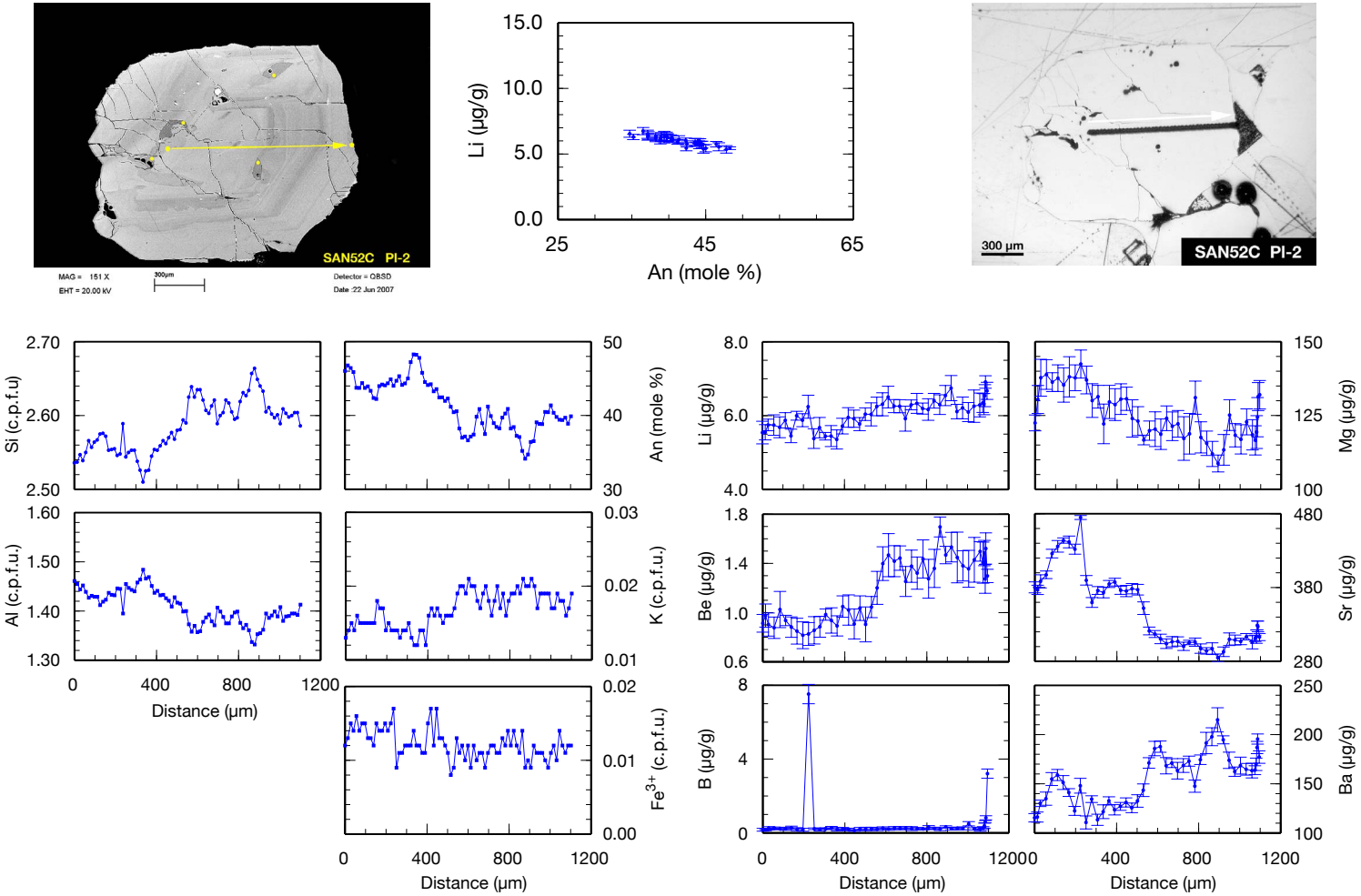


Fig. A.9. SAN52C: Pl-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

A.0.3. Overview – SAN52D

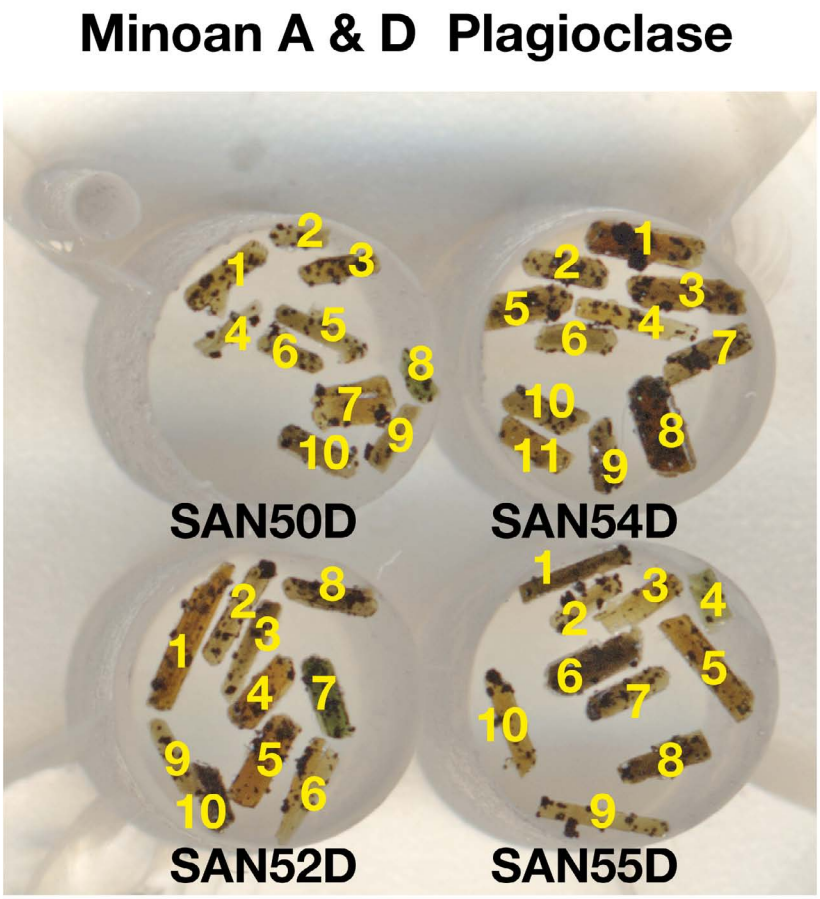


Fig. A.10. Sample SAN52D: Brown crystals are opx grains and green crystals are cpx grains.

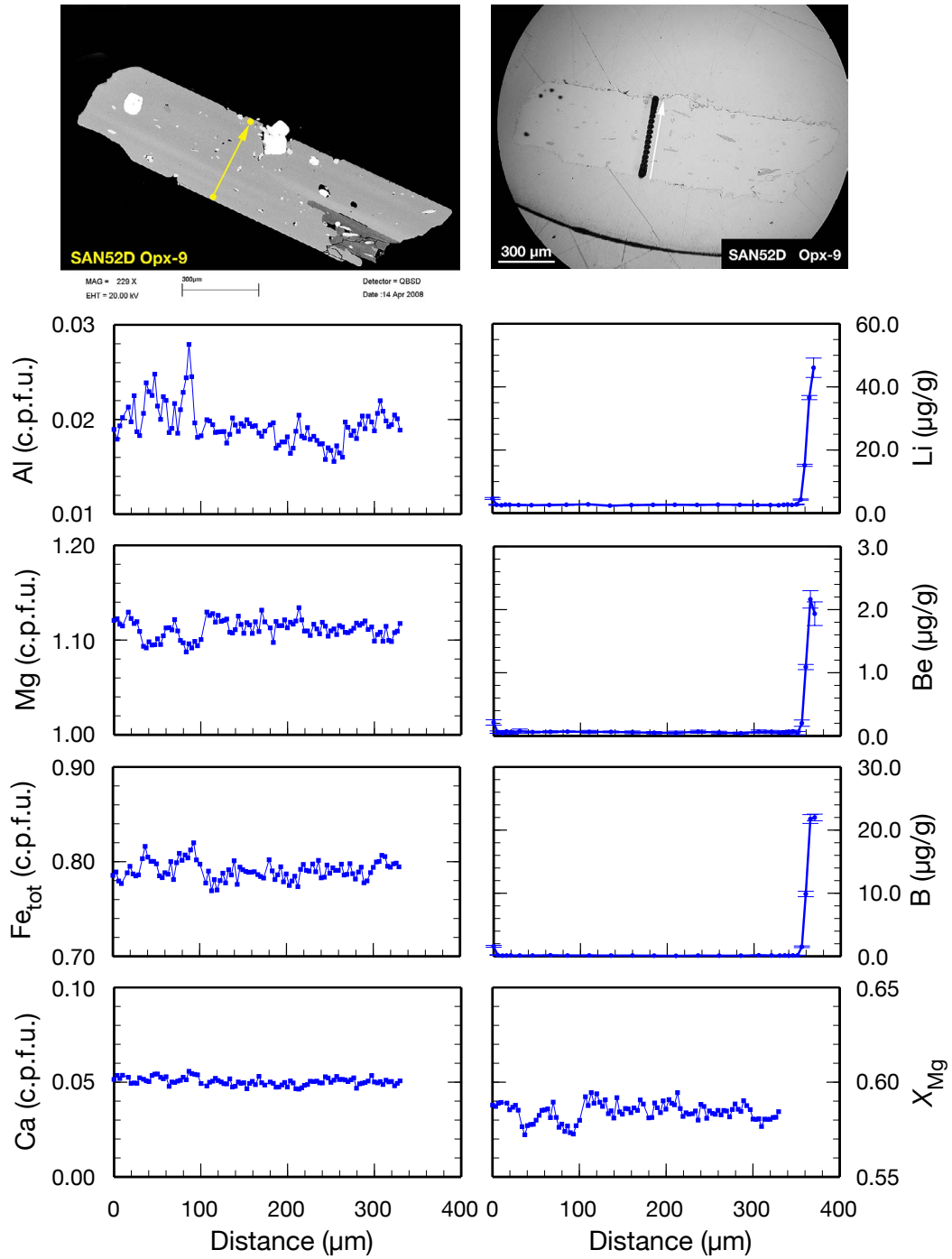


Fig. A.11. SAN52D: Opx-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

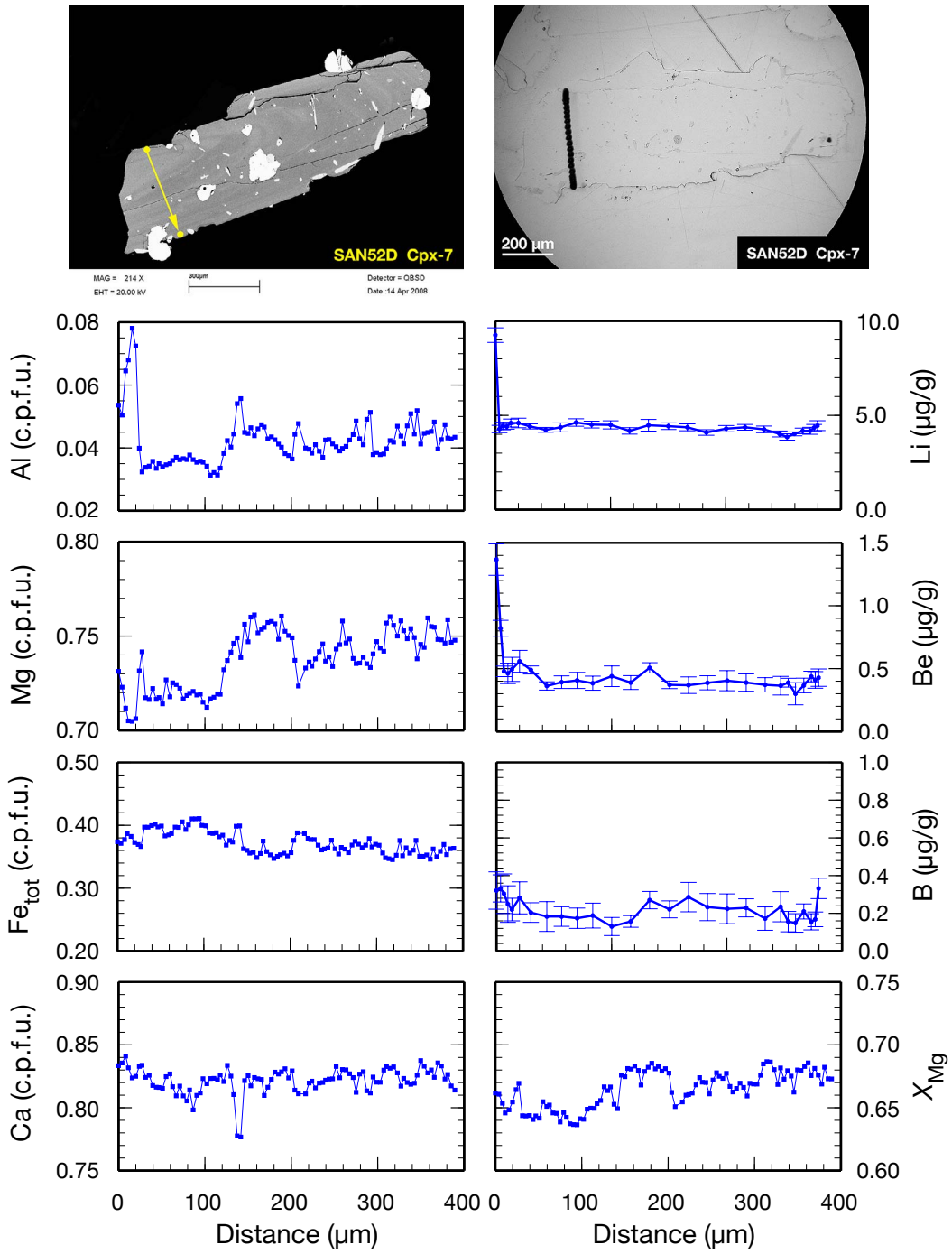


Fig. A.12. SAN52D: Cpx-7. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

A.0.4. Overview – SAN52Agg

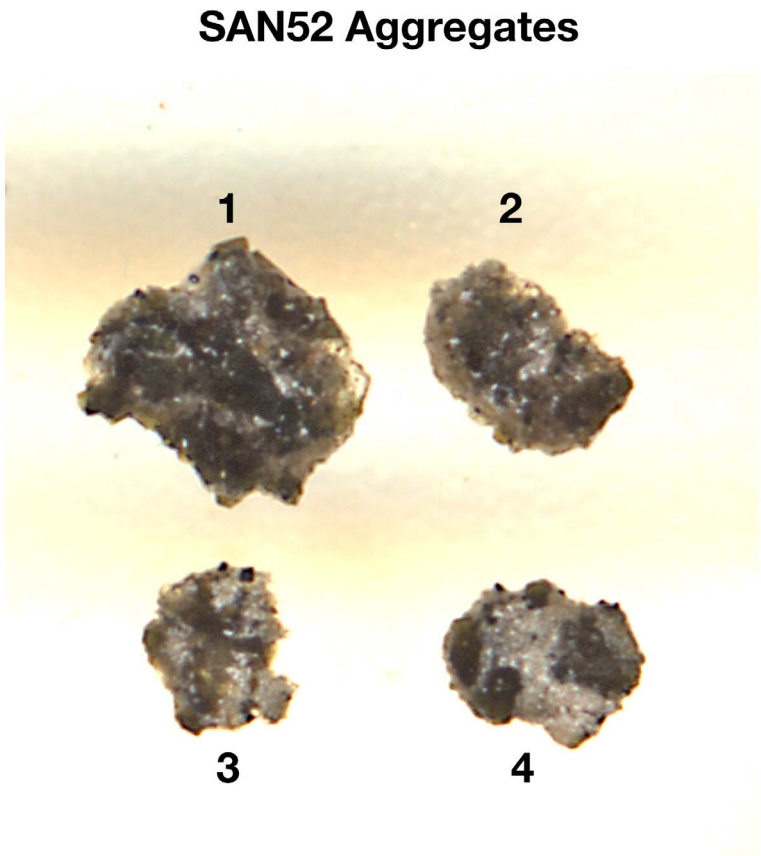


Fig. A.13. Sample SAN52Agg: Nodules of px and pl handpicked from pumice clasts of Minoan Unit A.

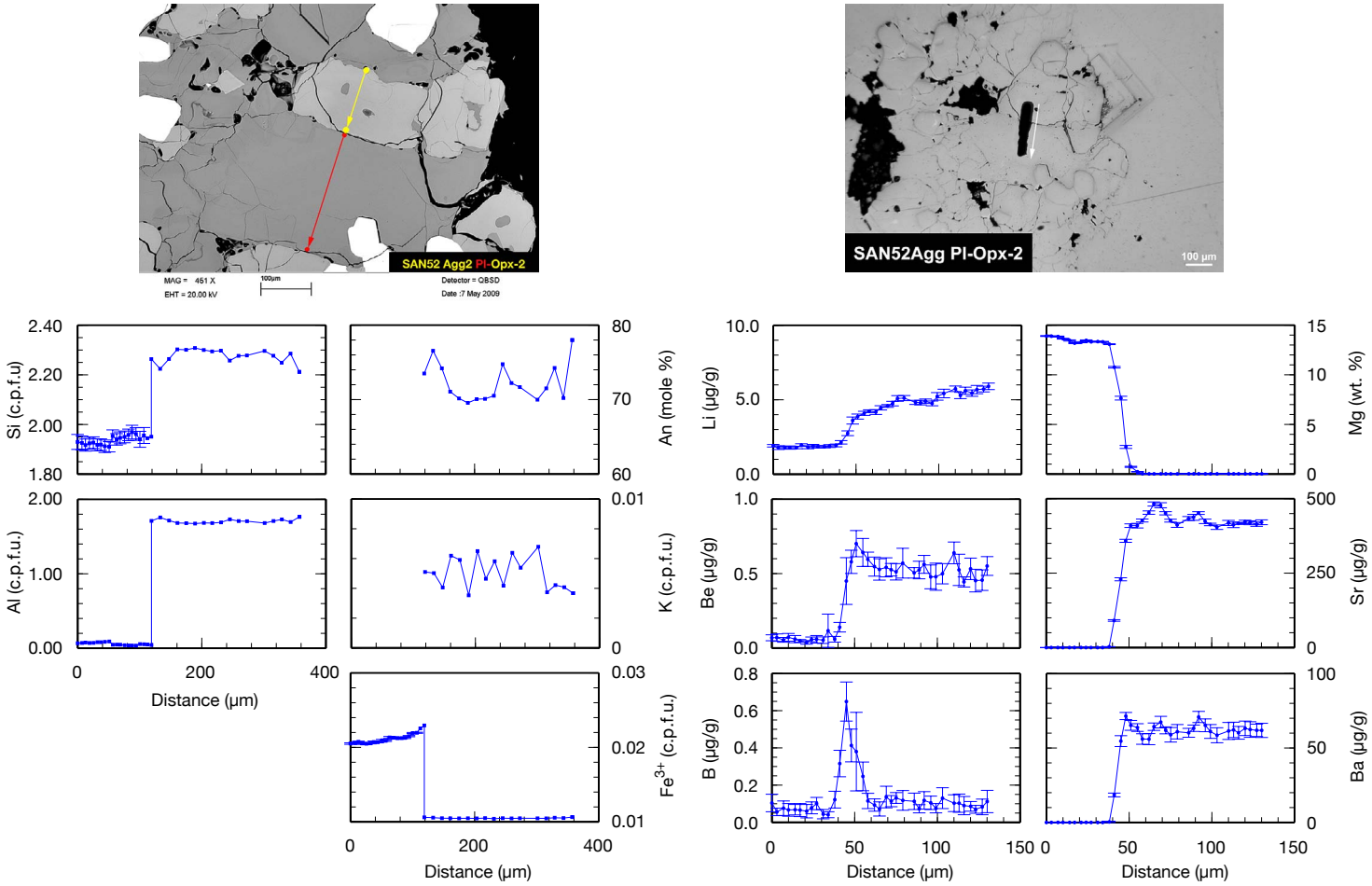


Fig. A.14. SAN52D: Pl-Opx-2. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.

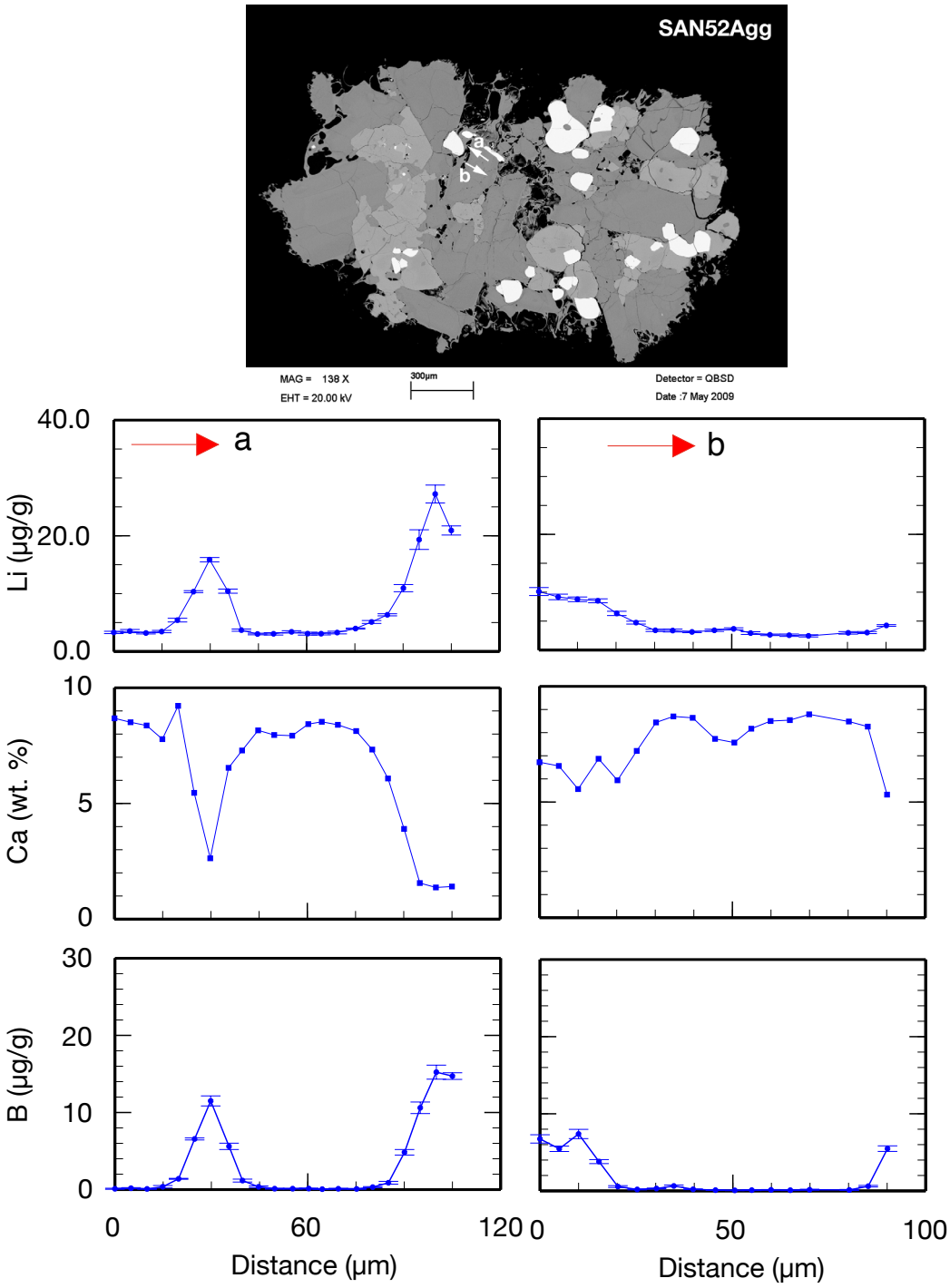


Fig. A.15. SAN52Agg: Short SIMS profiles to detect/exclude diffusion of Li from glass selvage into pl crystal or from inclusion into pl.

A.0.5. Overview – SAN54A

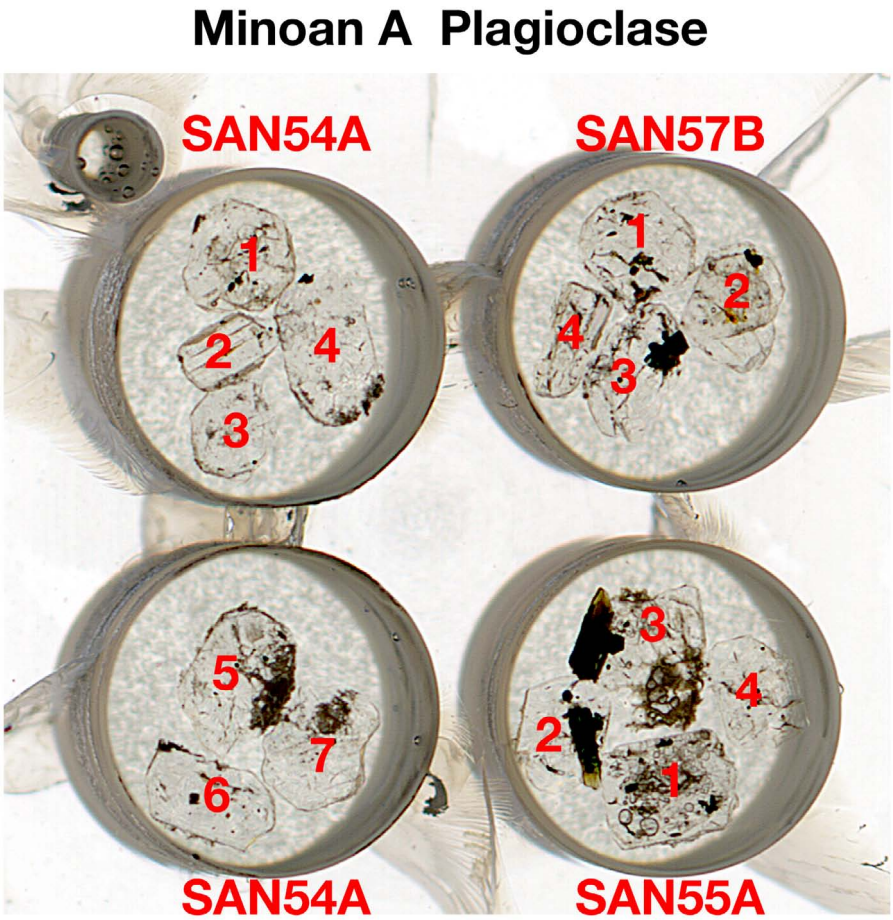


Fig. A.16. Sample SAN54A: Clear crystals are pl grains. Brown crystals are opx grains and green crystals are cpx grains.

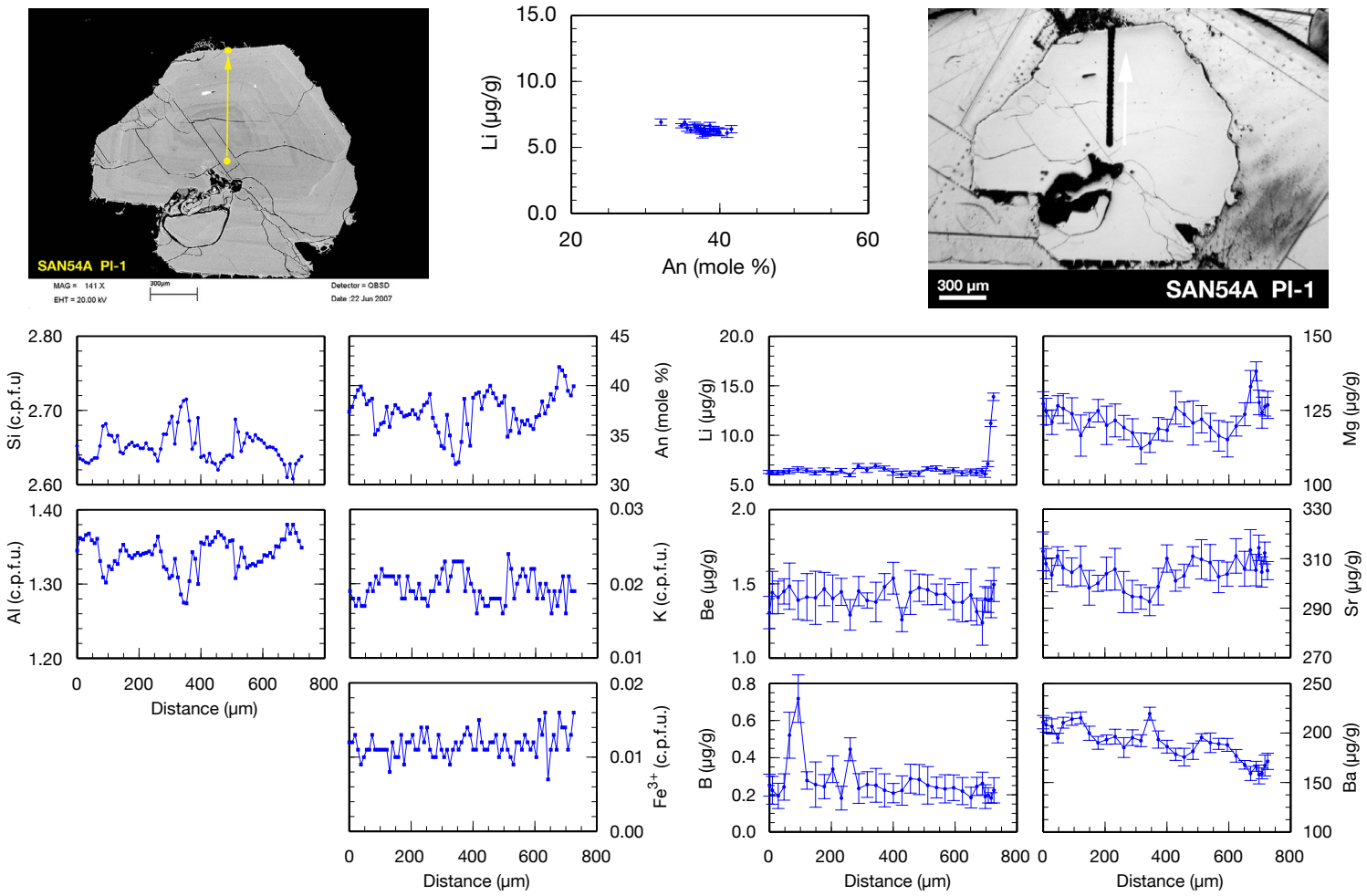


Fig. A.17. SAN54A: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

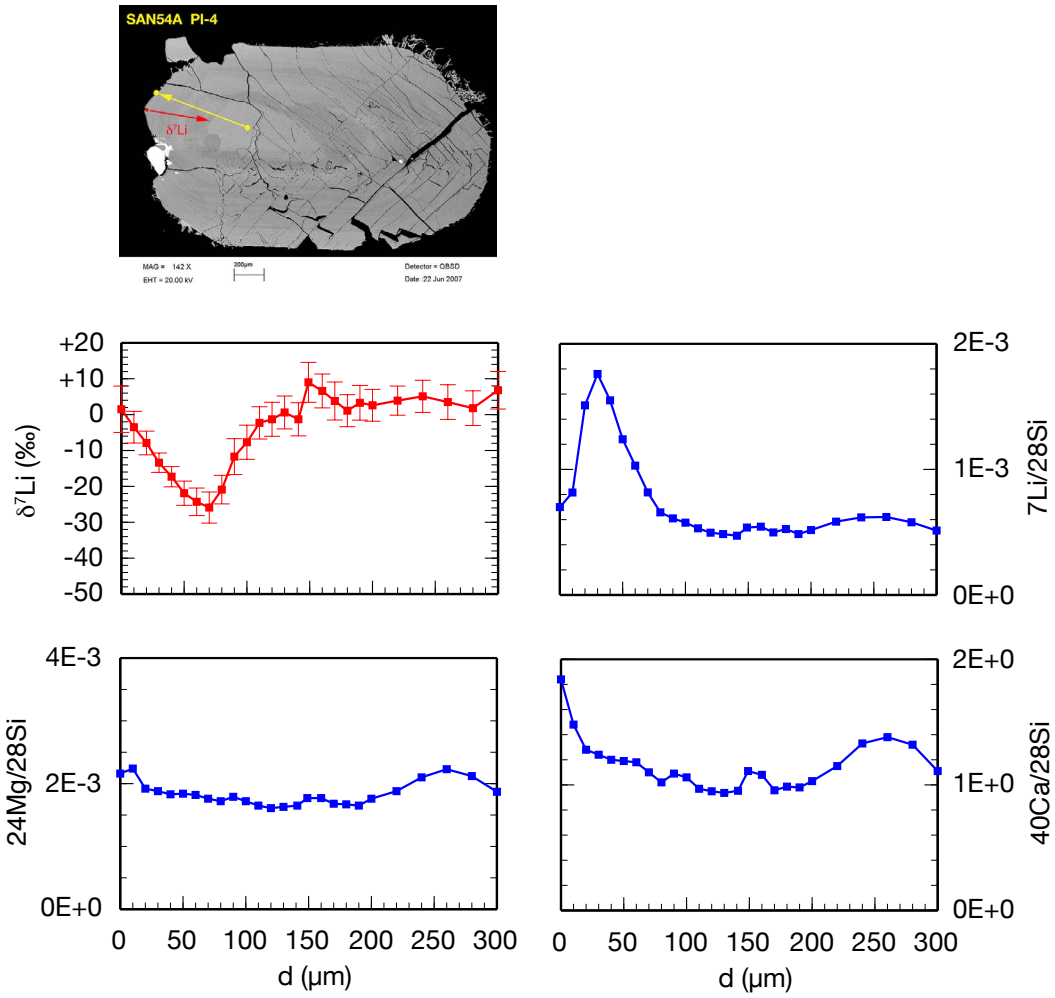


Fig. A.18. SAN54A: Pl-4. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

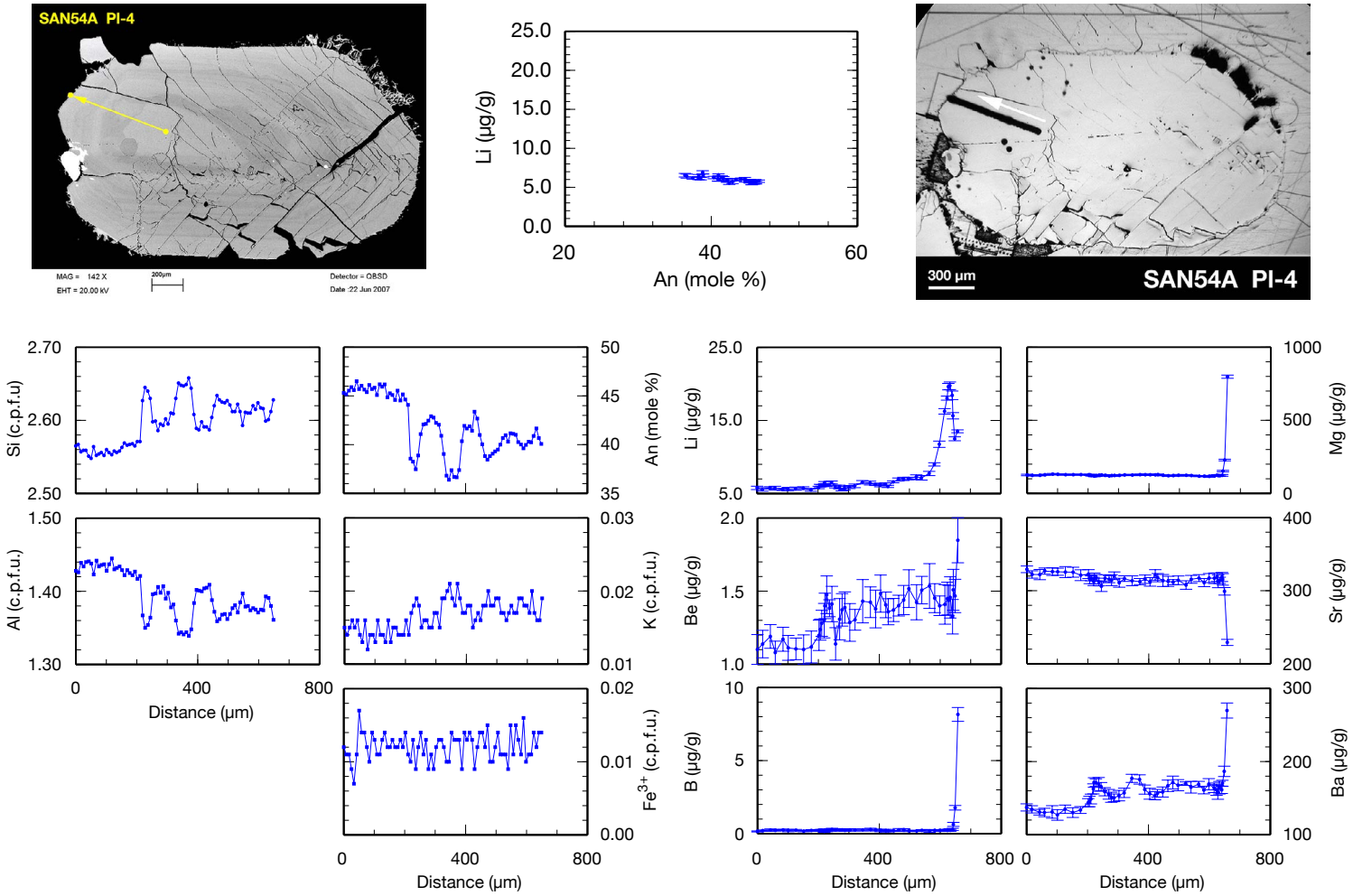


Fig. A.19. SAN54A: Pl-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

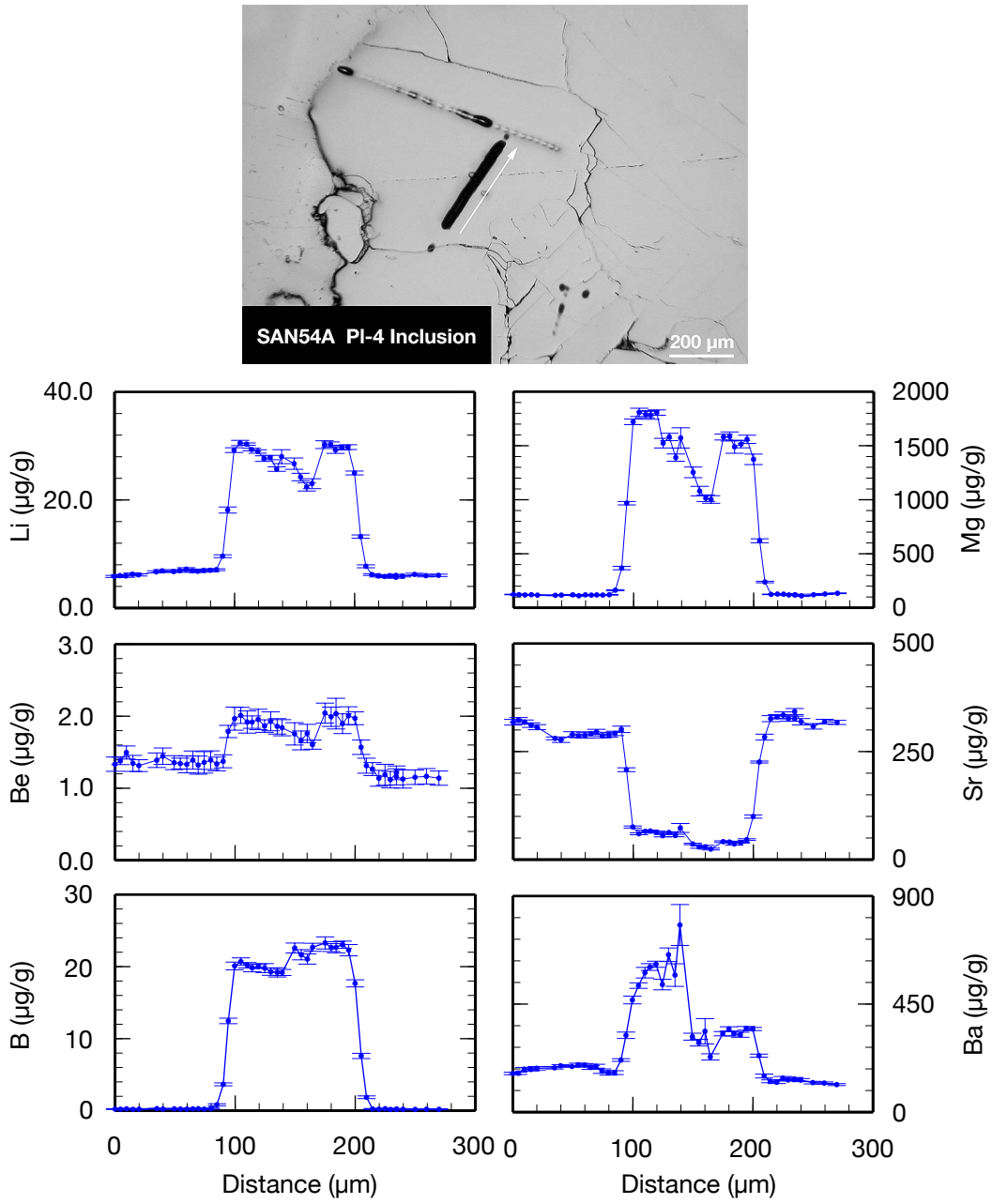


Fig. A.20. SAN54A: Pl-4. SIMS profile through glass inclusion.

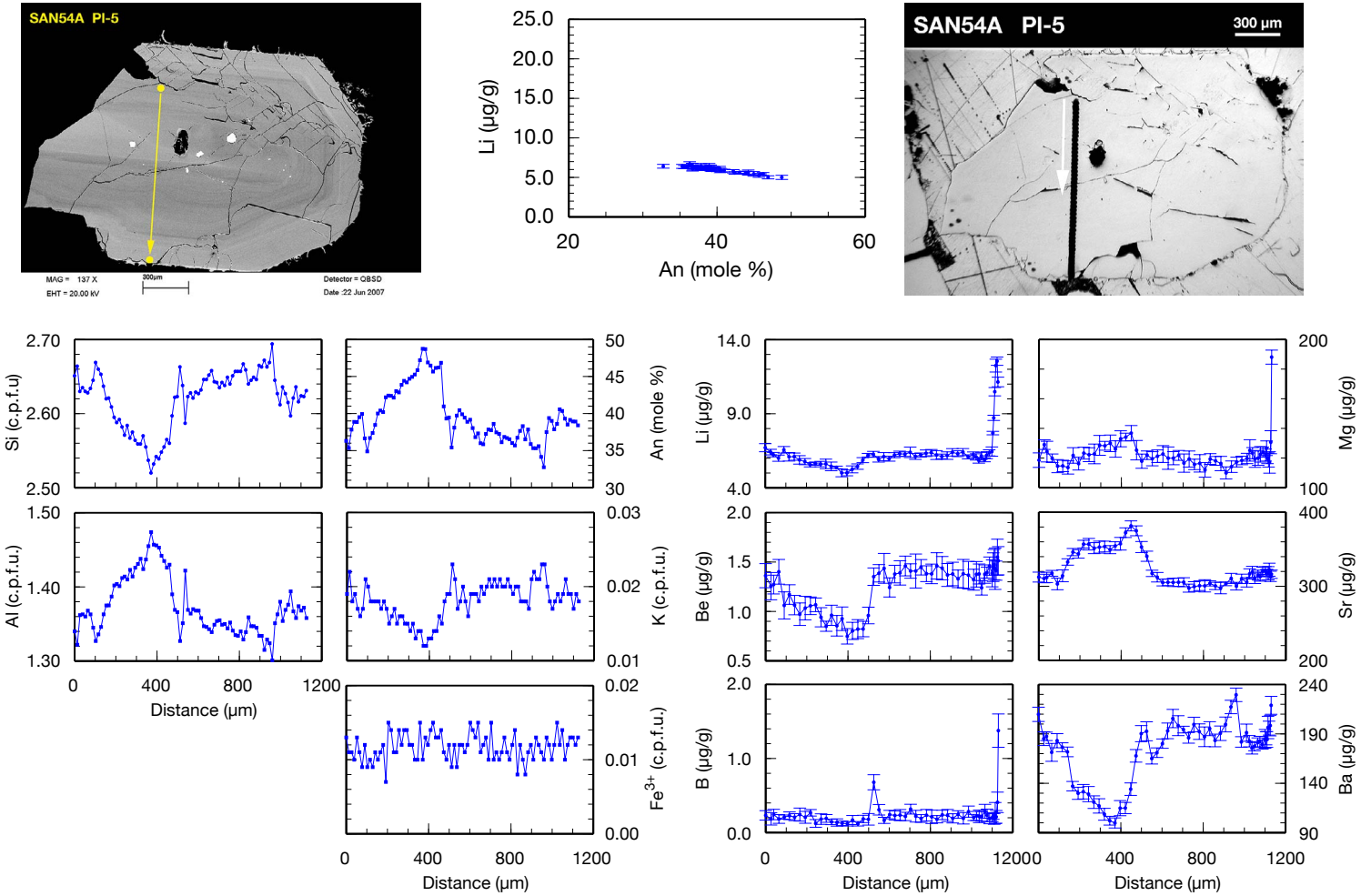


Fig. A.21. SAN54A: Pl-5. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

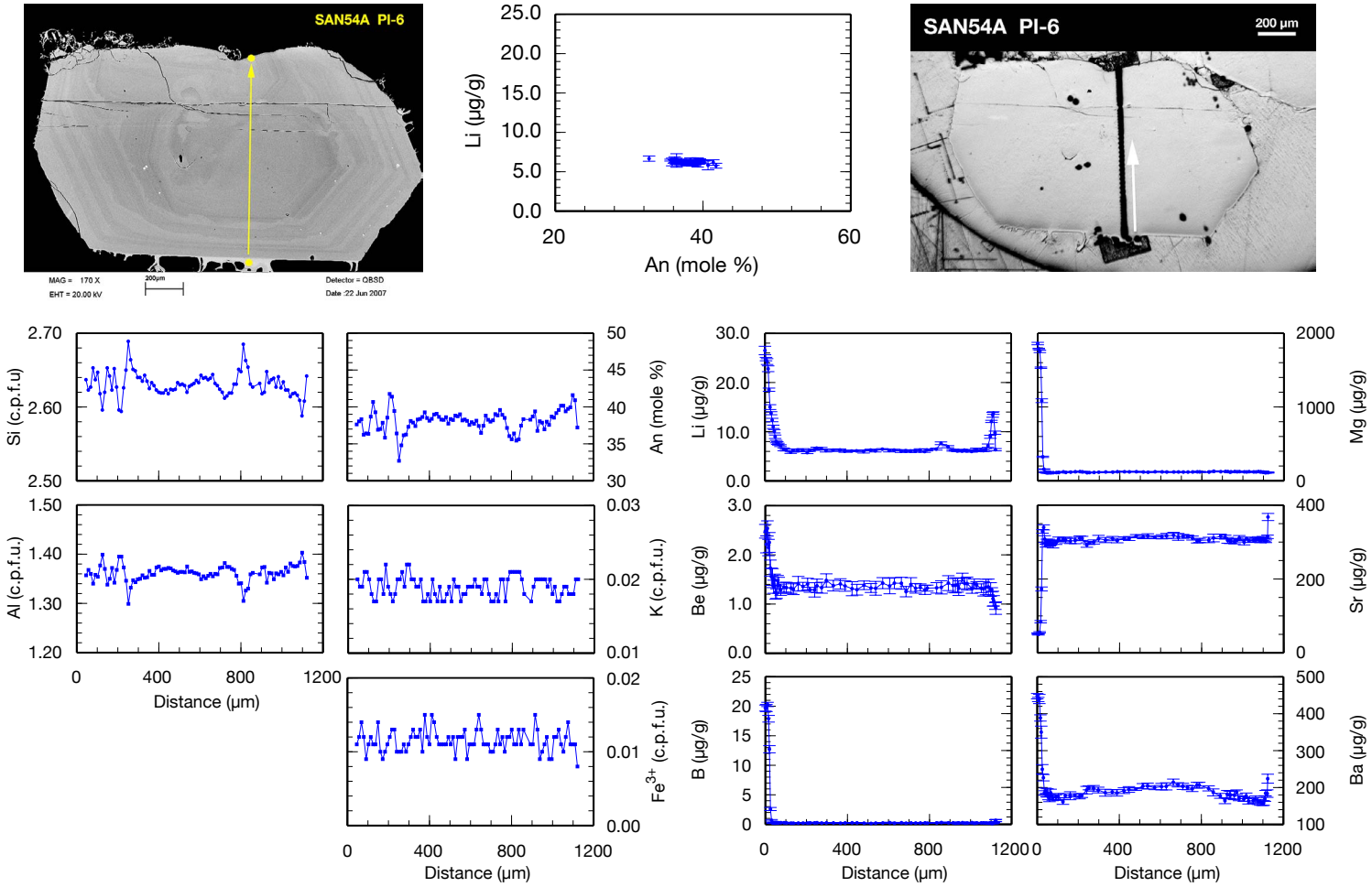


Fig. A.22. SAN54A: Pl-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

A.0.6. Overview – SAN54D

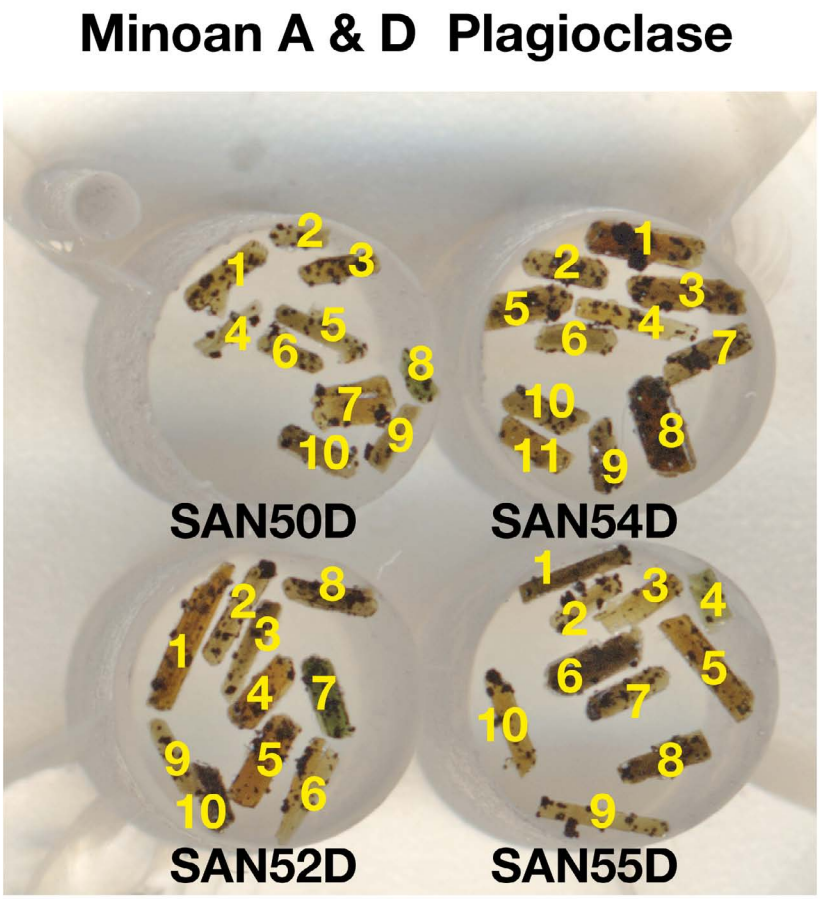


Fig. A.23. Sample SAN52D: Brown crystals are opx grains and green crystals are cpx grains.

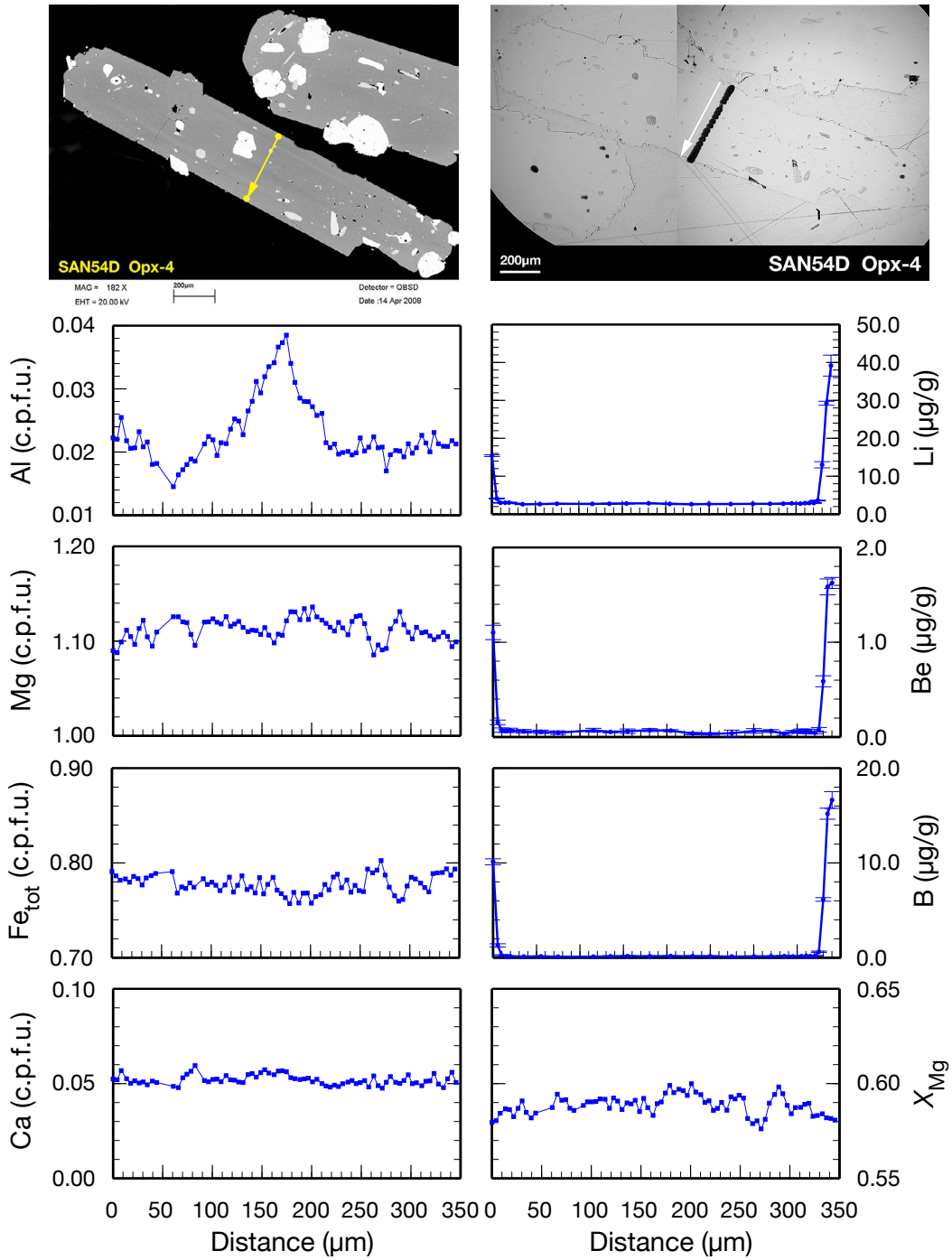


Fig. A.24. SAN52D: Opx-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

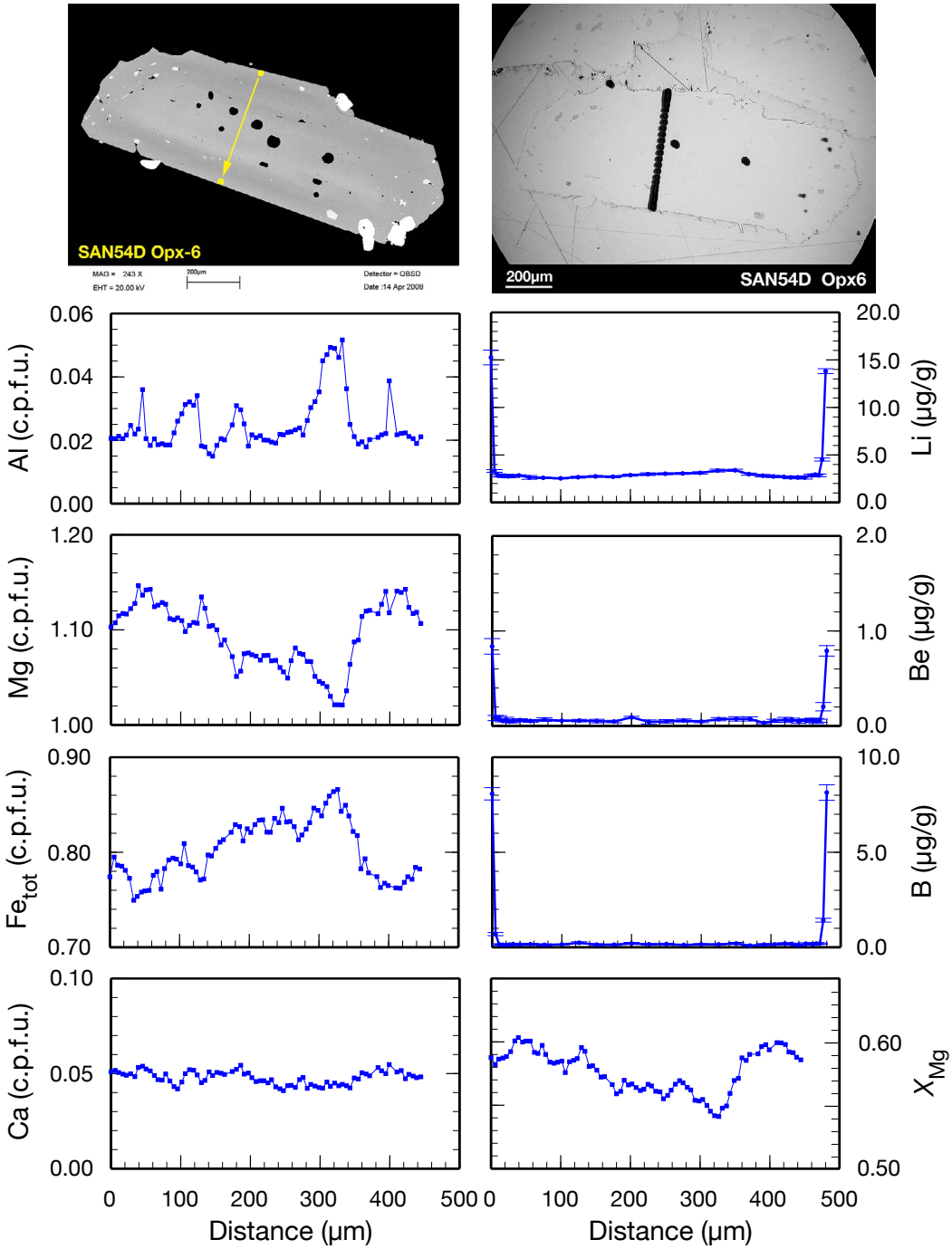


Fig. A.25. SAN52D: Opx-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

A.0.7. Overview – SAN55A

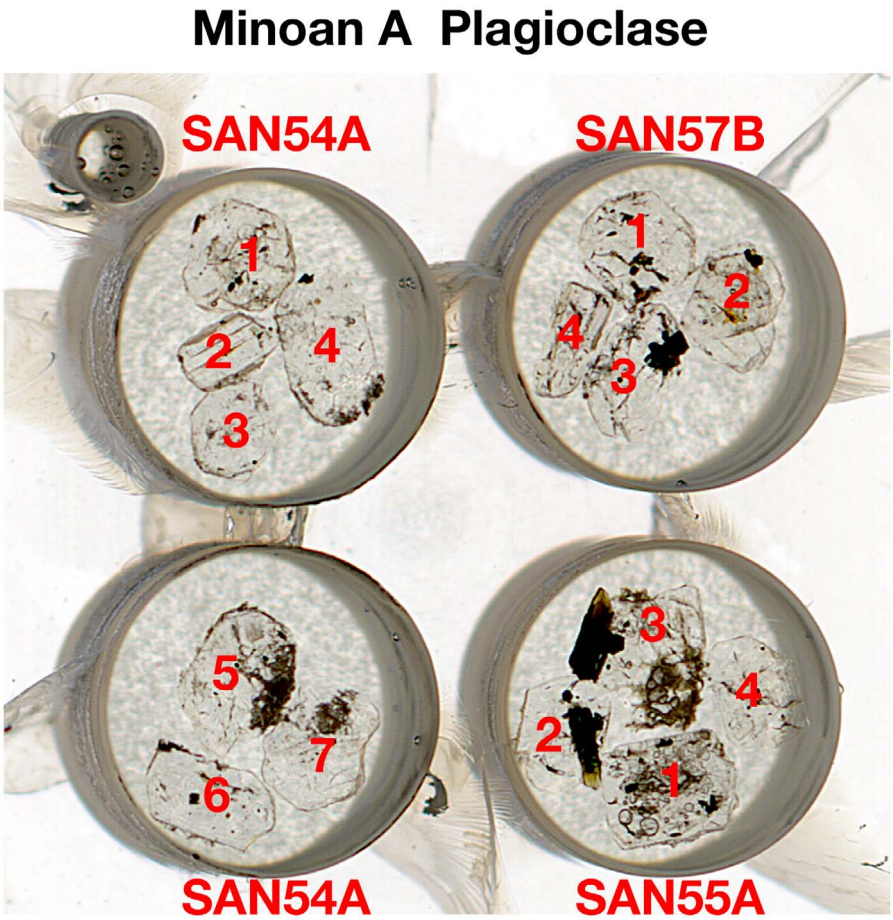


Fig. A.26. Sample SAN55A: Clear crystals are pl grains. Brown crystals are opx grains and green crystals are cpx grains.

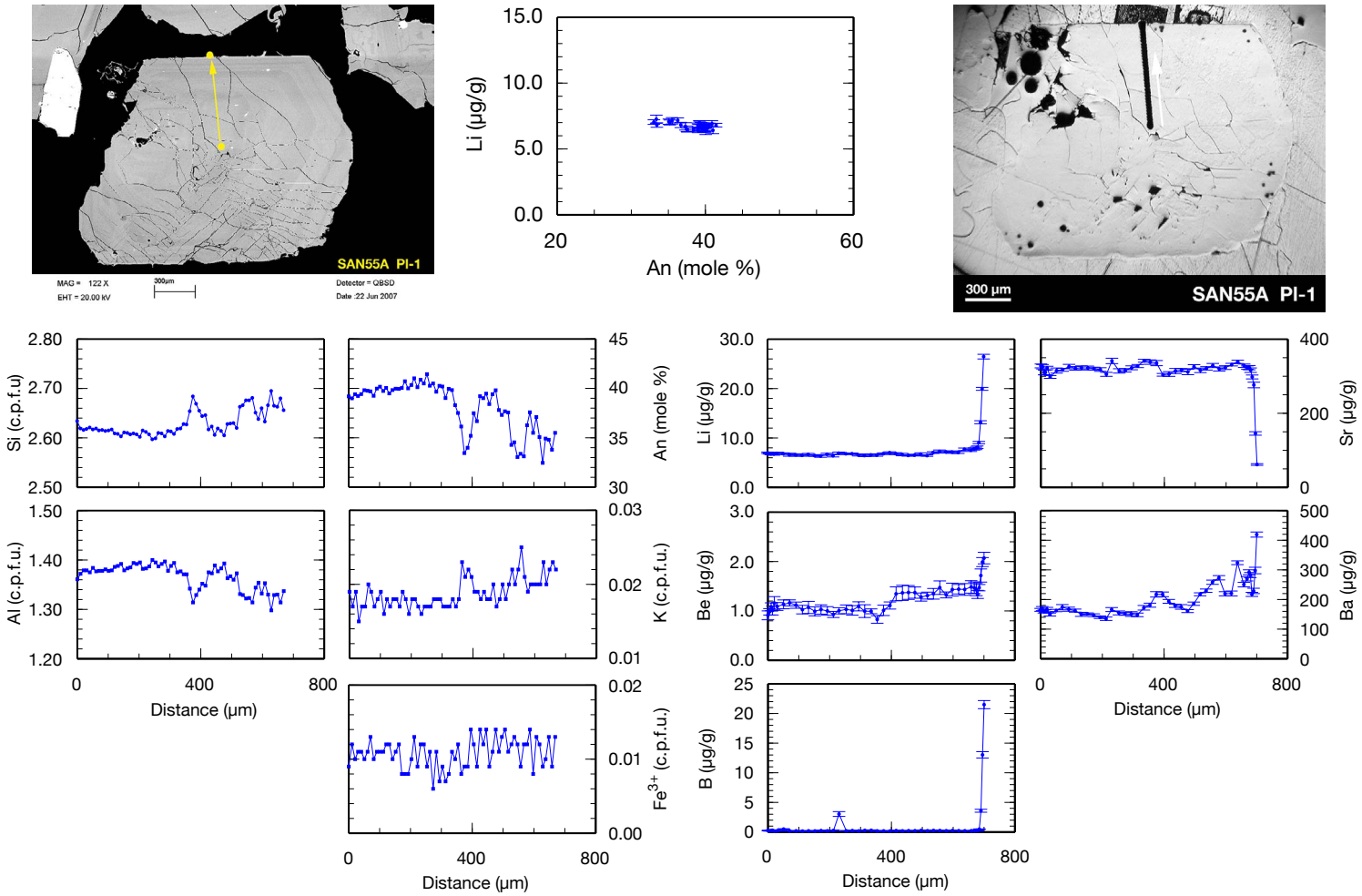


Fig. A.27. SAN55A: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

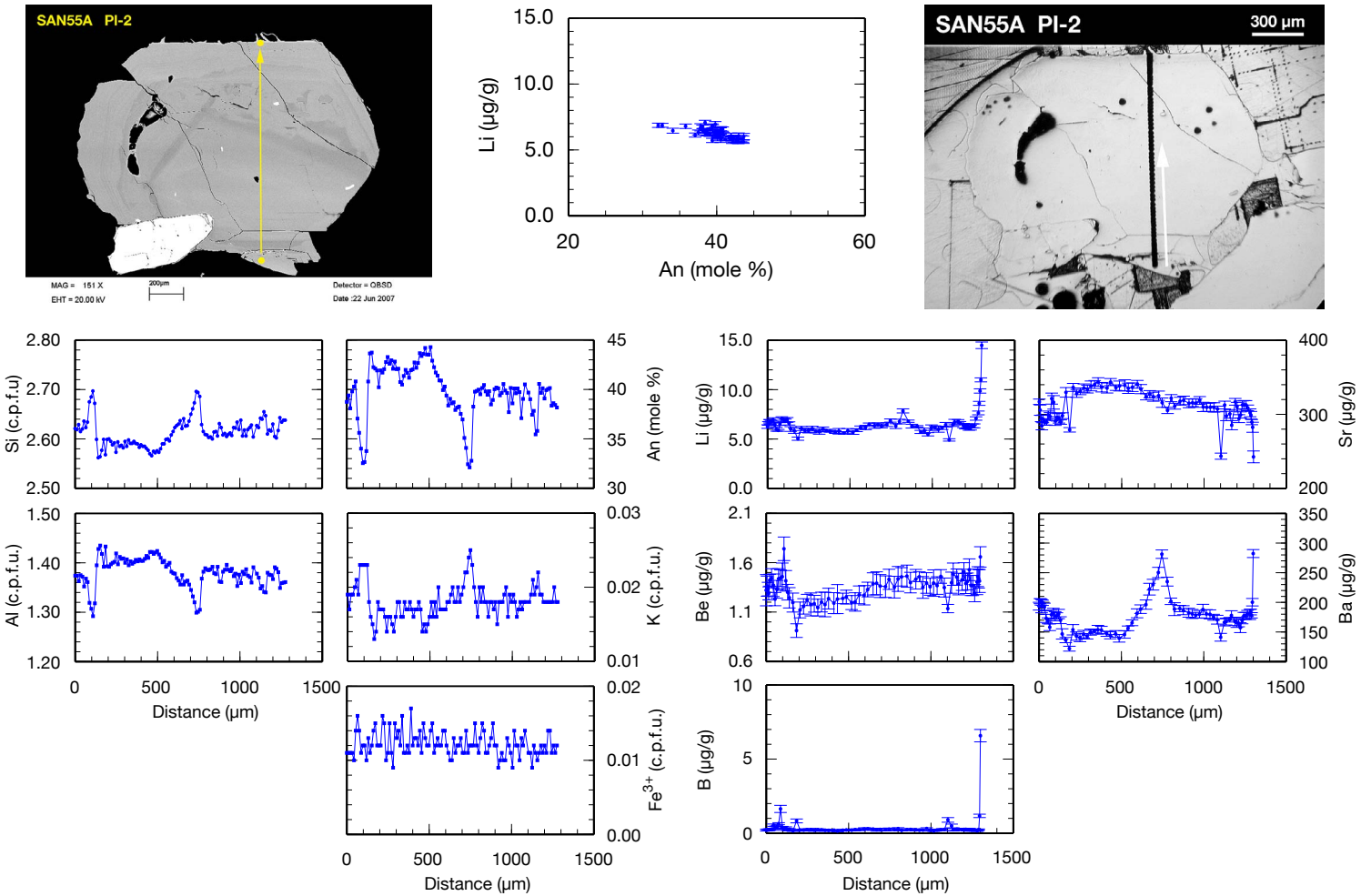


Fig. A.28. SAN55A: Pl-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

A.0.8. Overview – SAN55D

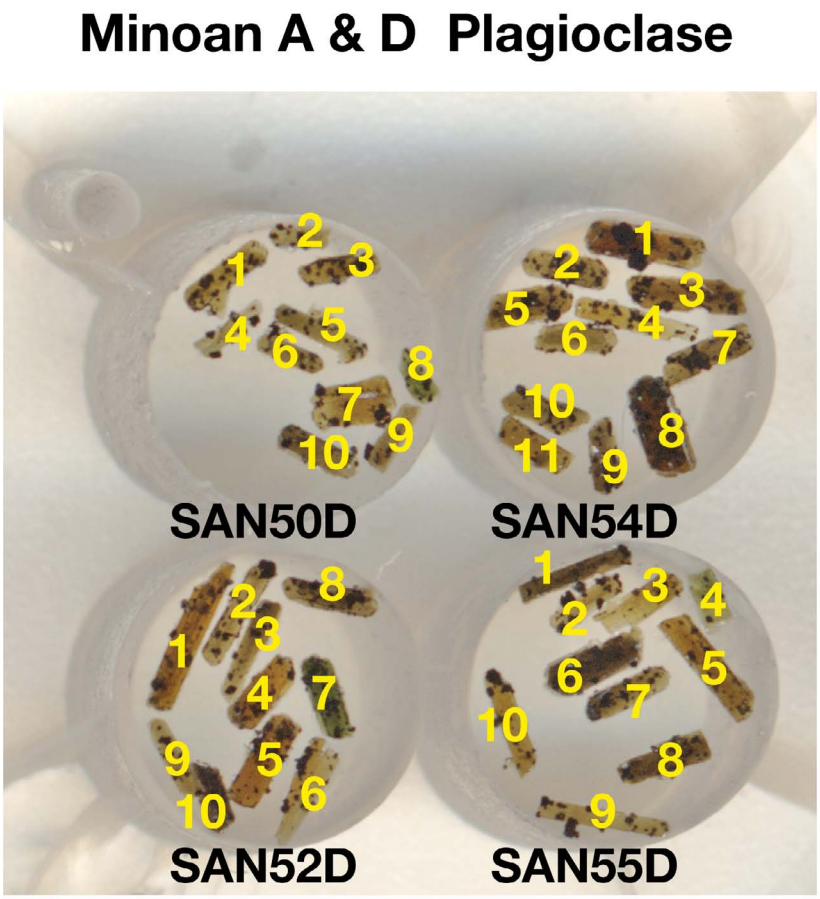


Fig. A.29. Sample SAN52D: Brown crystals are opx grains and green crystals are cpx grains.

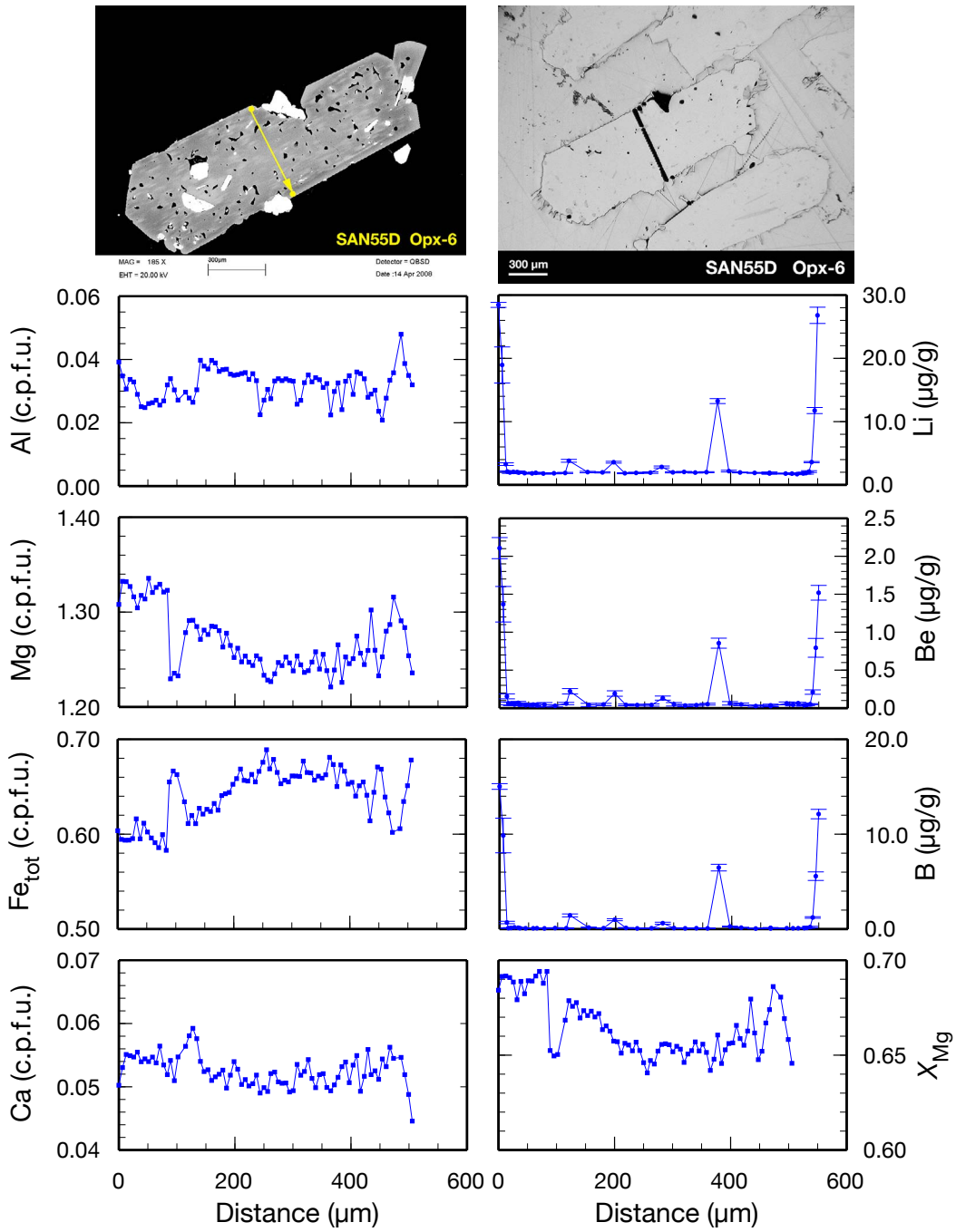


Fig. A.30. SAN55D: Opx-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

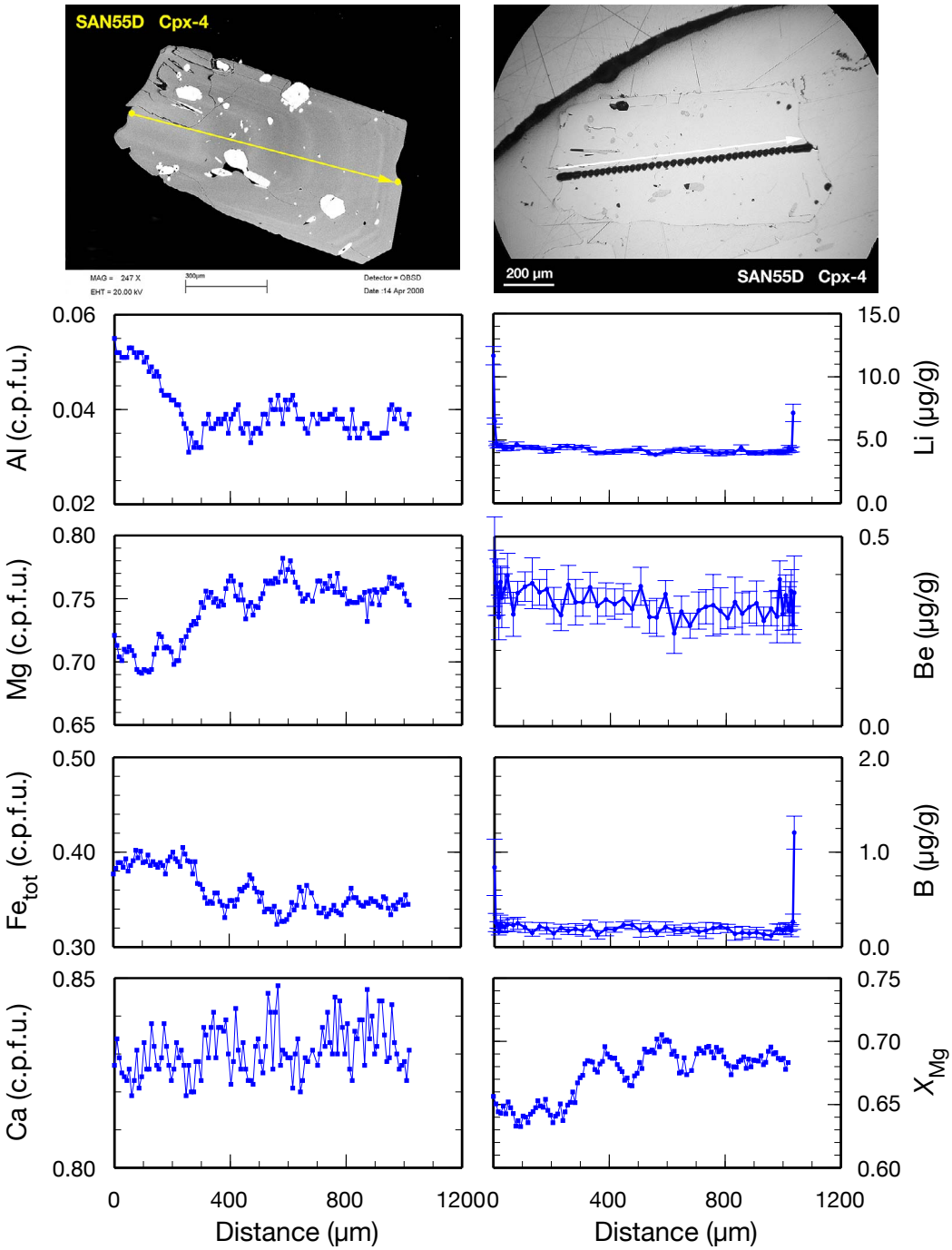


Fig. A.31. SAN55D: Cpx-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

A.0.9. Overview – SAN57A

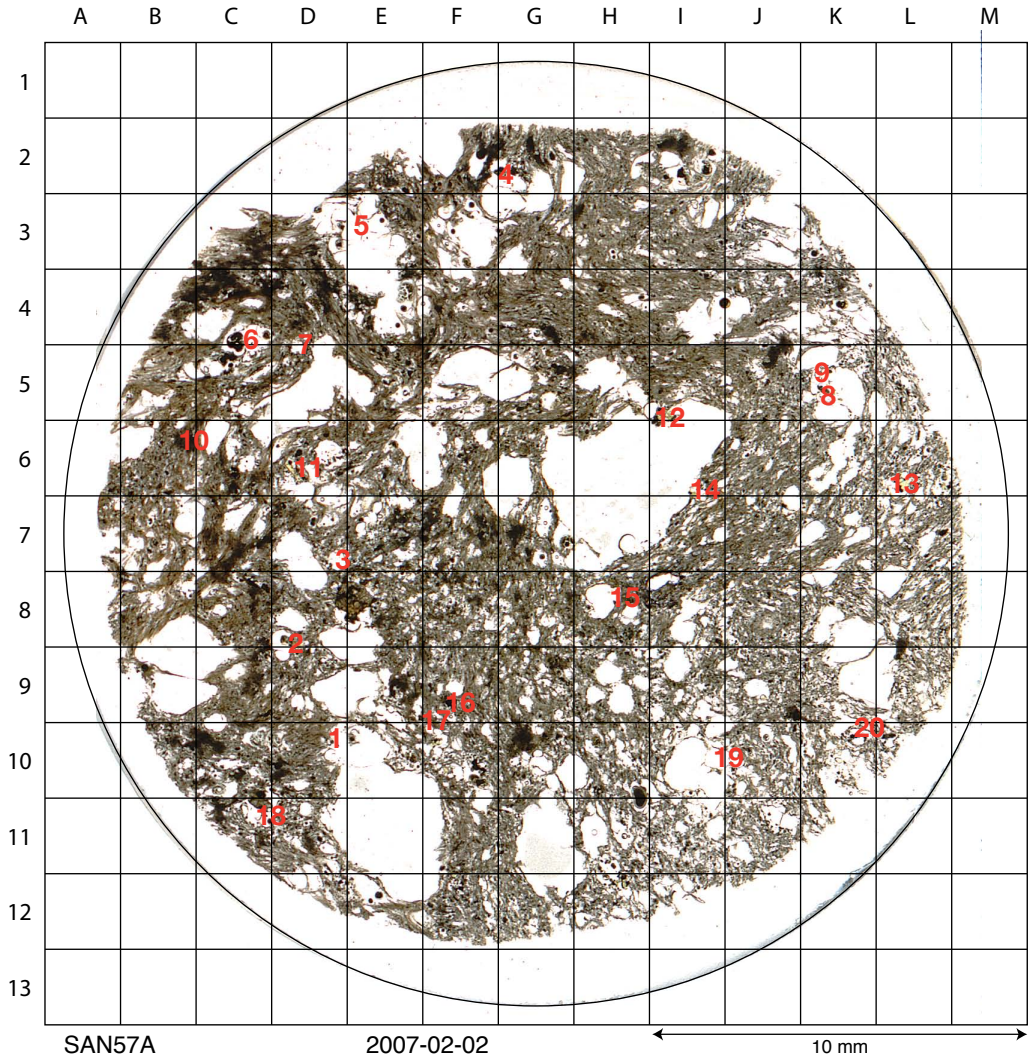


Fig. A.32. Thin section of sample SAN57A.

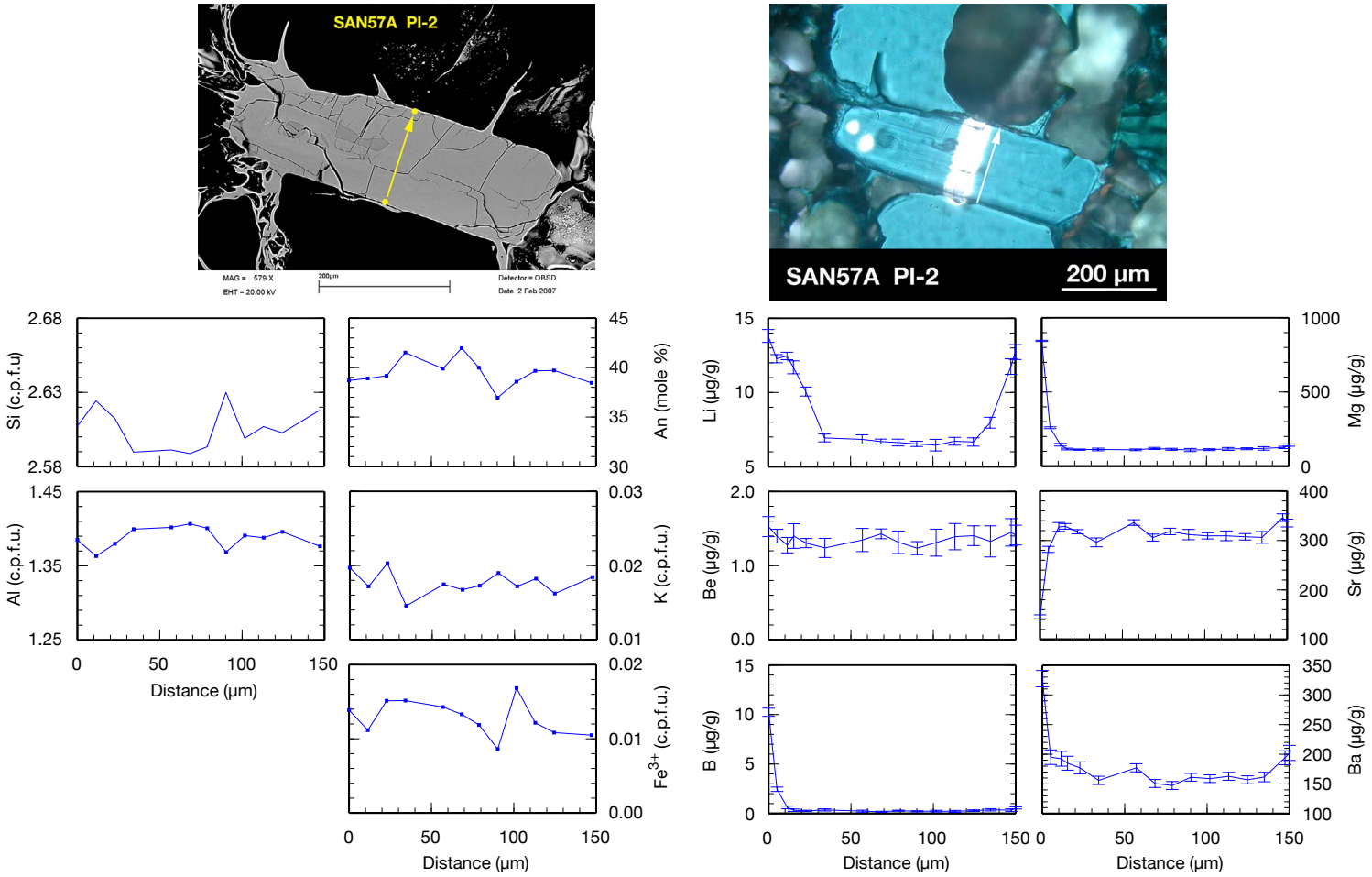


Fig. A.33. SAN57A: Pl-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

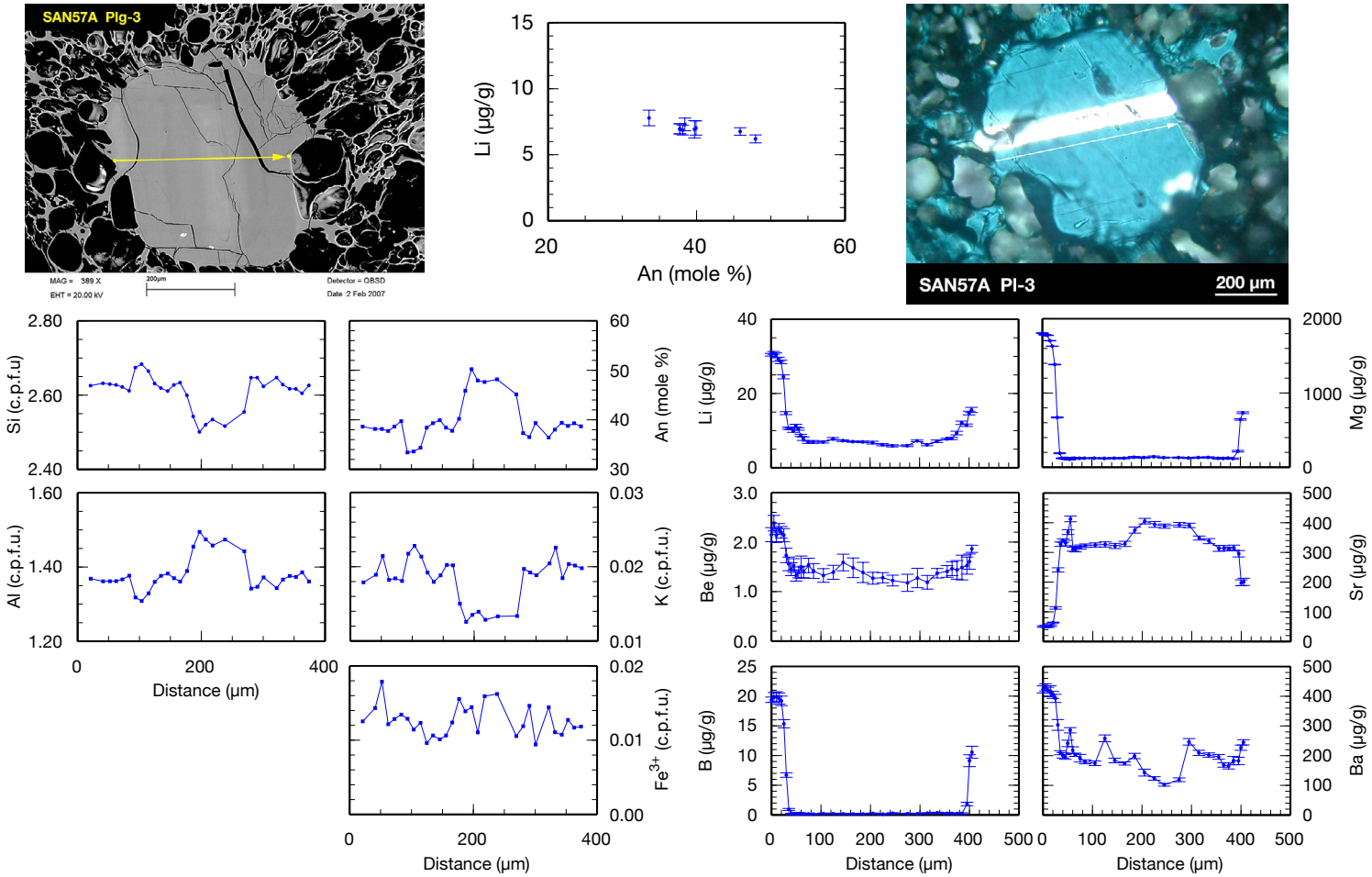


Fig. A.34. SAN57A: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

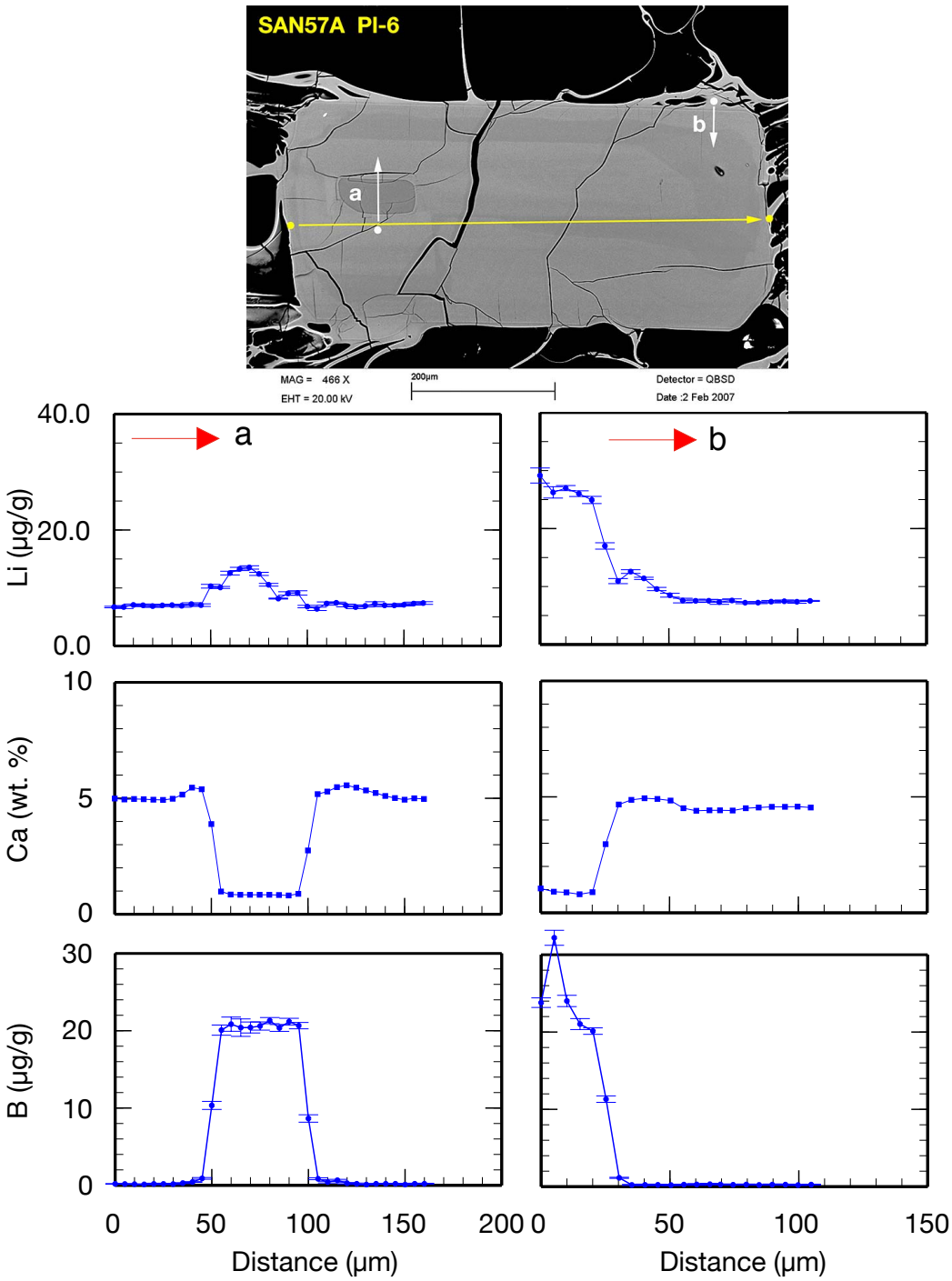


Fig. A.35. SAN57A Pl-6: Short SIMS profiles to detect/exclude diffusion of Li from glass selvage into pl crystal or from inclusion into pl.

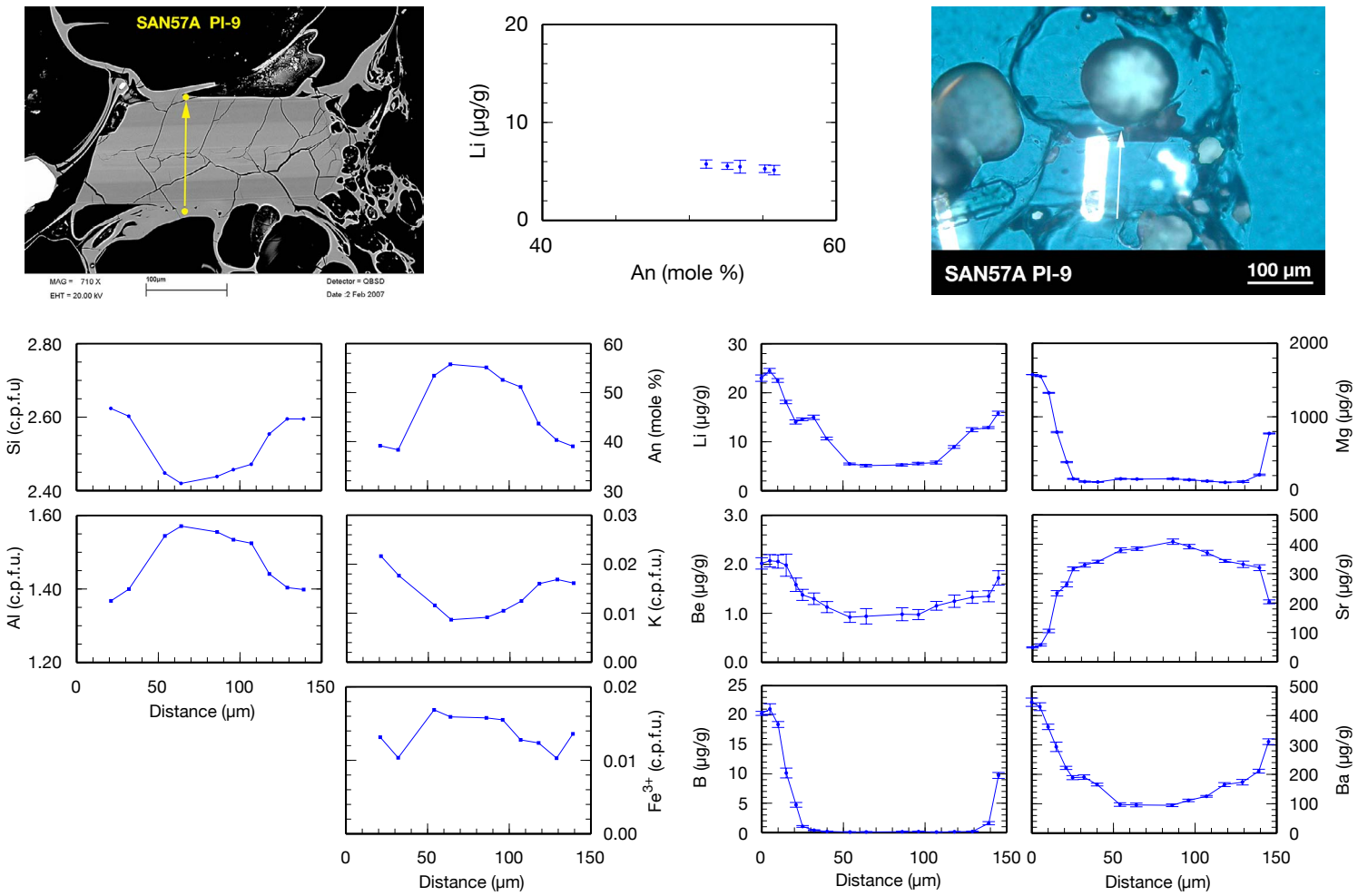


Fig. A.36. SAN57A: Pl-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

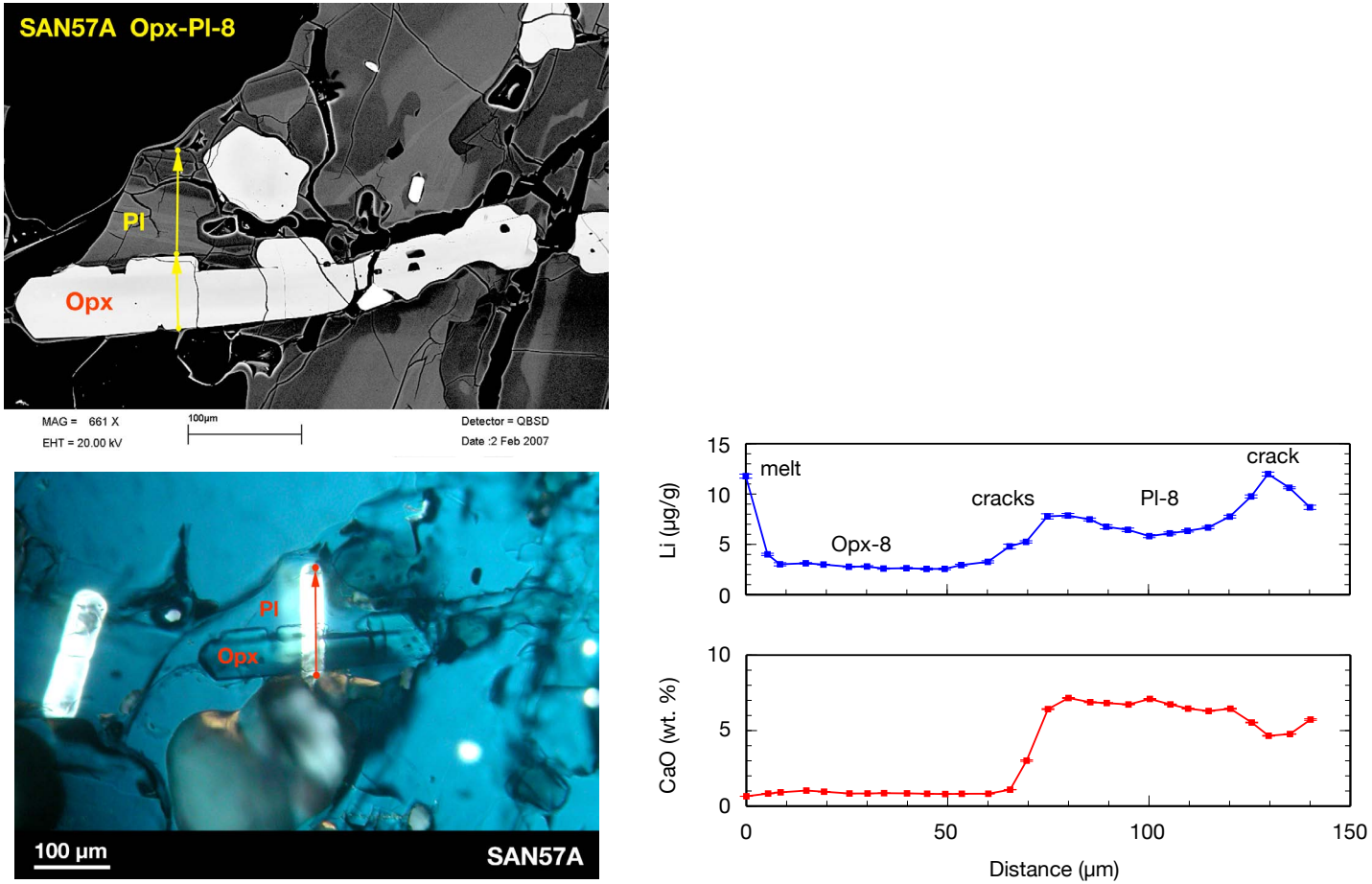


Fig. A.37. SAN57A: Opx-Pl-8. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

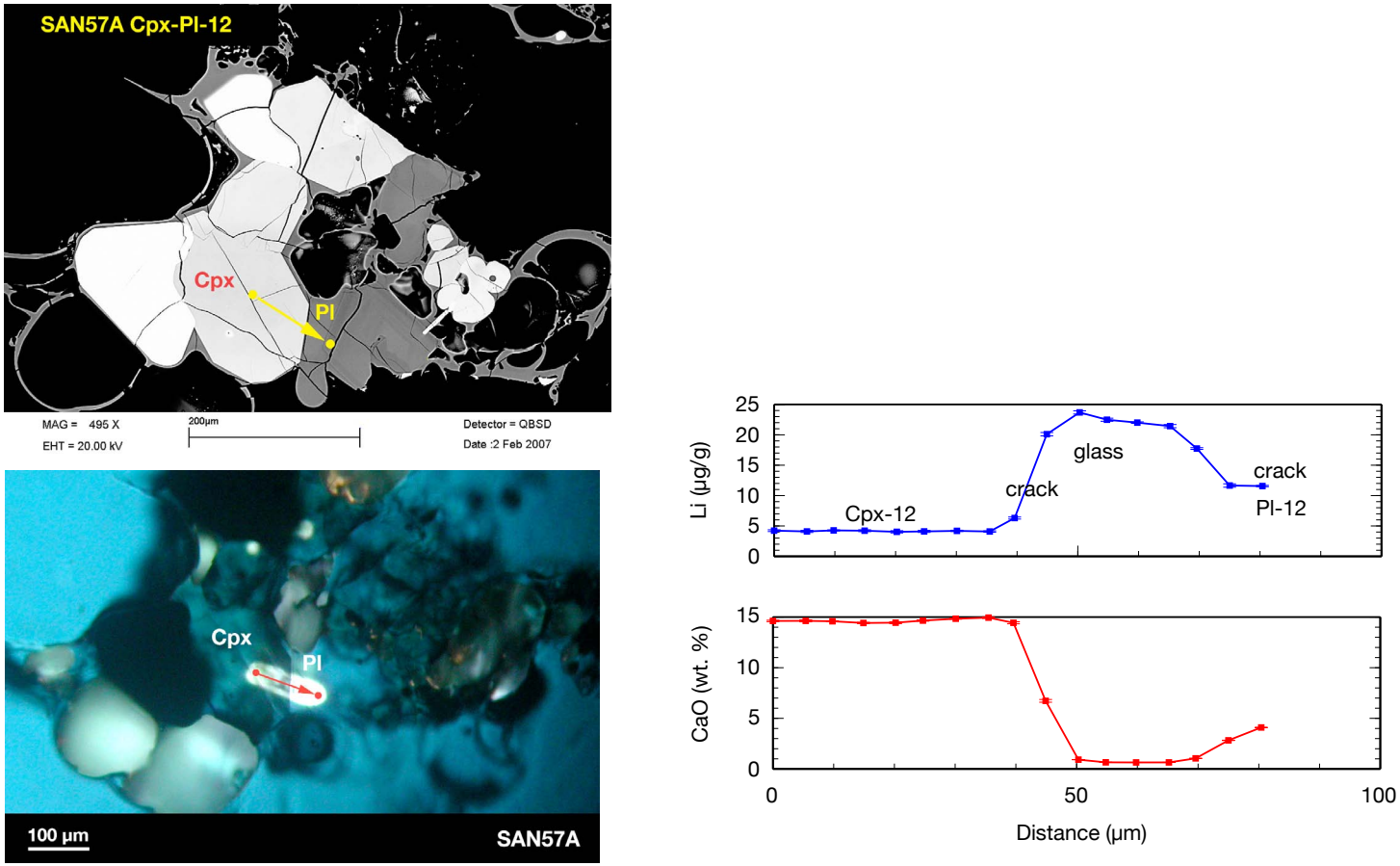


Fig. A.38. SAN57A: Cpx-Pl-12. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

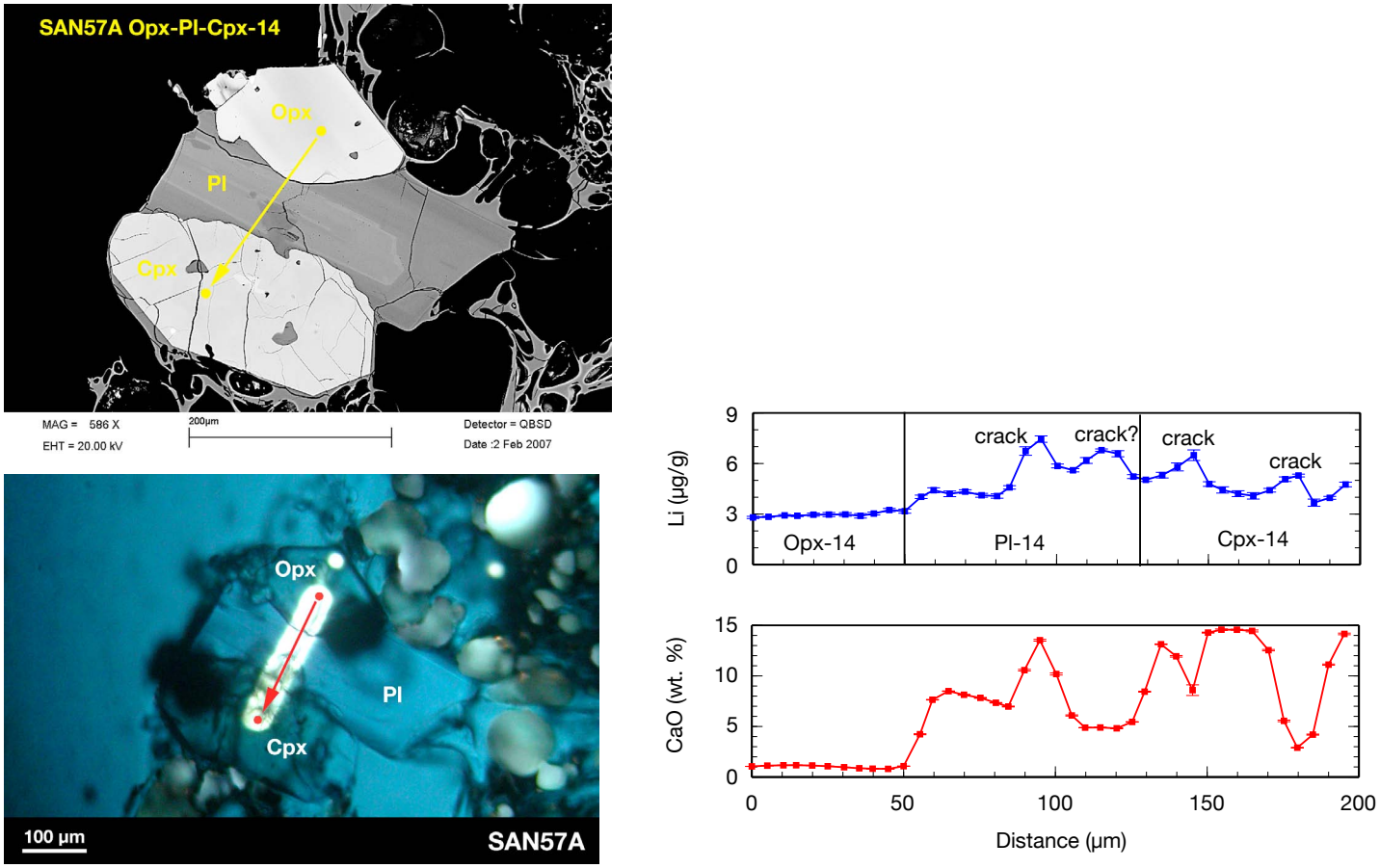


Fig. A.39. SAN57A: Opx-Pl-Cpx-14. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

A.0.10. Overview – SAN57B

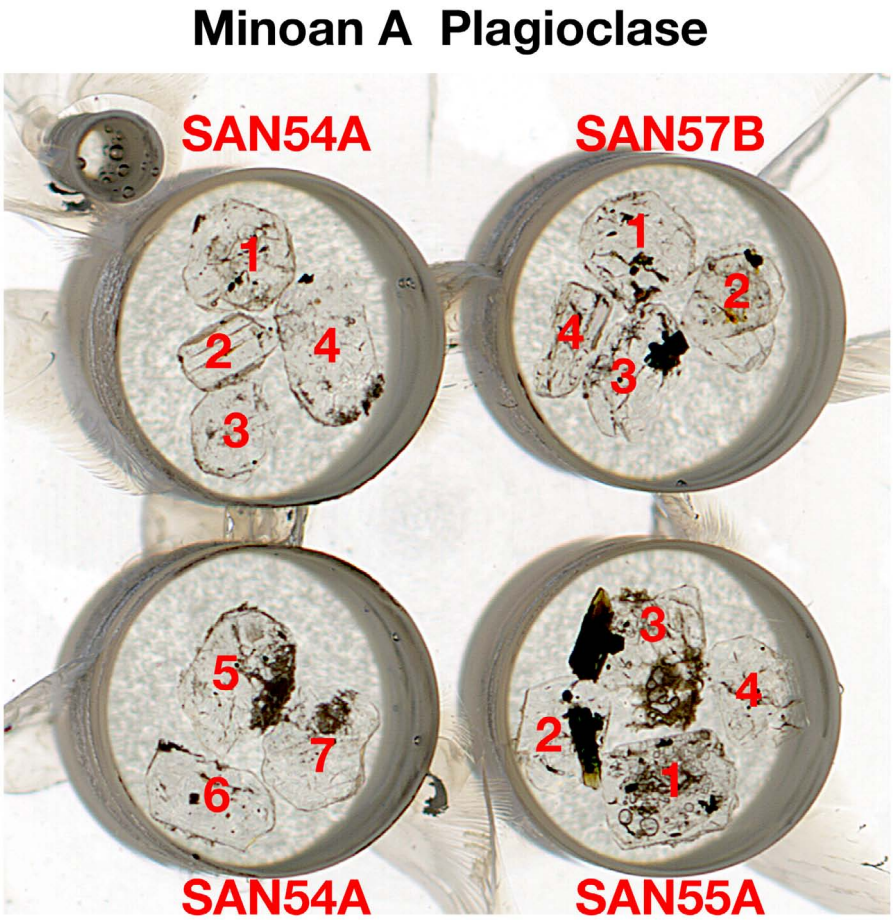


Fig. A.40. Sample SAN57B: Clear crystals are pl grains. Brown crystals are opx grains and green crystals are cpx grains.

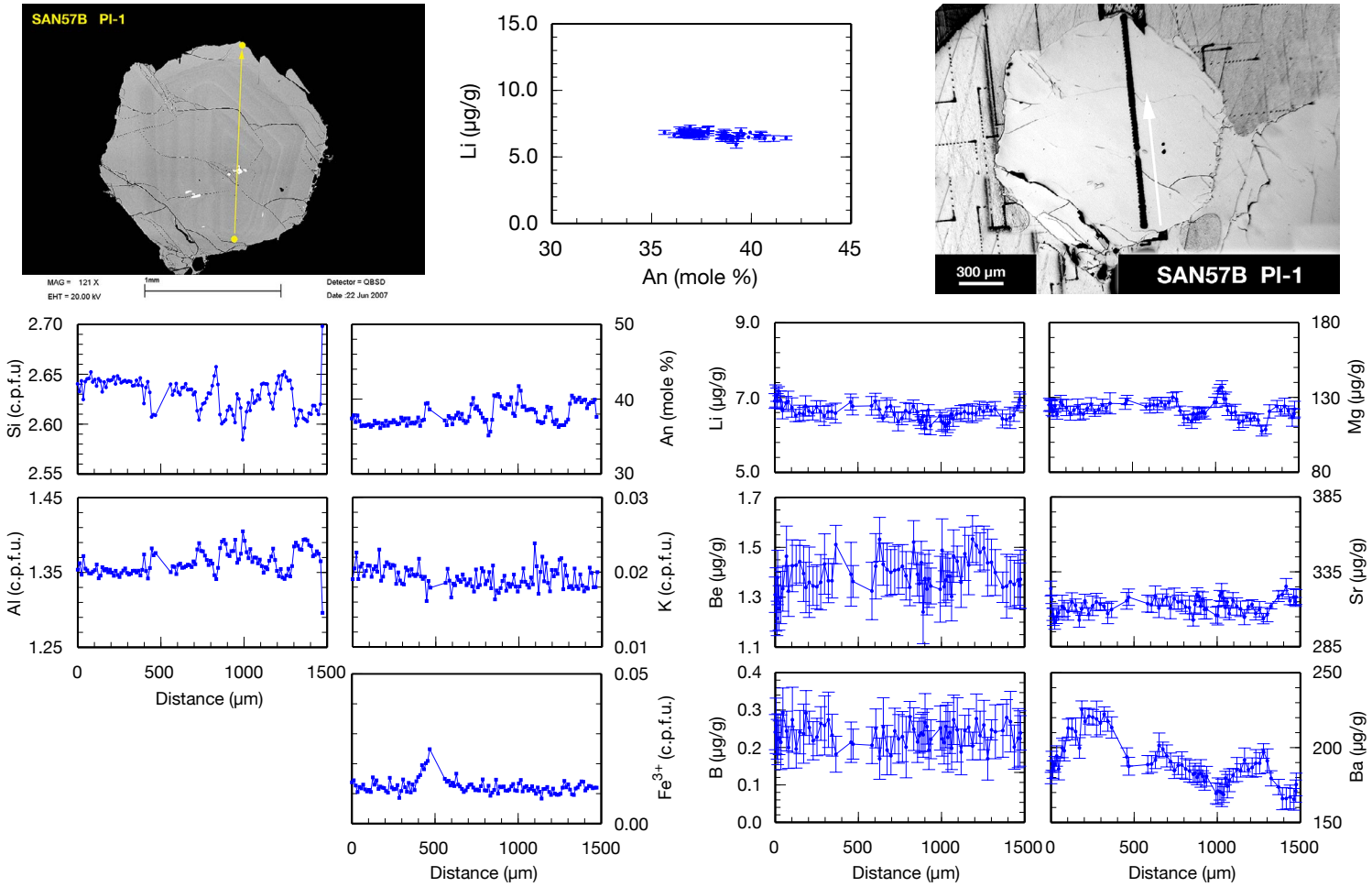


Fig. A.41. SAN57B: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

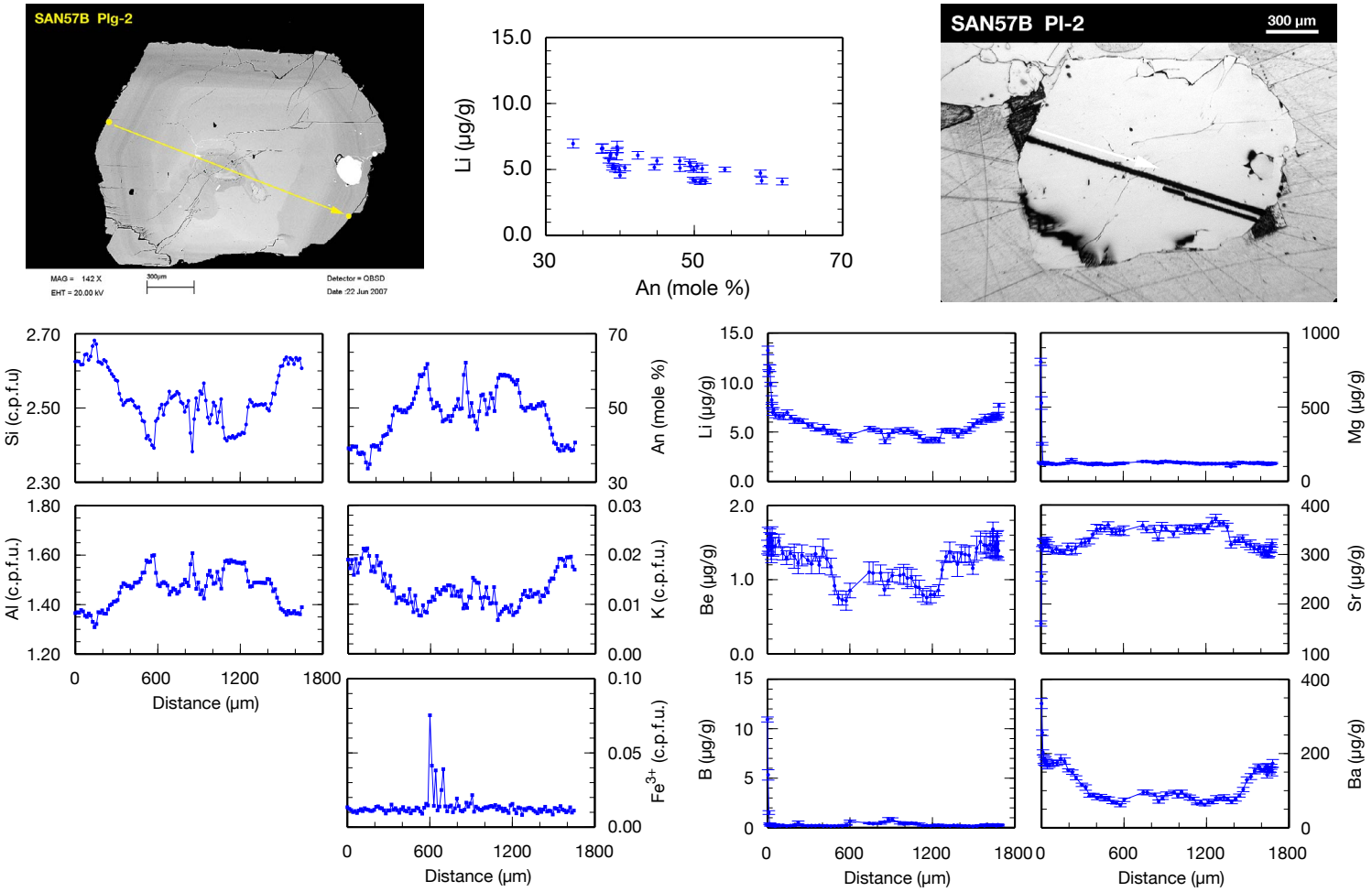


Fig. A.42. SAN57B: Pl-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

A.0.11. Overview – SAN57D

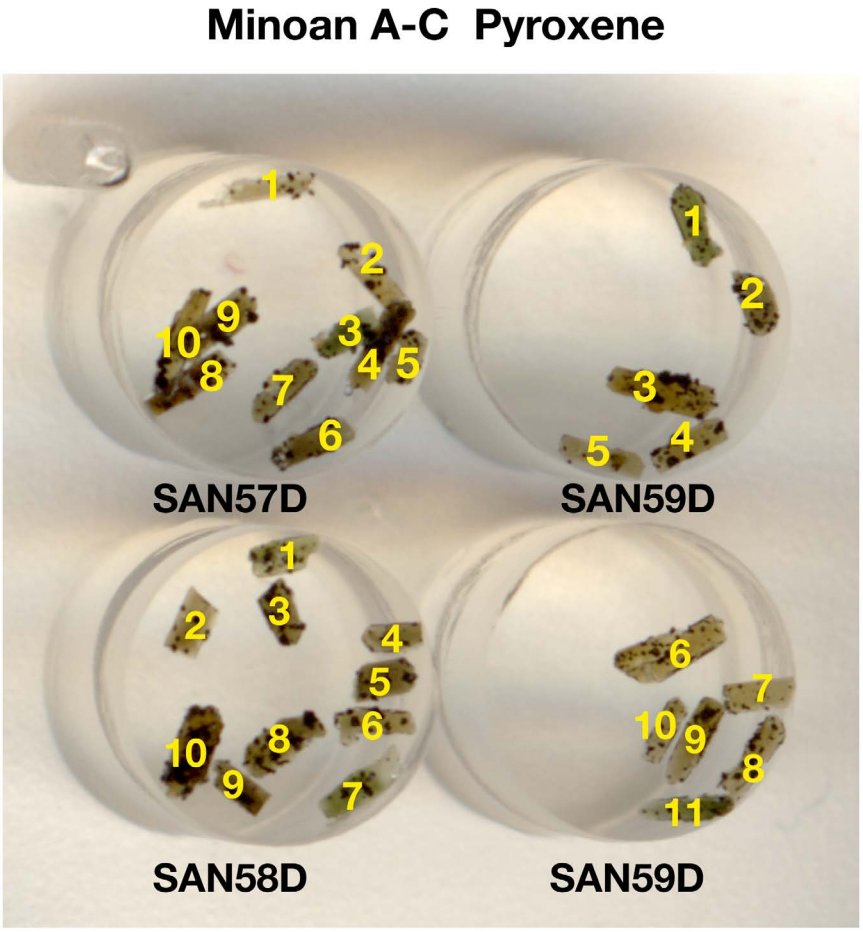


Fig. A.43. Sample SAN57D: Brown crystals are opx grains and green crystals are cpx grains.

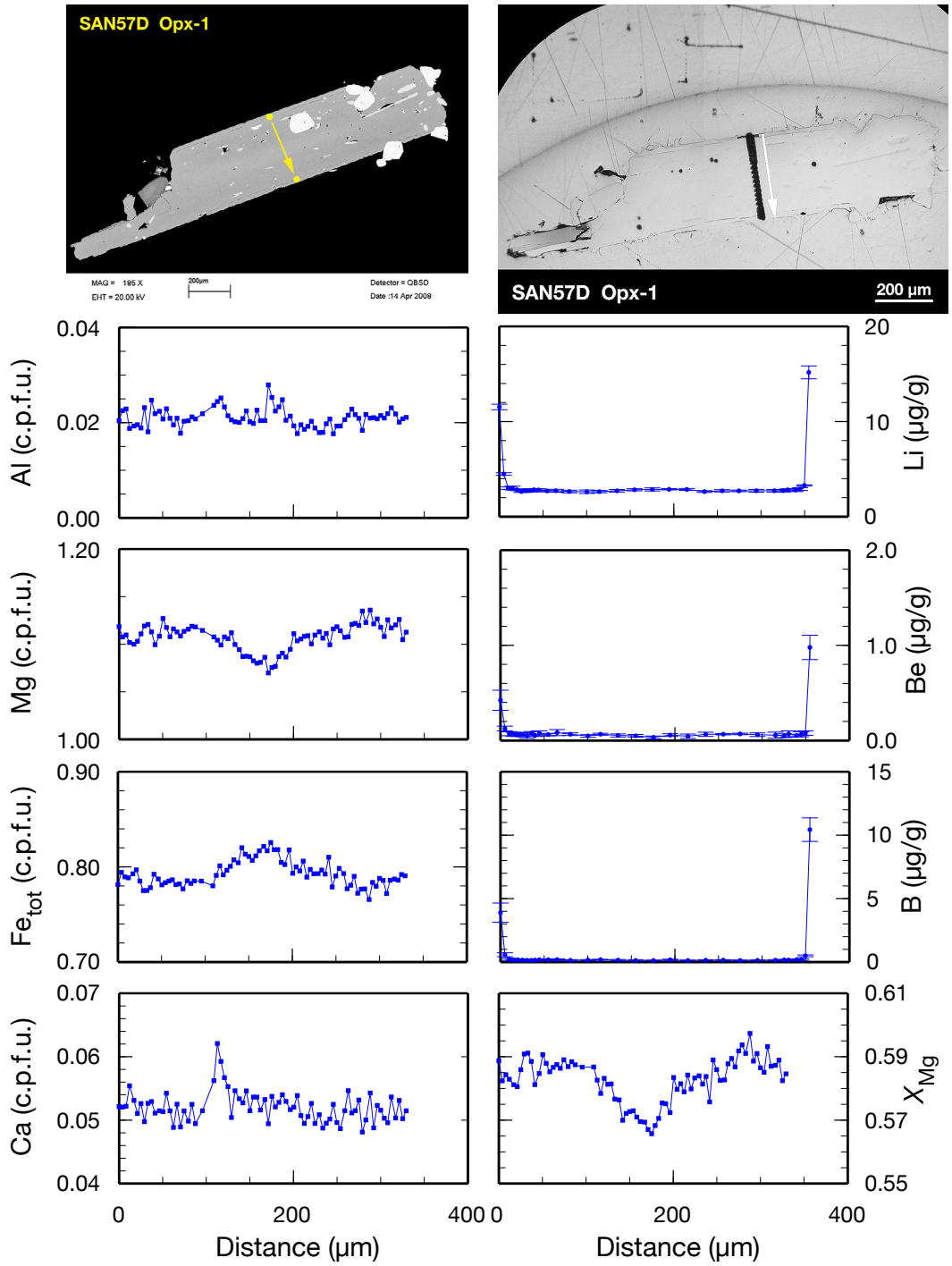


Fig. A.44. SAN57D: Opx-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

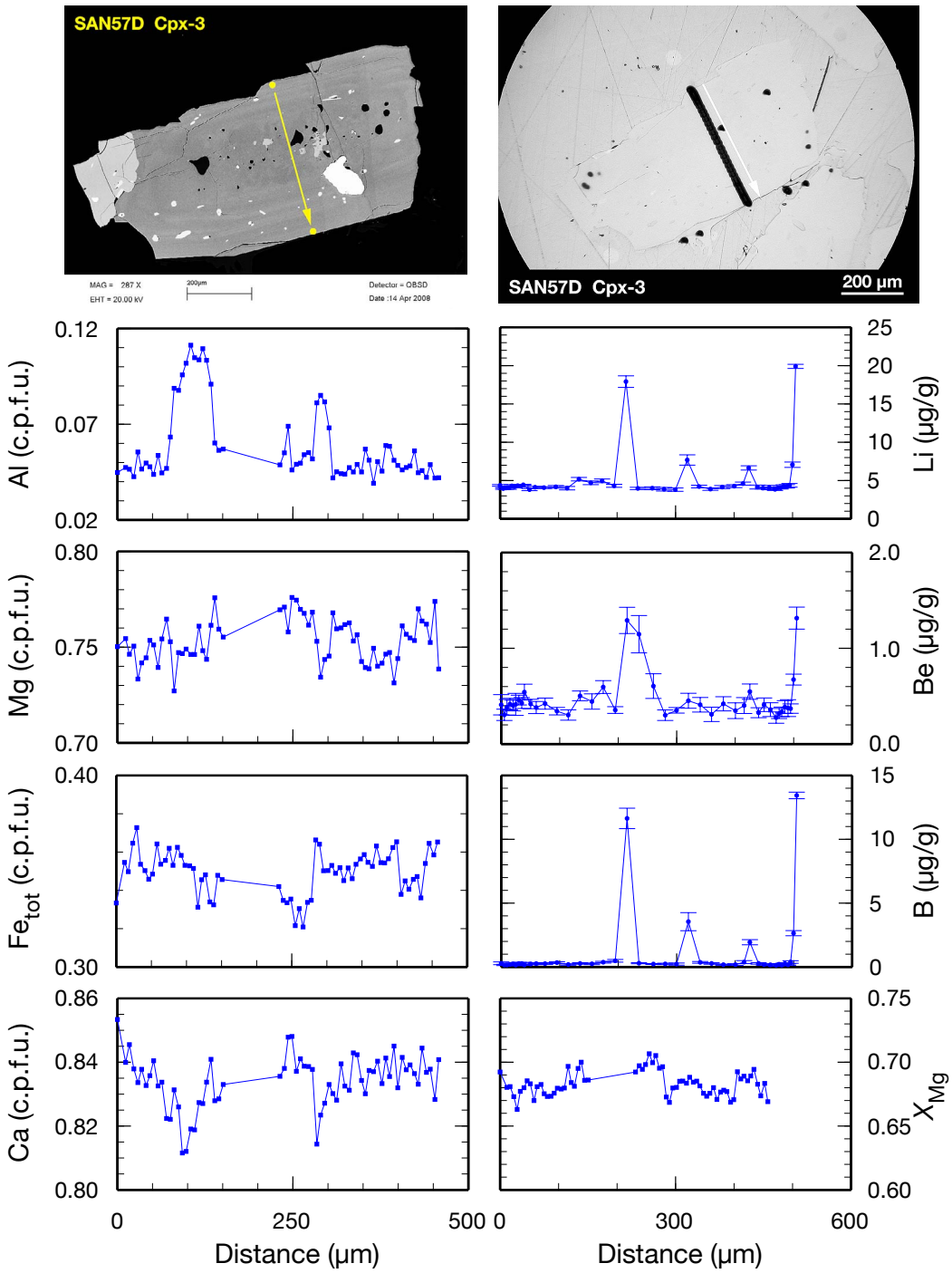


Fig. A.45. SAN57D: Cpx-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

B. Appendix – Minoan B

B.0.12. Overview – SAN58A

Fig. B.1. Sample SAN58A: Clear crystals are plagioclase grains.

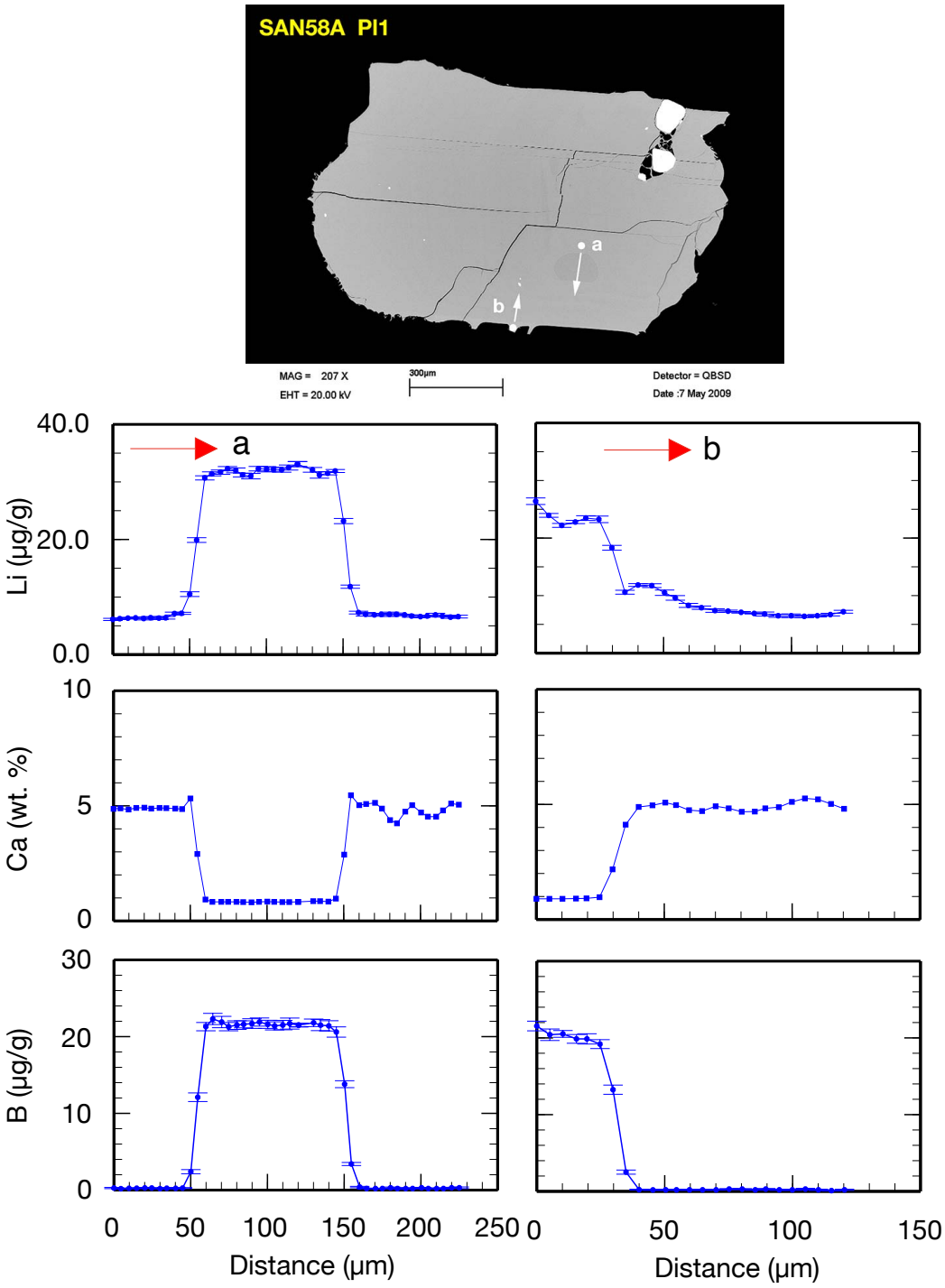


Fig. B.2. SAN58A: Pl-1. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

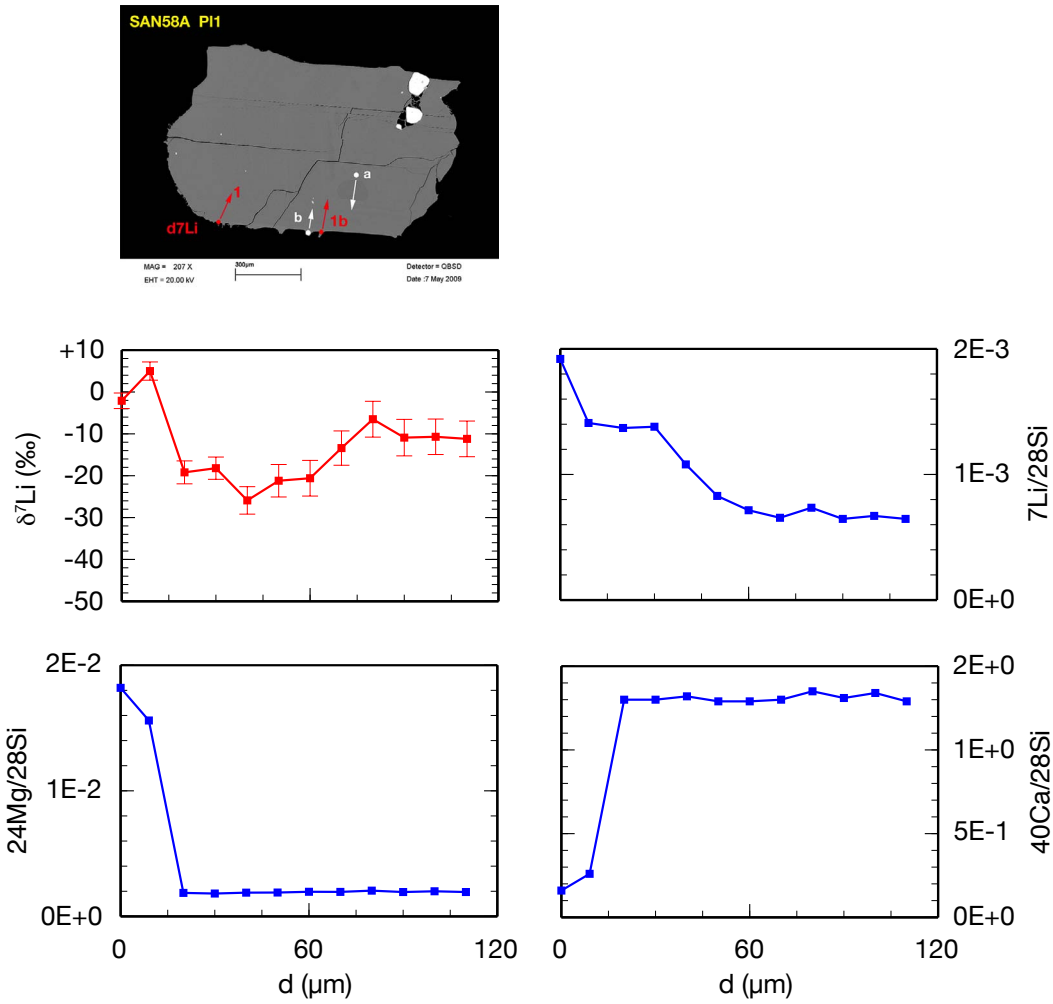


Fig. B.3. SAN58A: Pl-1. Short δ^7Li SIMS profile. The red arrows mark the δ^7Li profiles; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

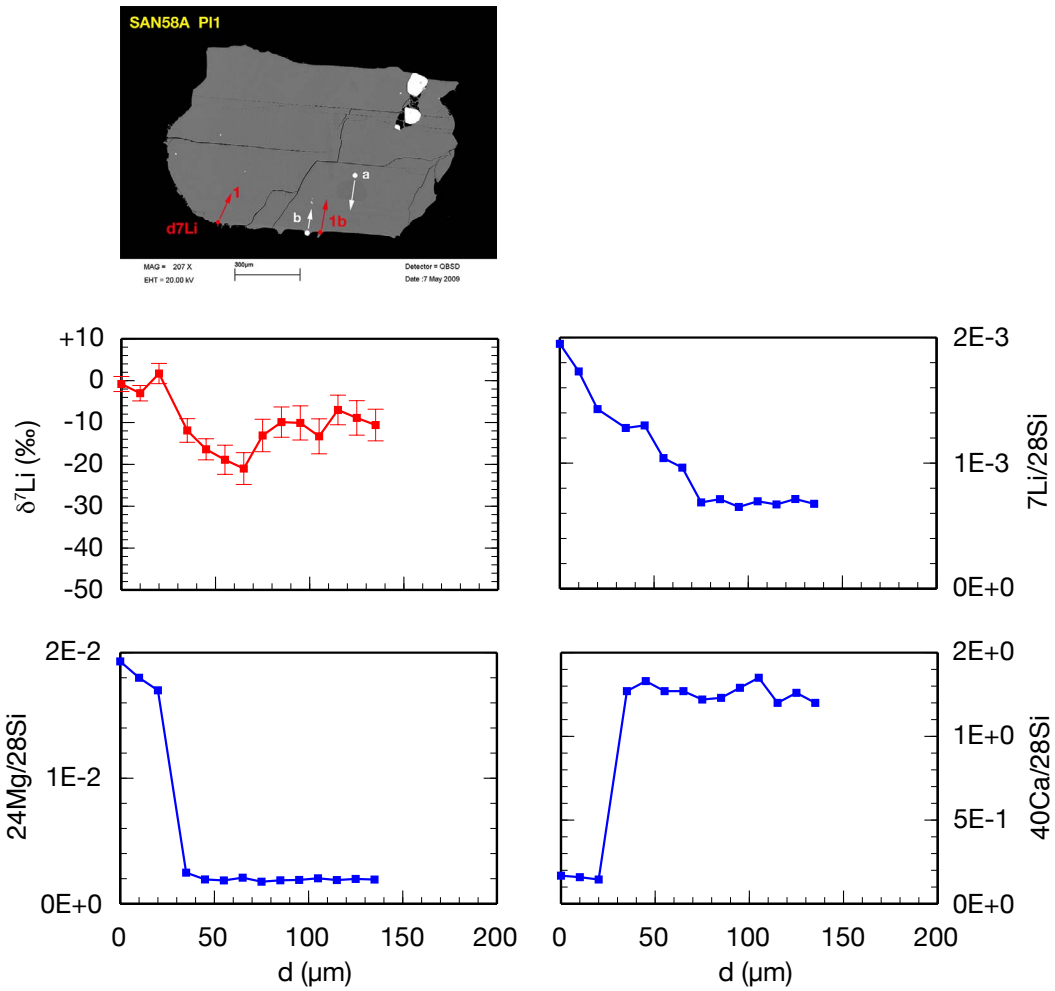


Fig. B.4. SAN58A: Pl-1b. Short δ^7Li SIMS profile. The red arrows mark the δ^7Li profiles; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

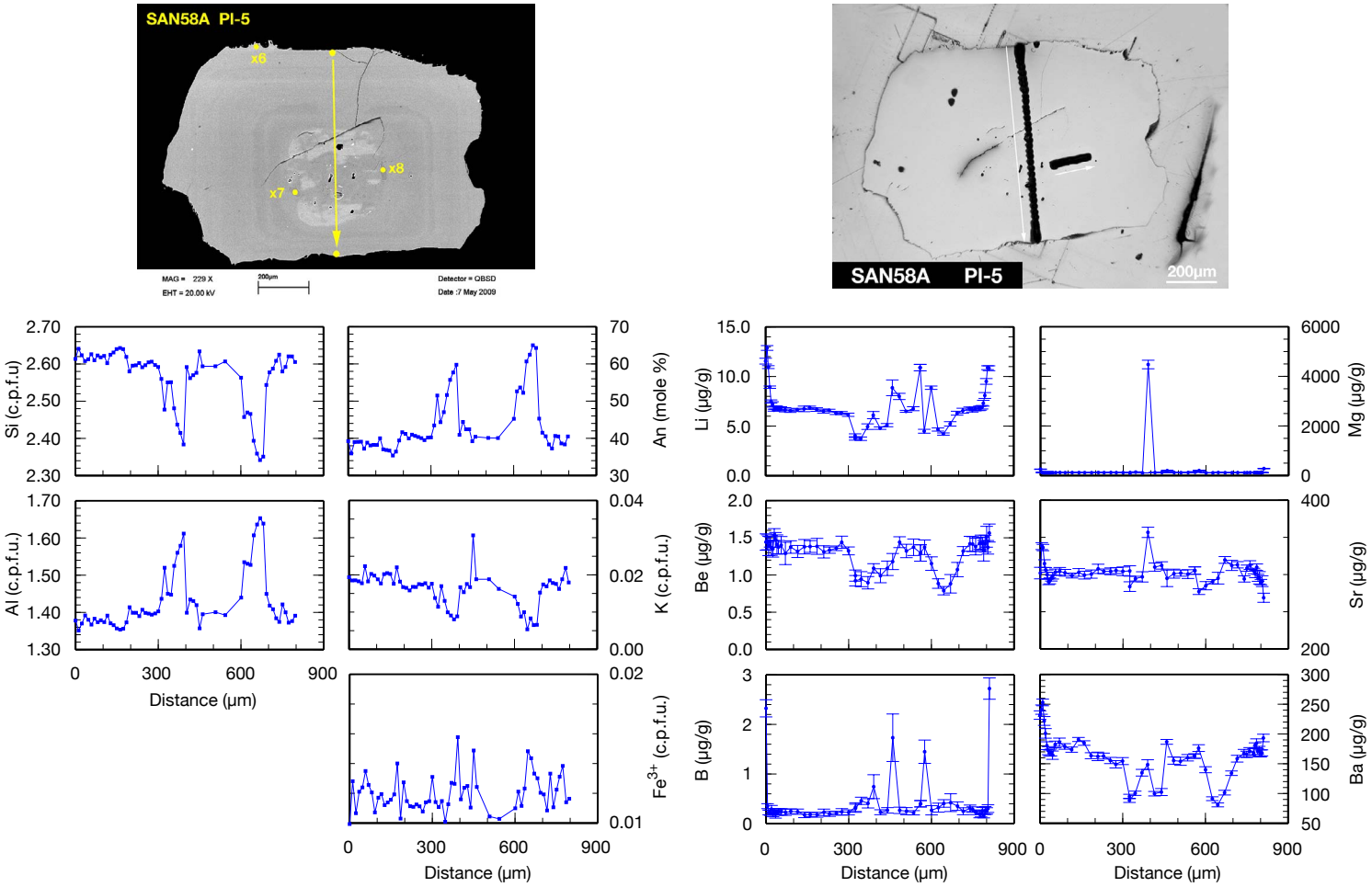


Fig. B.5. SAN58A: Pl-5. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

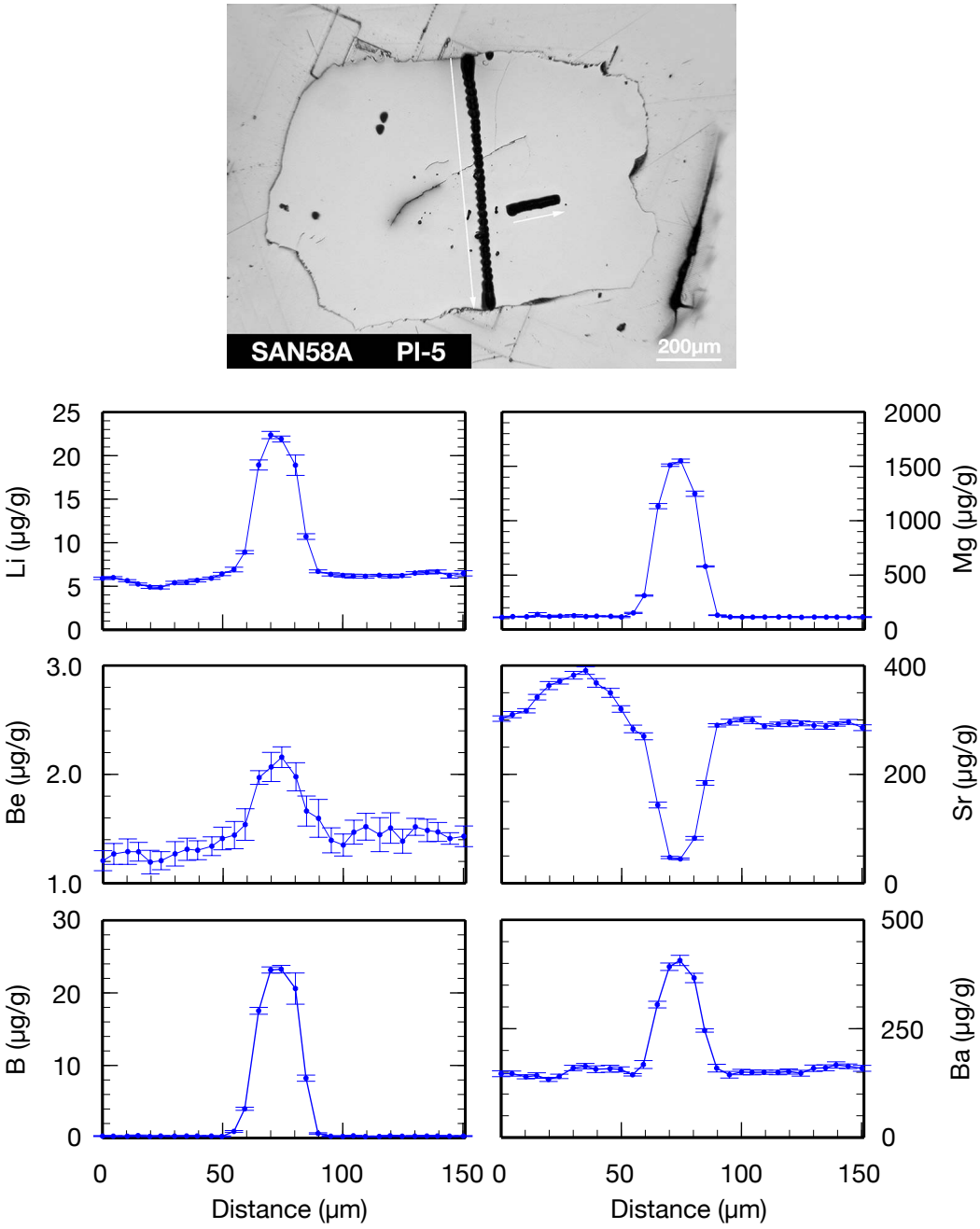


Fig. B.6. SAN58A: Pl-5. SIMS profile through glass inclusion.

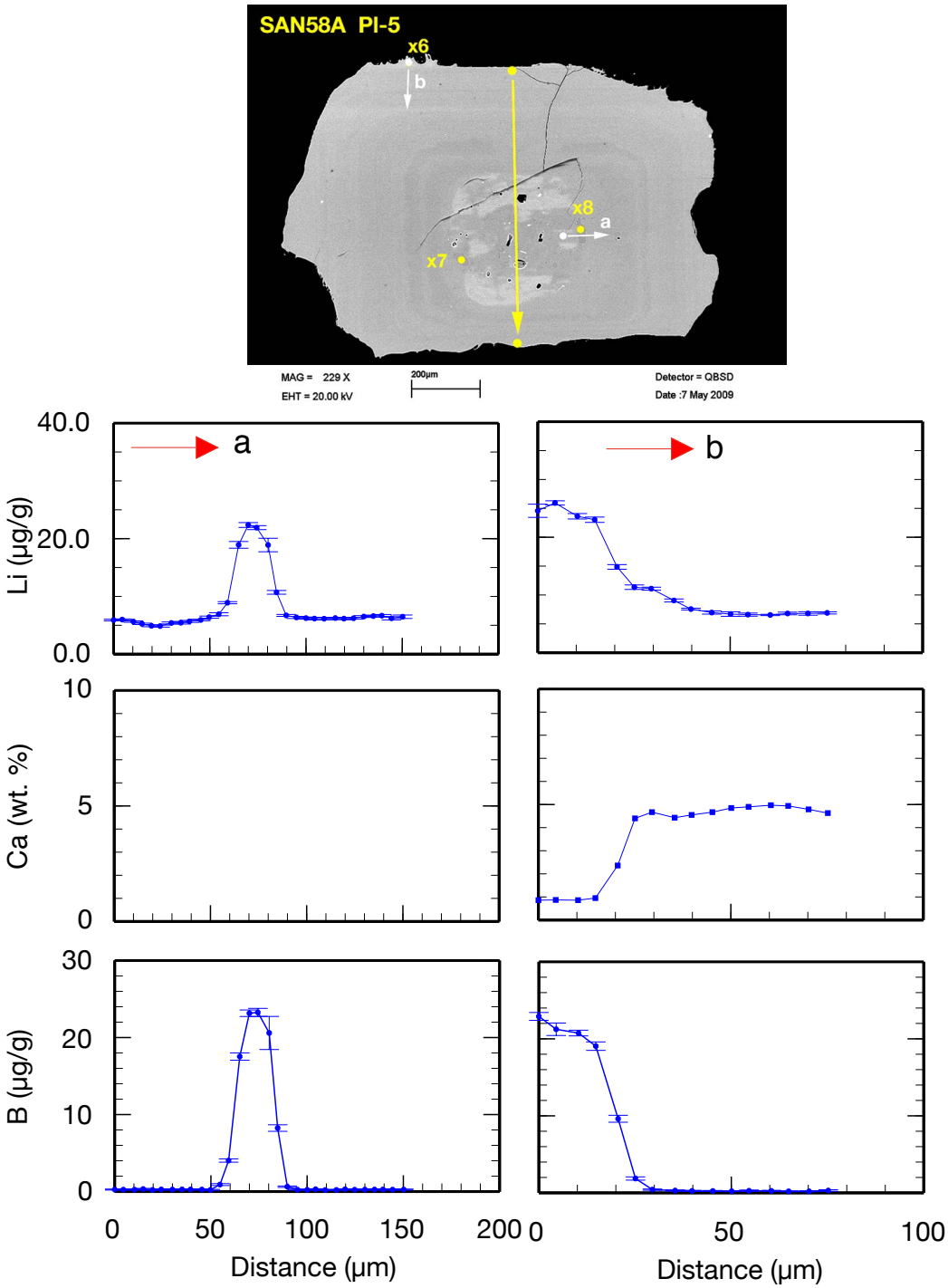


Fig. B.7. SAN58A: Pl-5. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase..

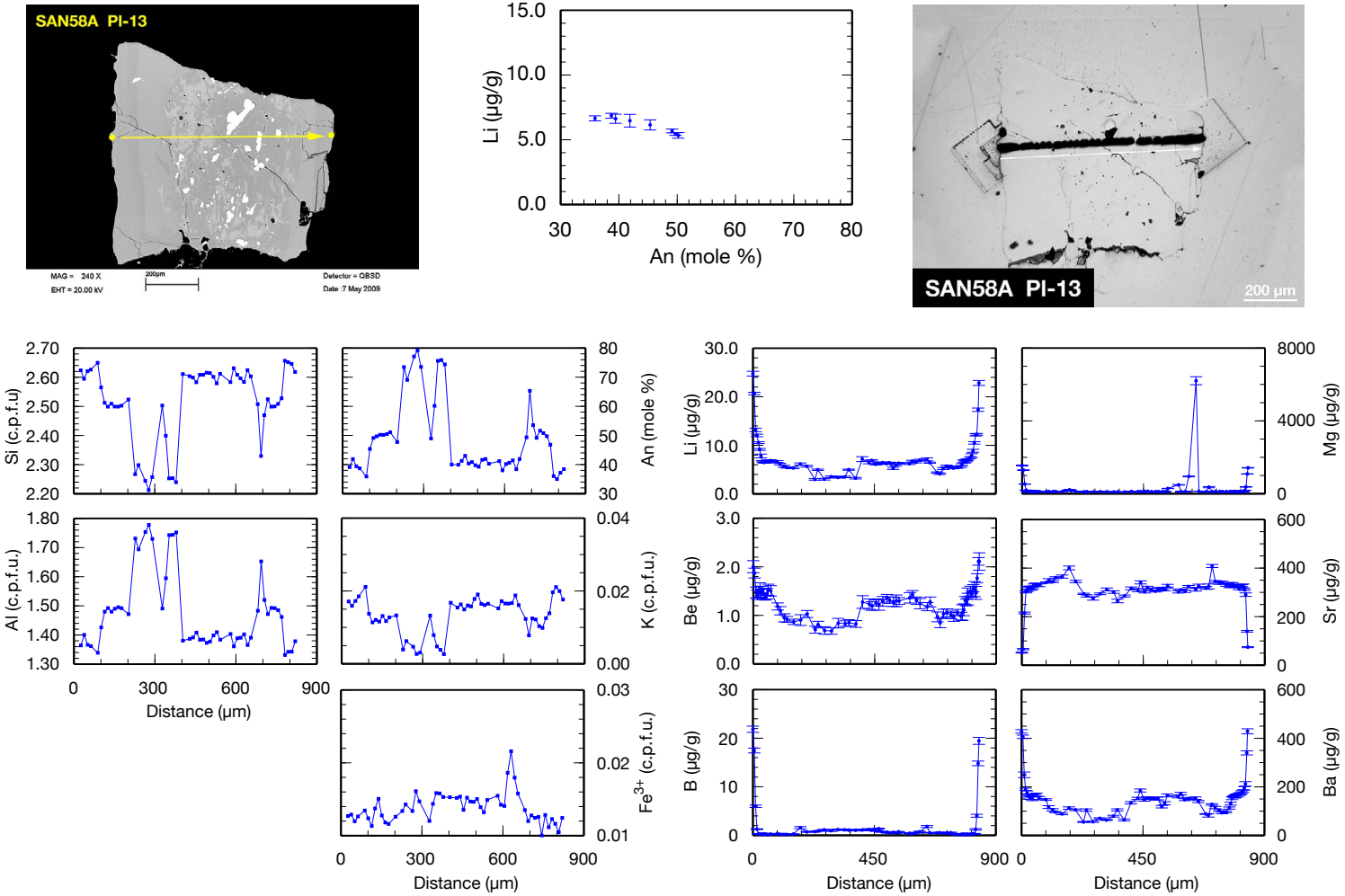


Fig. B.8. SAN58A: Pl-13. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

B.0.13. Overview – SAN58C

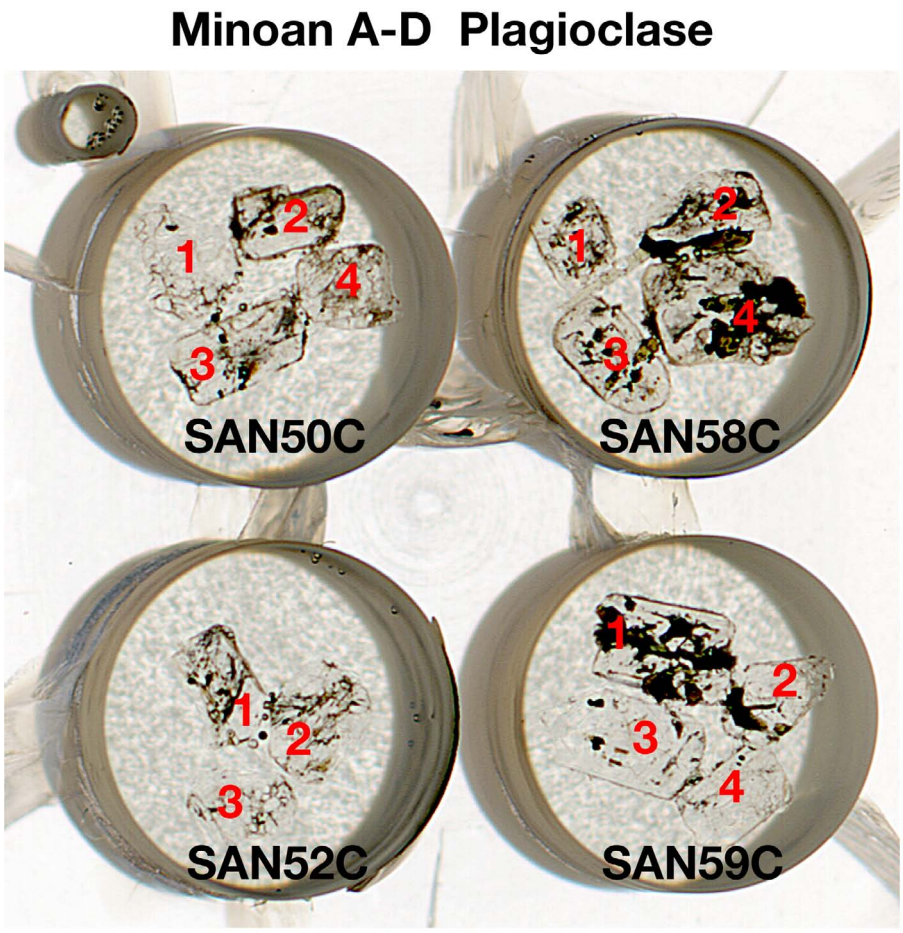


Fig. B.9. Sample SAN58C: Clear crystals are plagioclase grains.

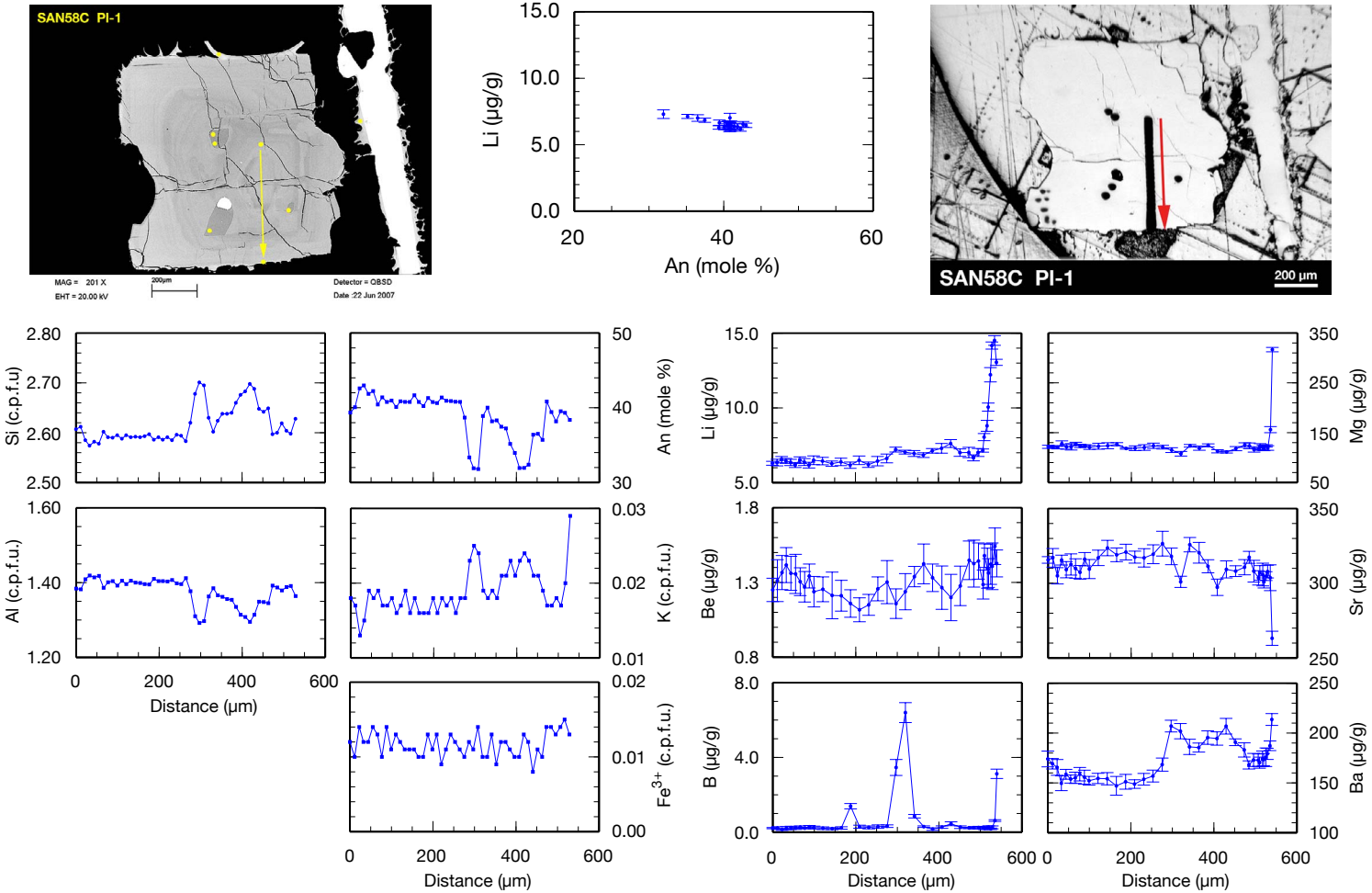


Fig. B.10. SAN58C: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

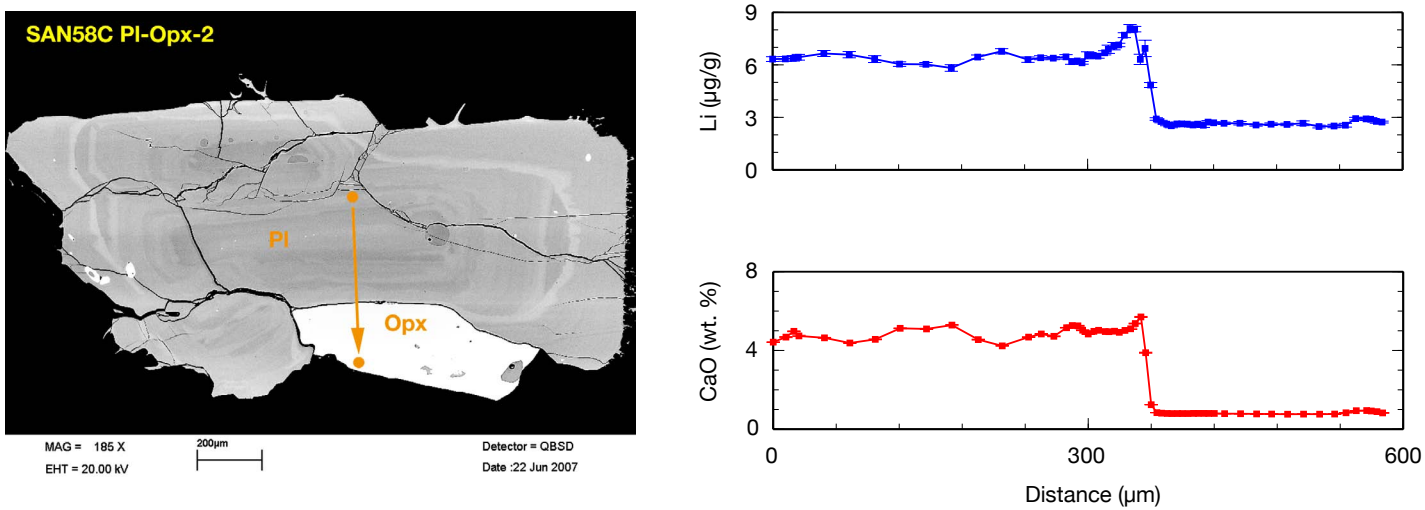


Fig. B.11. SAN58C: Pl-Opx-2. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.

B.0.14. Overview – SAN58D

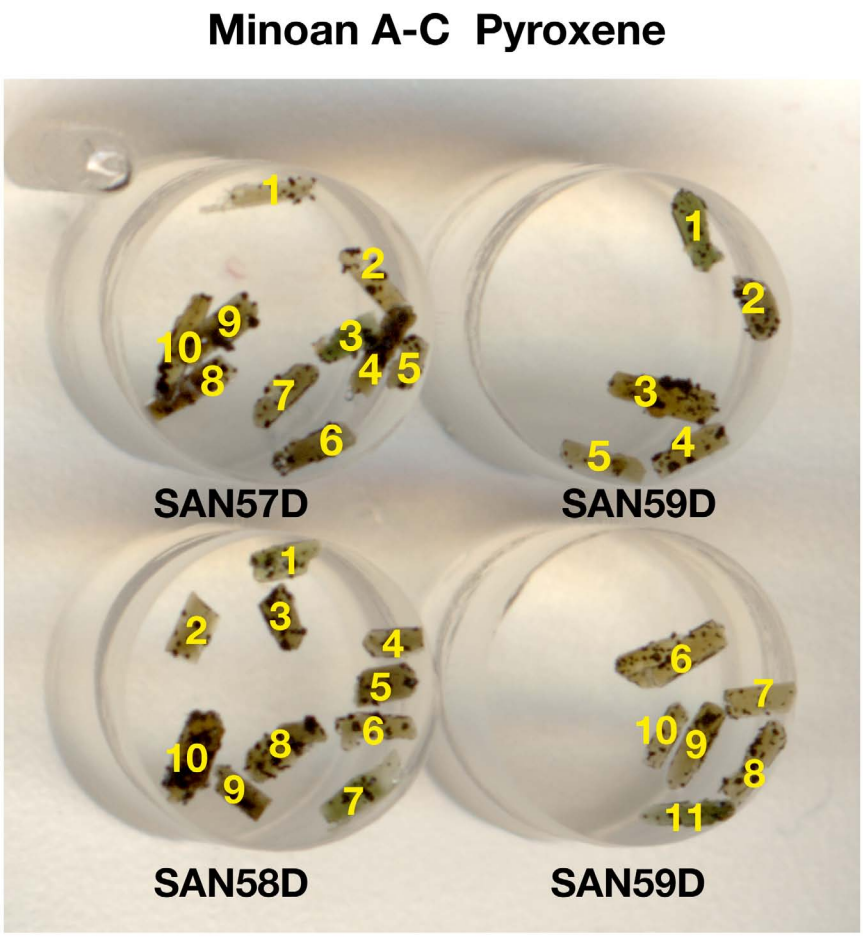


Fig. B.12. Sample SAN55D: Brown crystals are opx grains and green crystals are cpx grains.

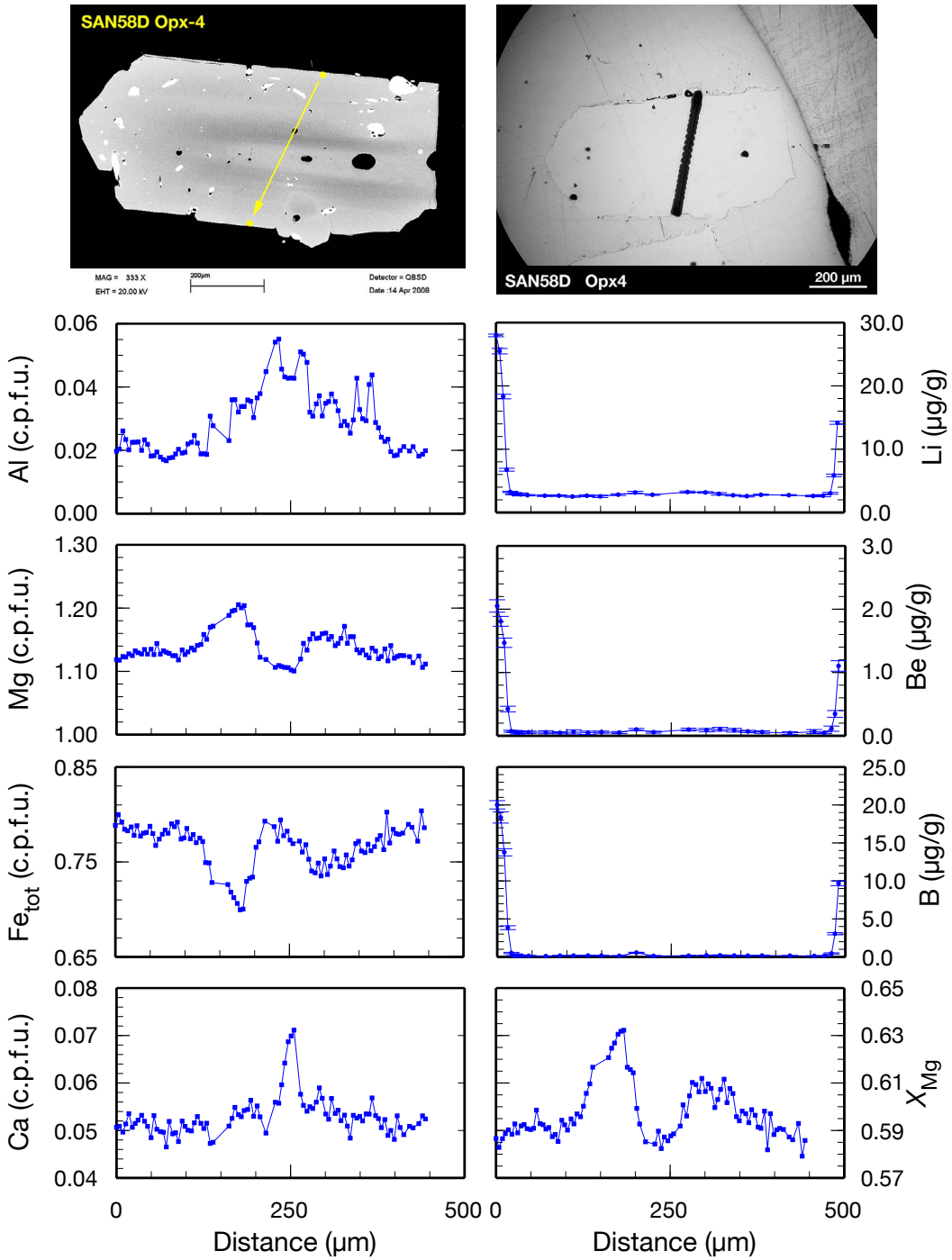


Fig. B.13. SAN58D: Opx-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

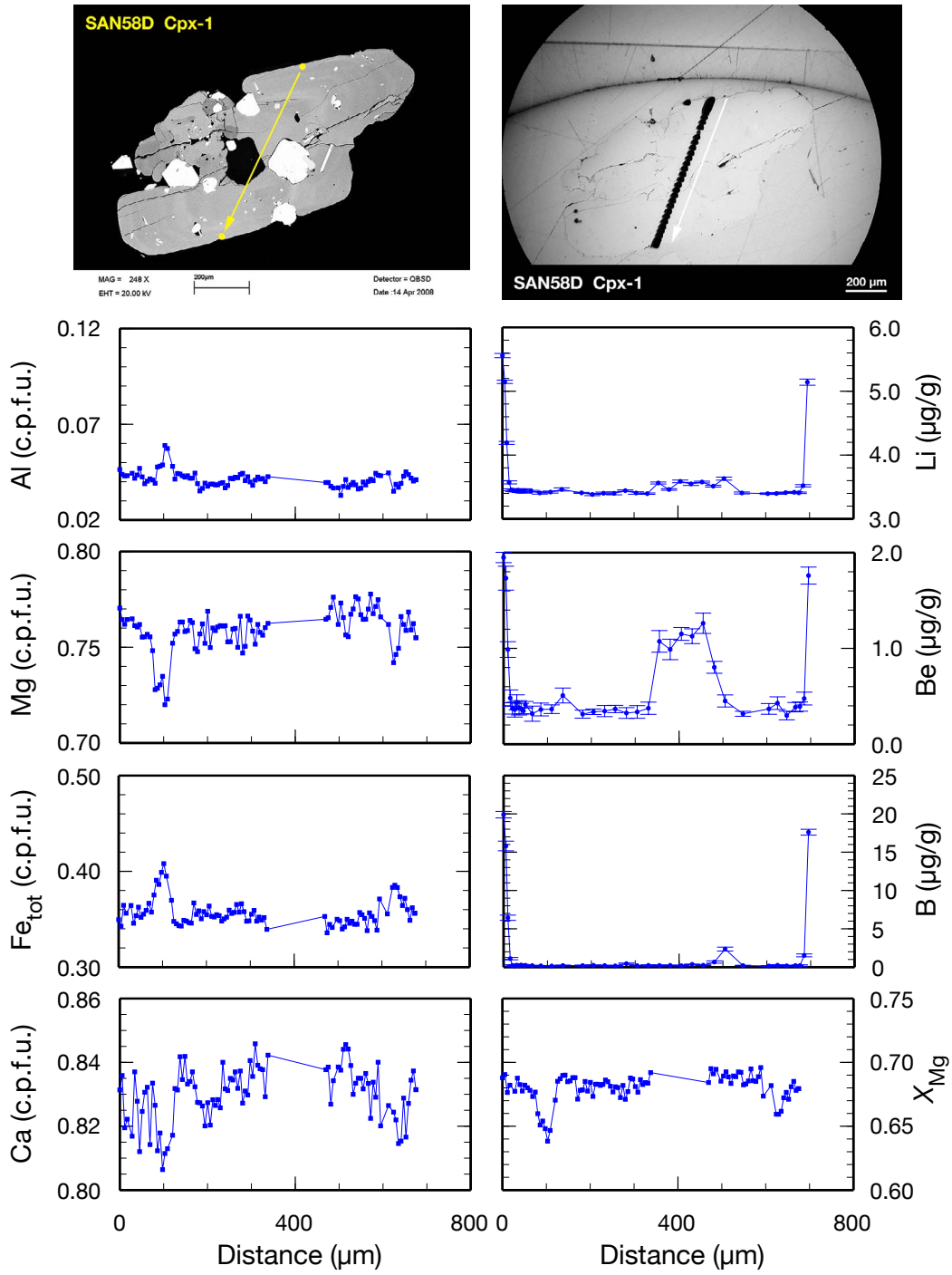


Fig. B.14. SAN58D: Cpx-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

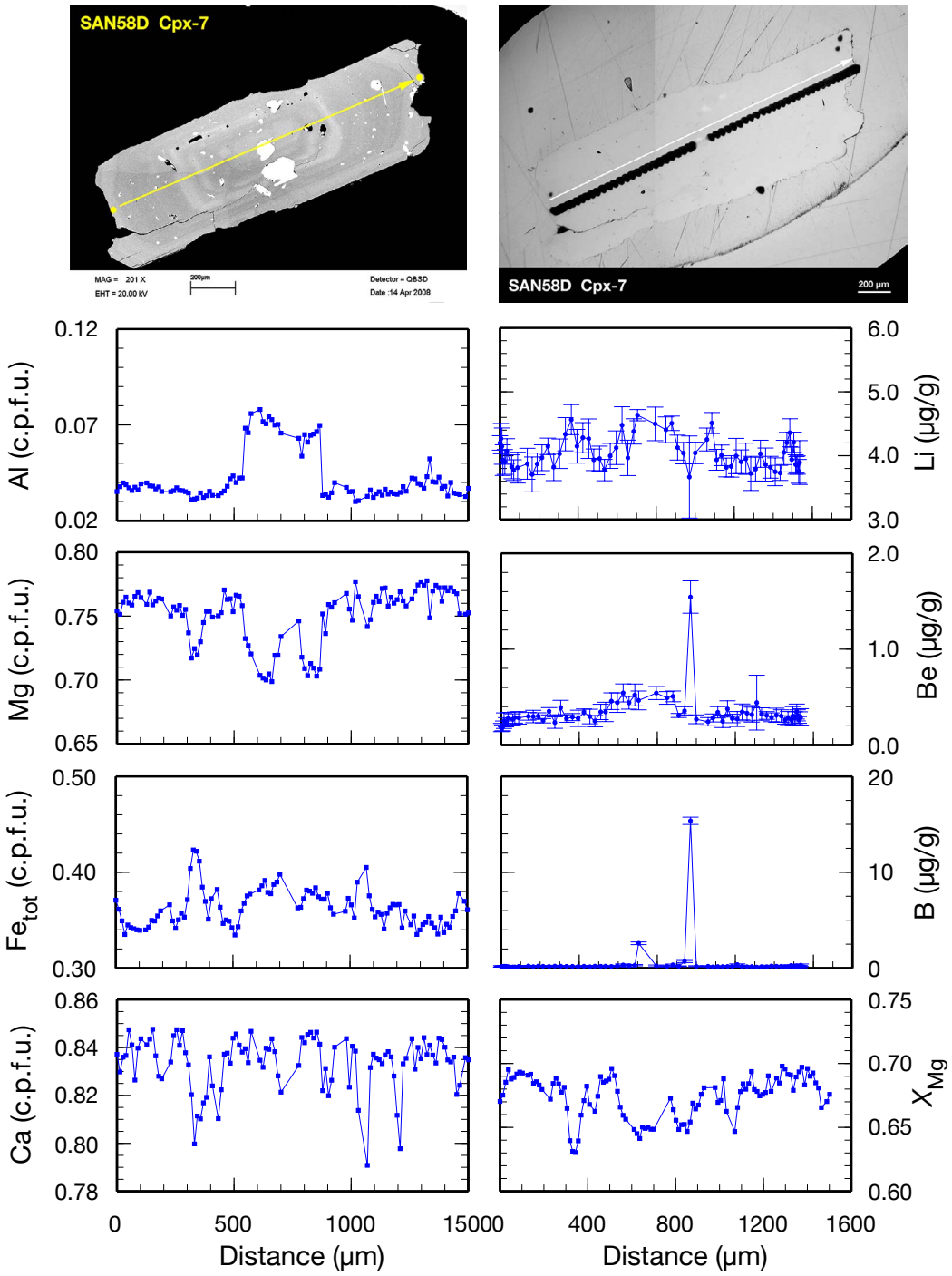


Fig. B.15. SAN58D: Cpx-7. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

B.0.15. Overview – SAN61-2

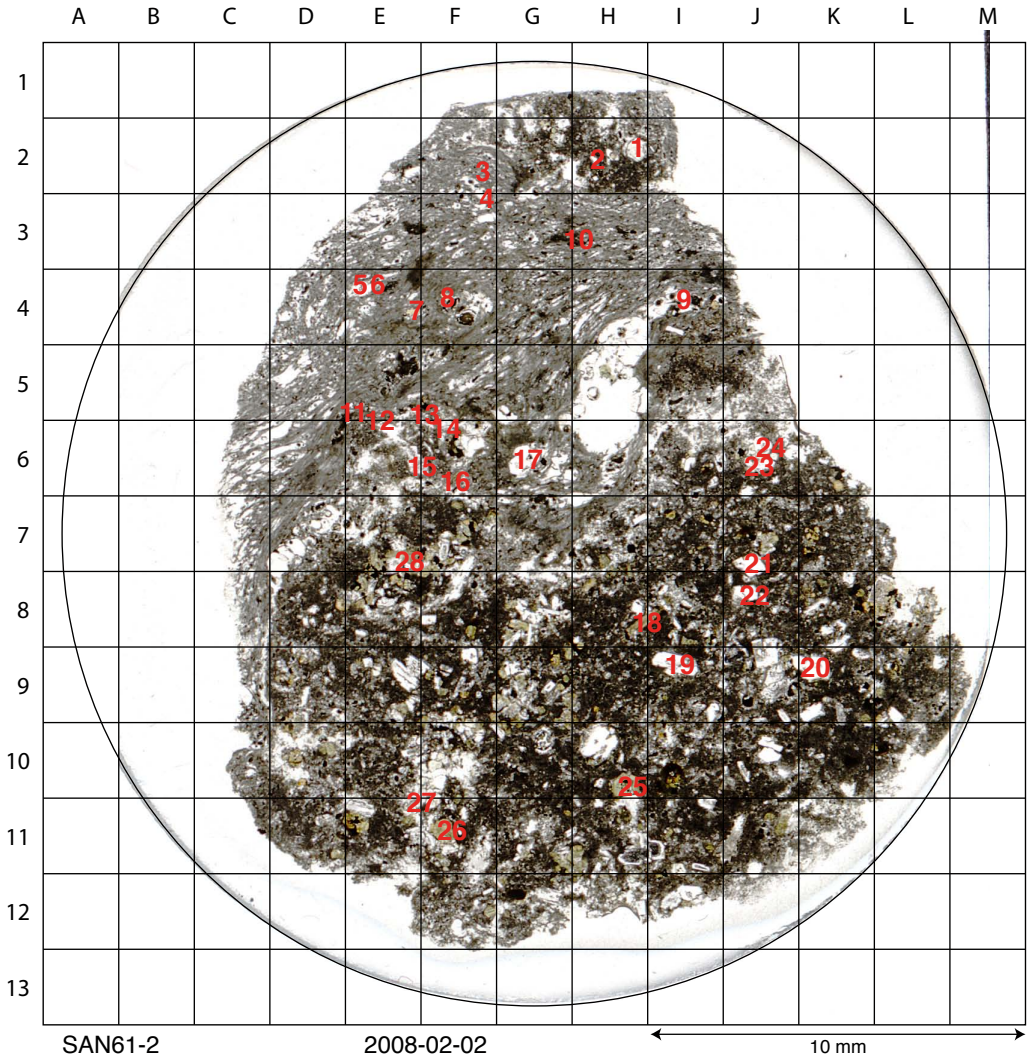


Fig. B.16. Thin section of sample SAN61-2.

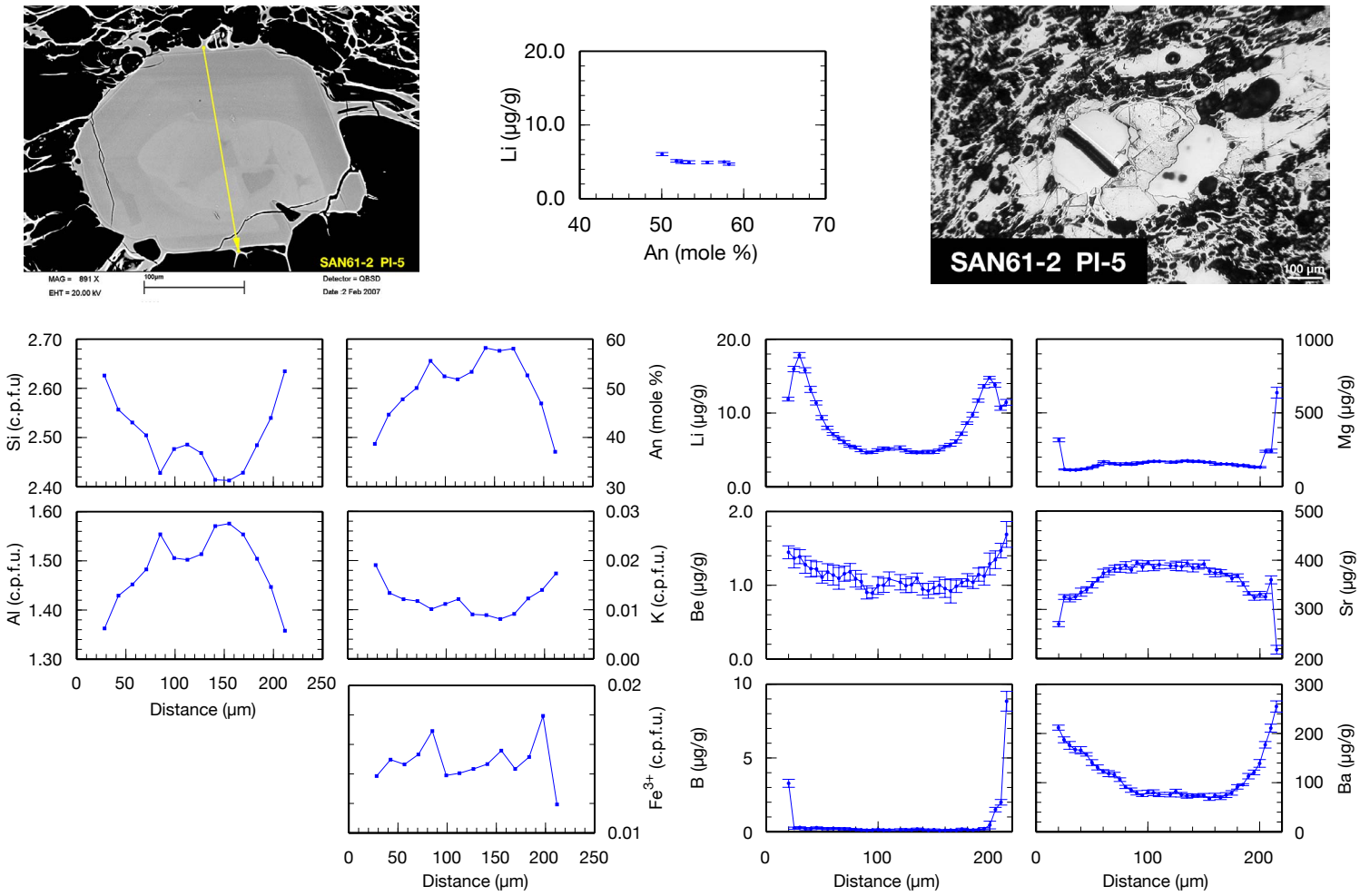


Fig. B.17. SAN61-2: Pl-5. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

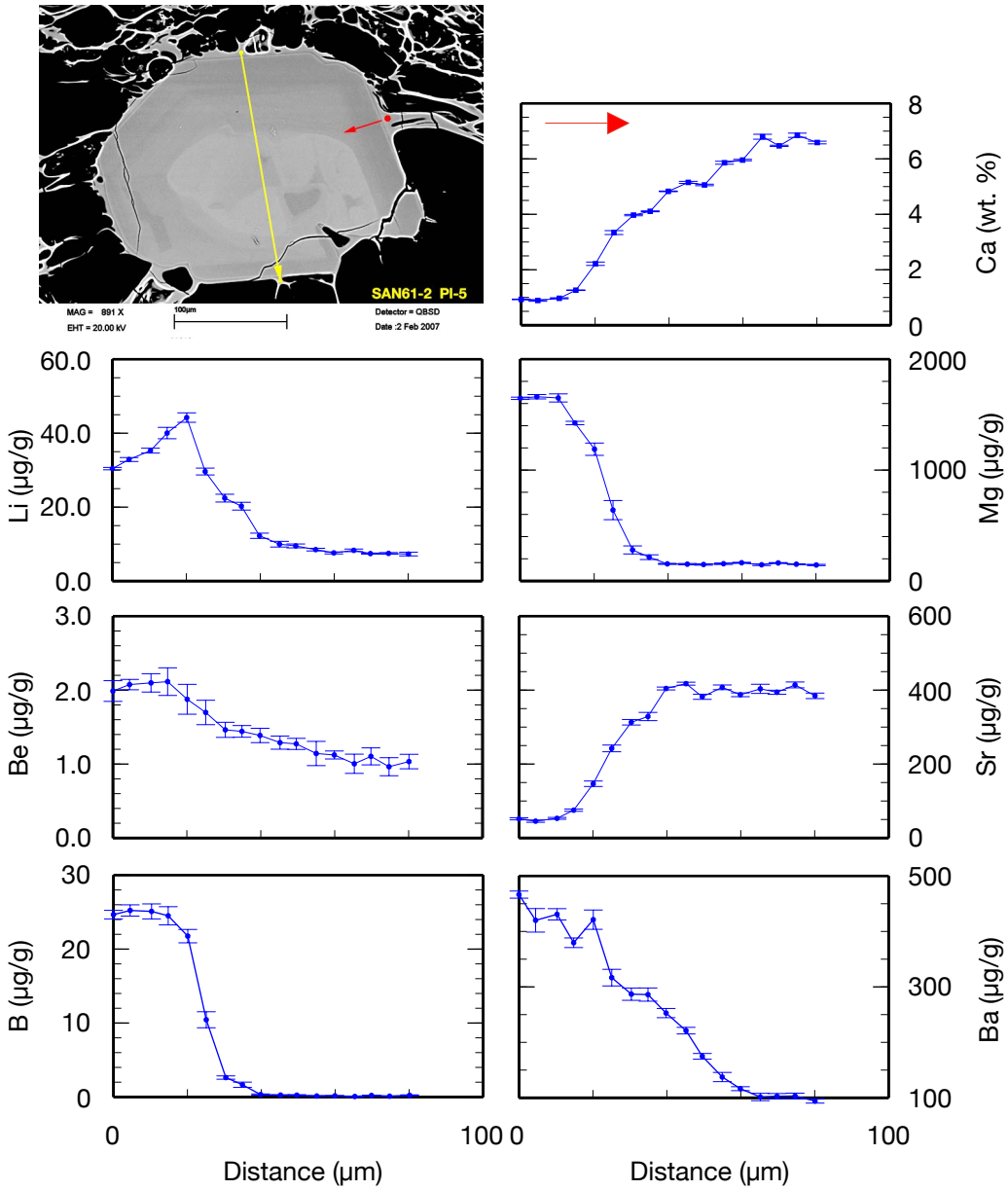


Fig. B.18. SAN61-2: Pl-5. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages into plagioclase.

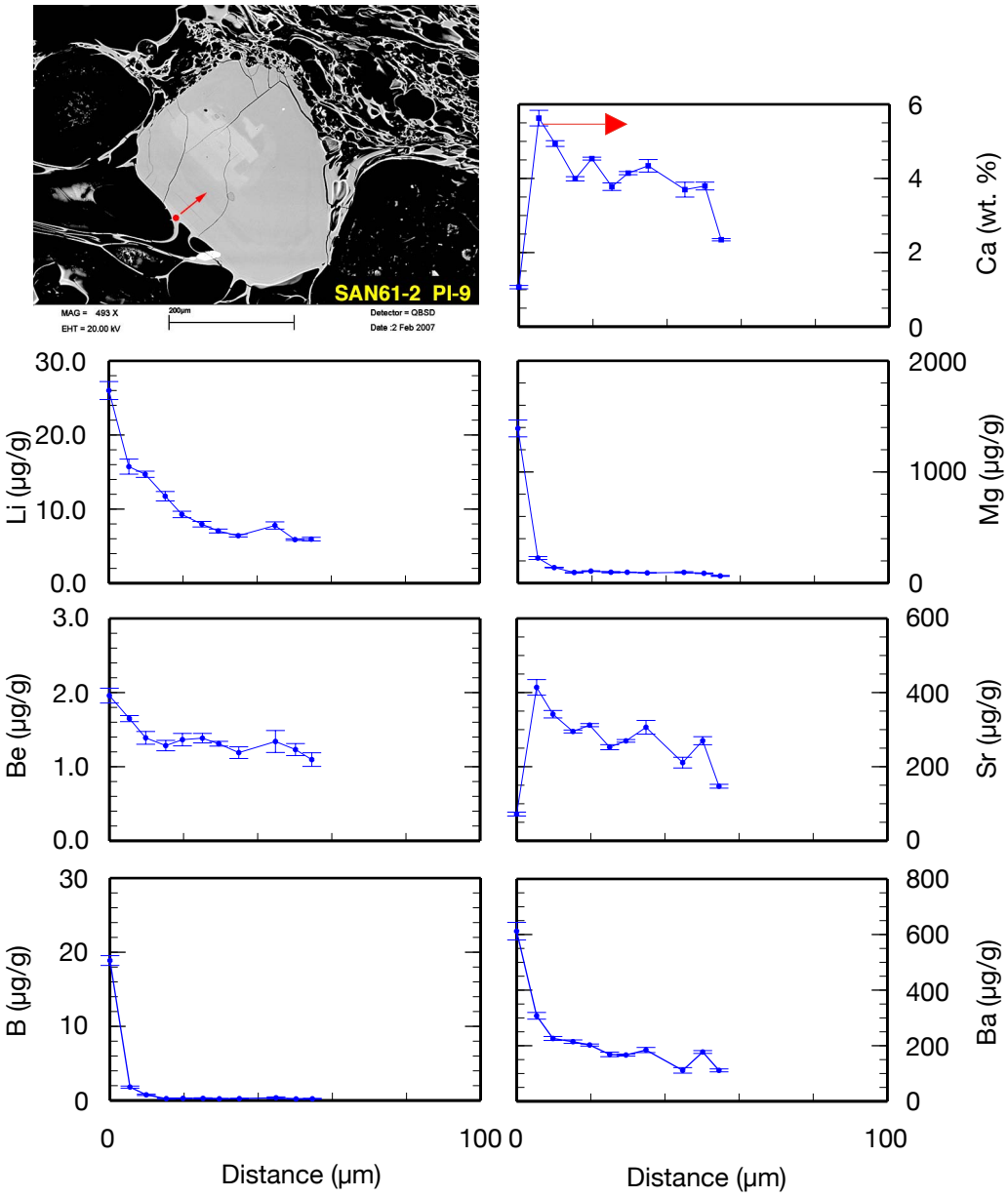


Fig. B.19. SAN61-2: Pl-9. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages into plagioclase.

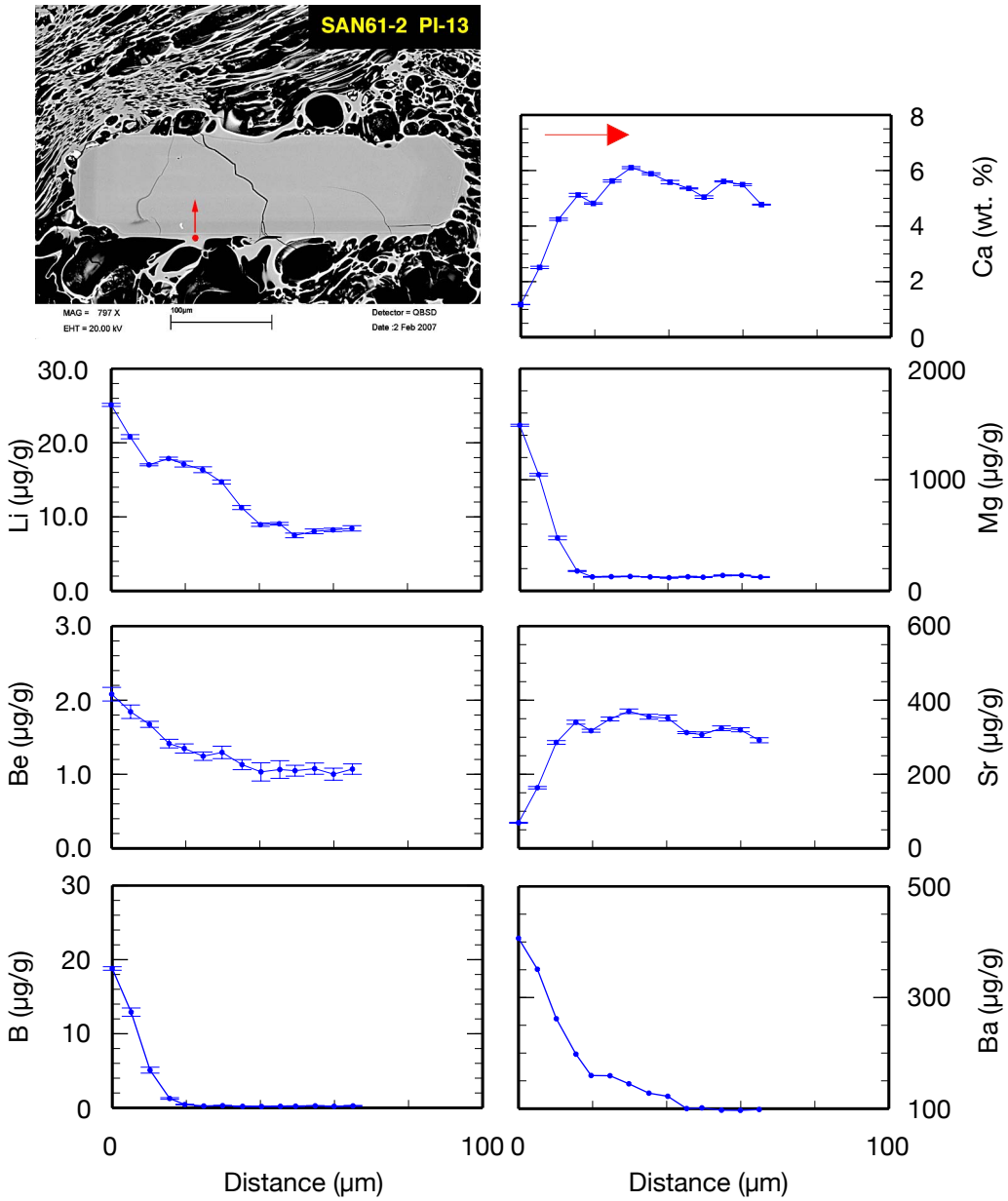


Fig. B.20. SAN61-2: Pl-13. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages into plagioclase.

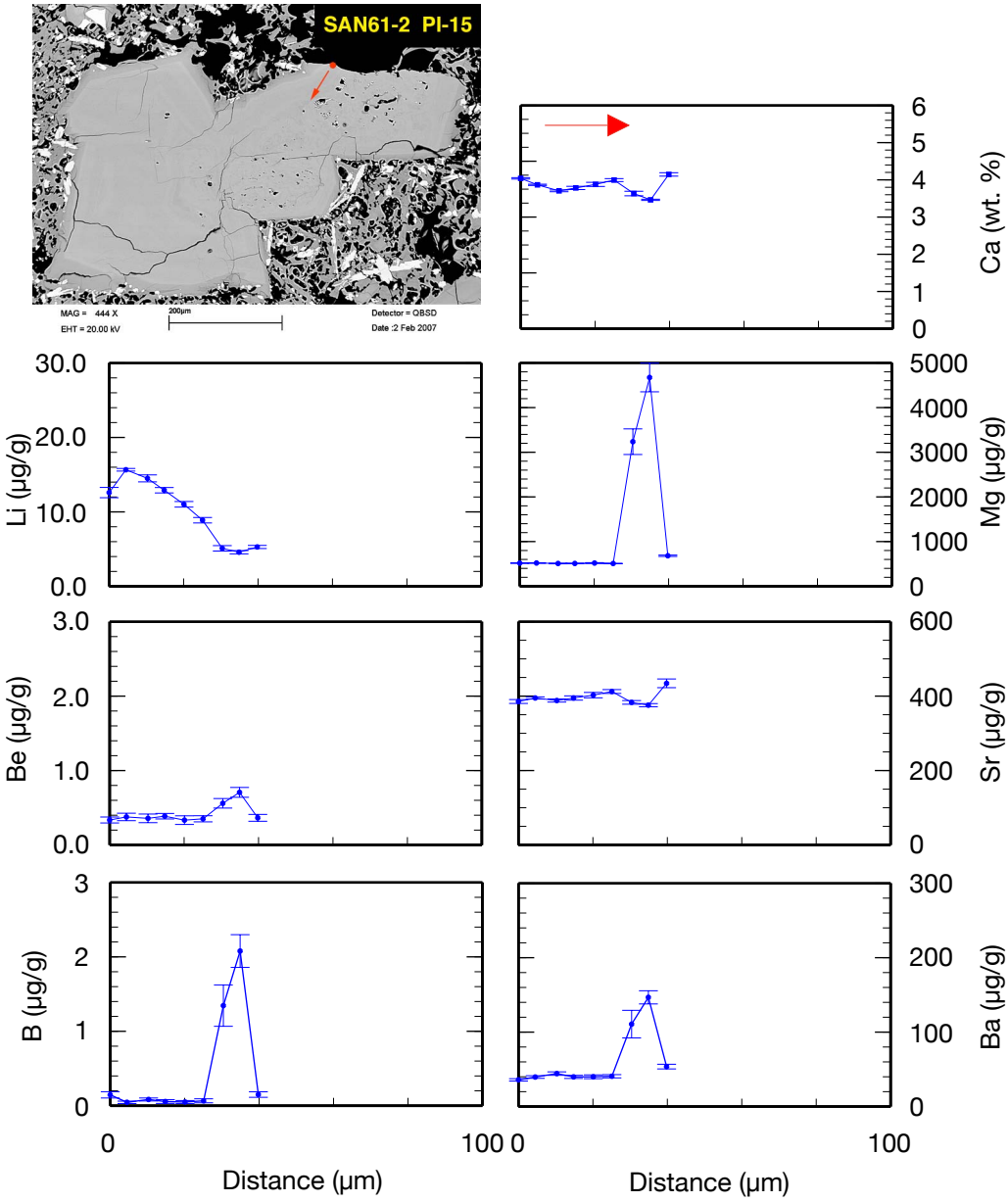


Fig. B.21. SAN61-2: Pl-15. A short SIMS profile was analyzed to detect or exclude diffusion of Li from a broken rim into plagioclase.

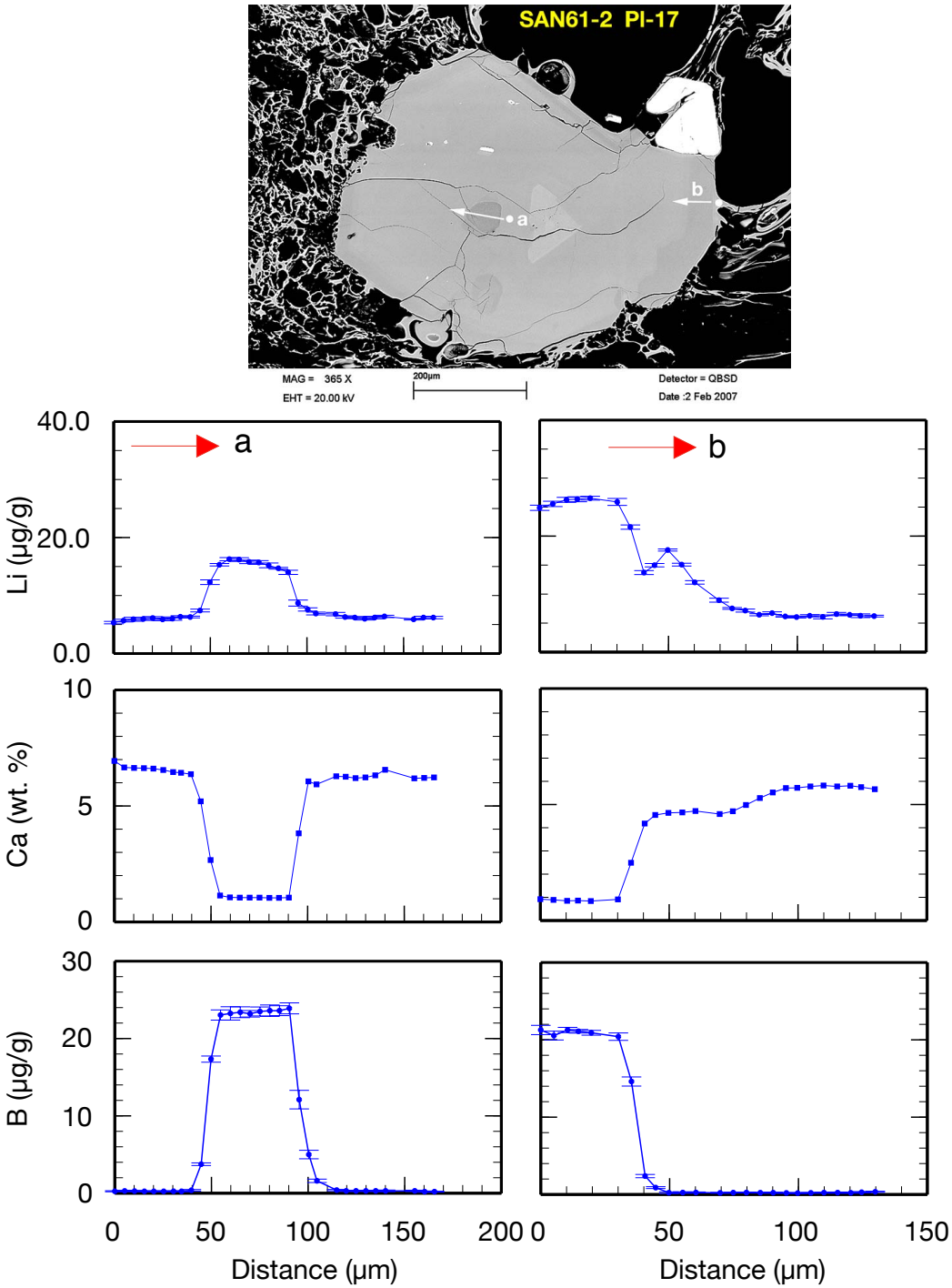


Fig. B.22. SAN61-2: Pl-17. A short SIMS profile was analyzed to detect or exclude diffusion of Li from a broken rim into plagioclase.

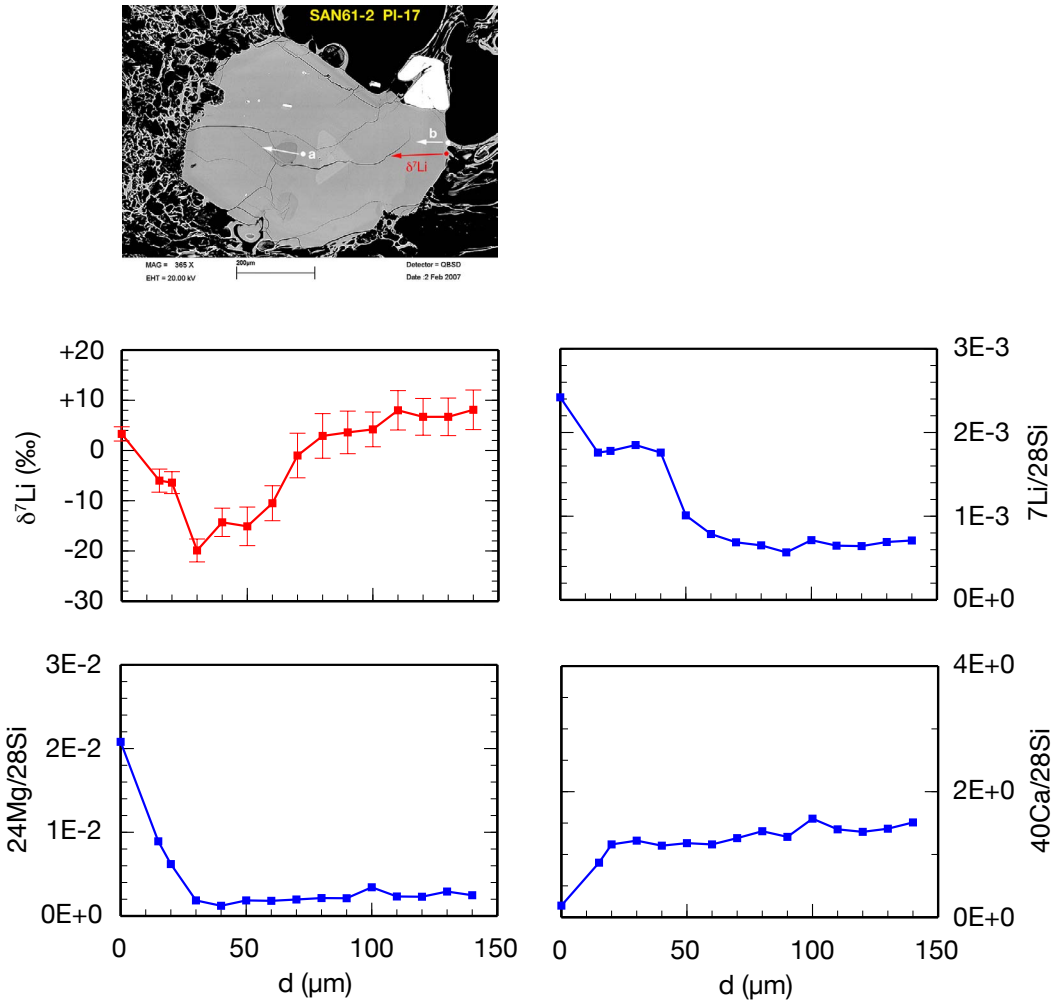


Fig. B.23. SAN61-2: Pl-17. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

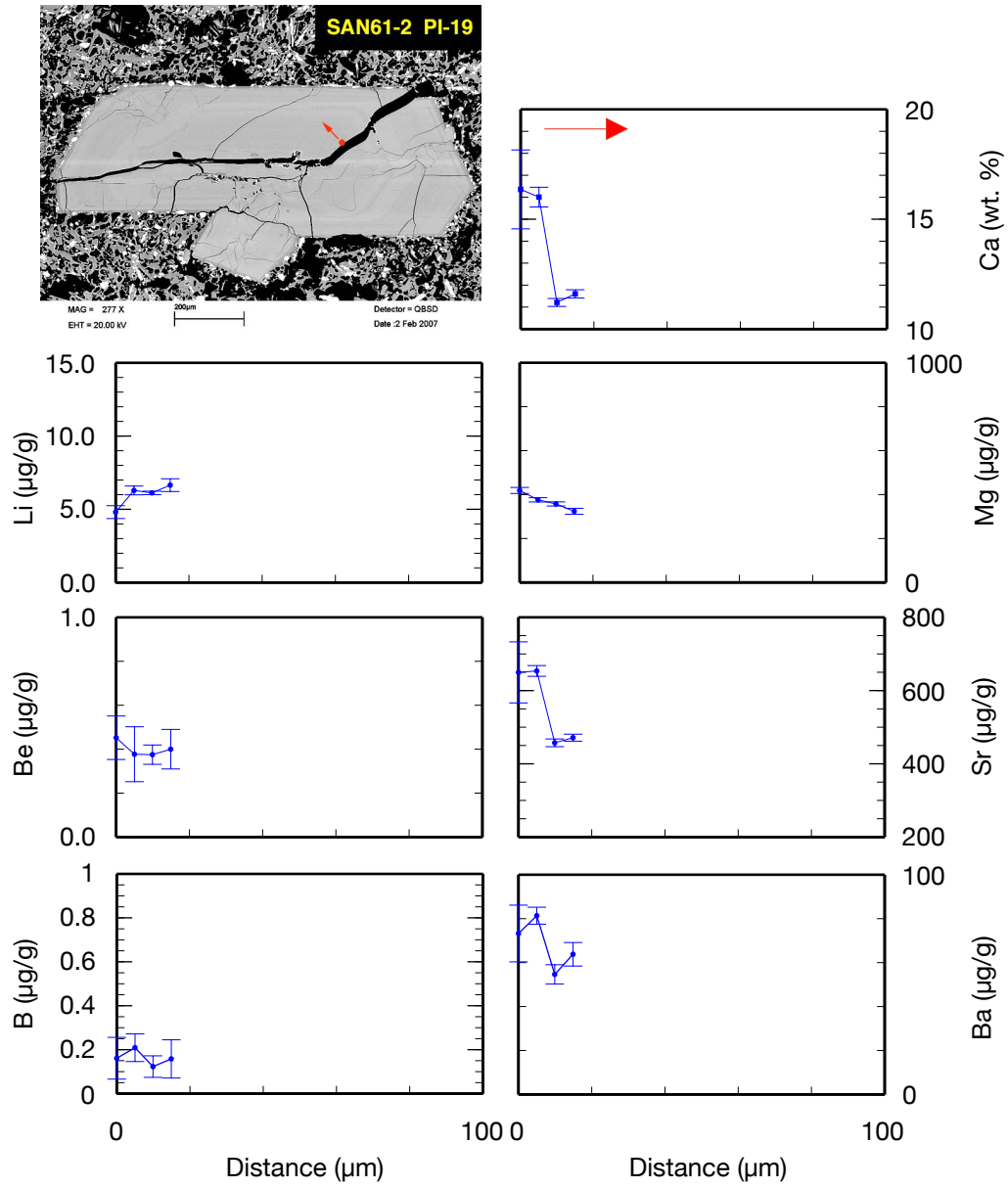


Fig. B.24. SAN61-2: Pl-19. A short SIMS profile was analyzed to detect or exclude diffusion of Li from a broken rim into plagioclase

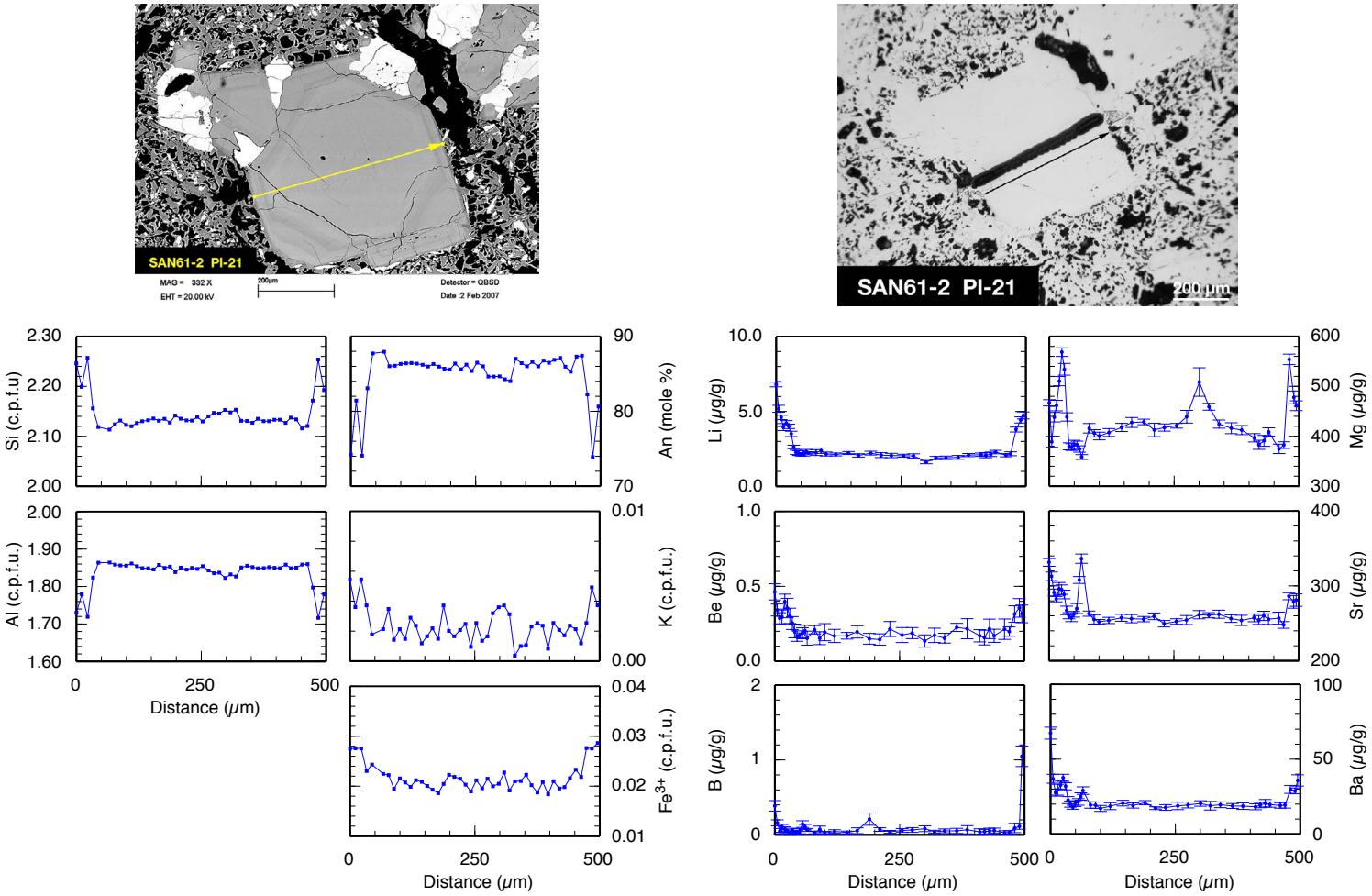


Fig. B.25. SAN61-2: Pl-21. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

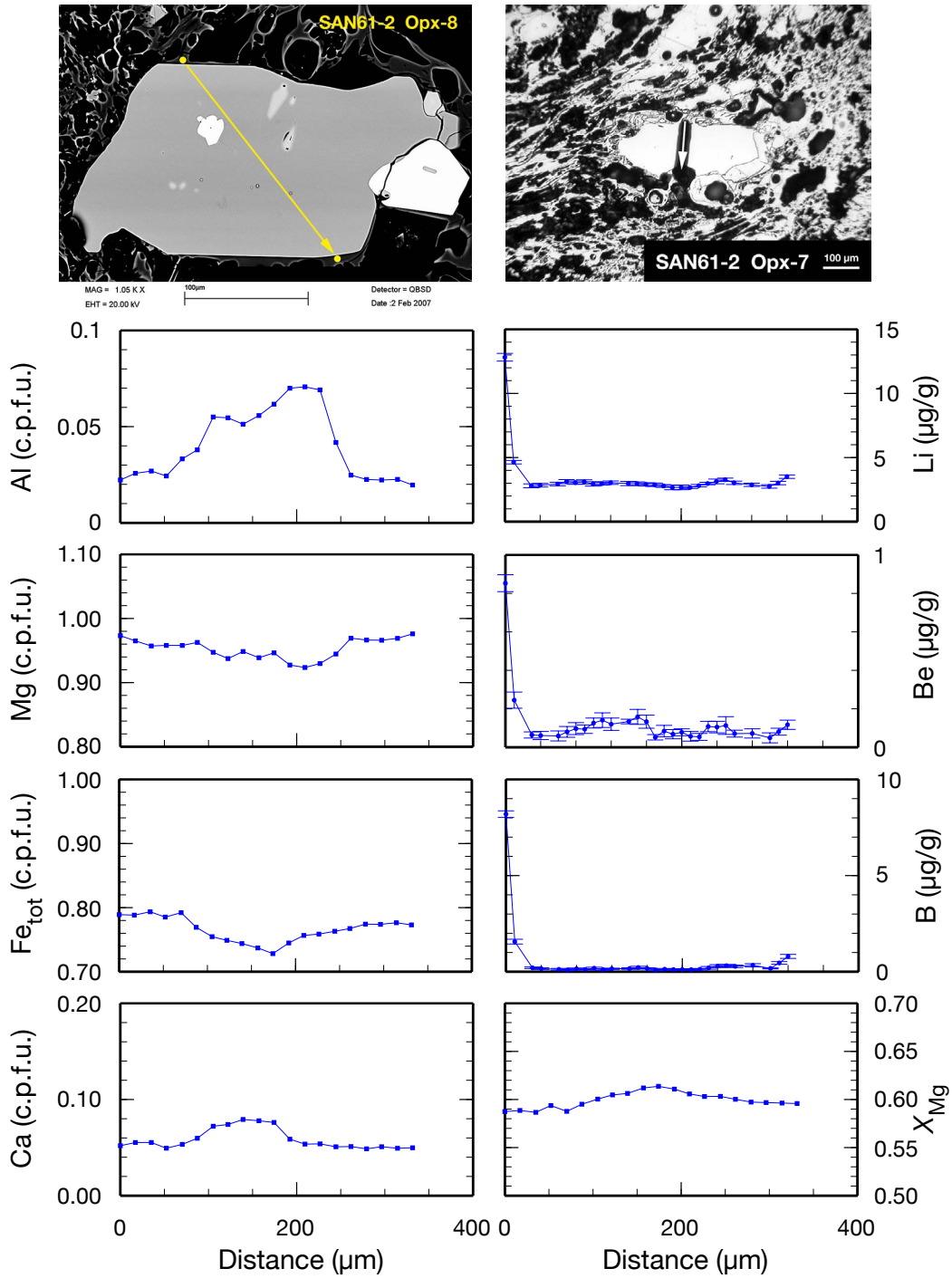


Fig. B.26. SAN61-2: Opx-7. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

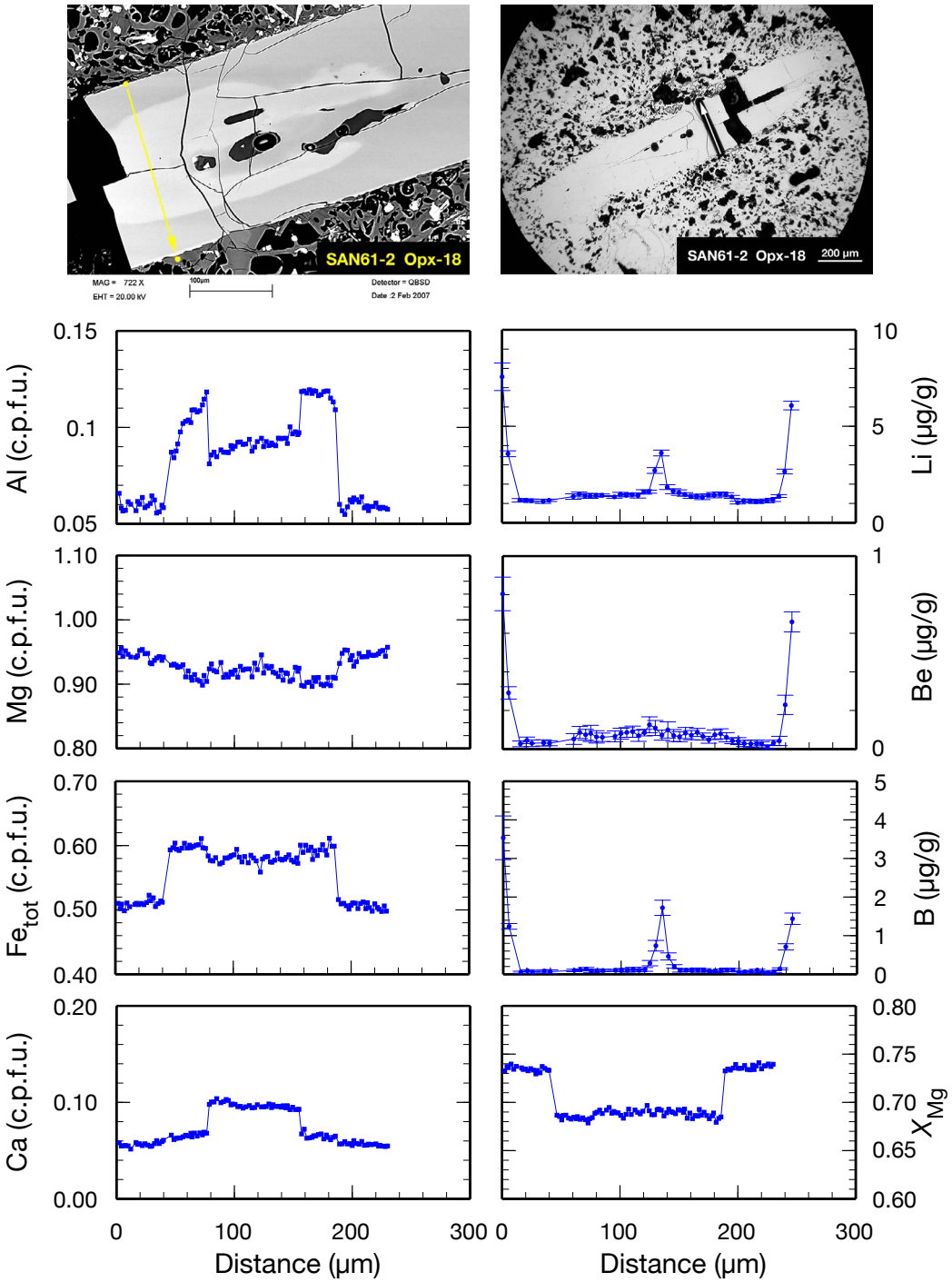


Fig. B.27. SAN61-2: Opx-18. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

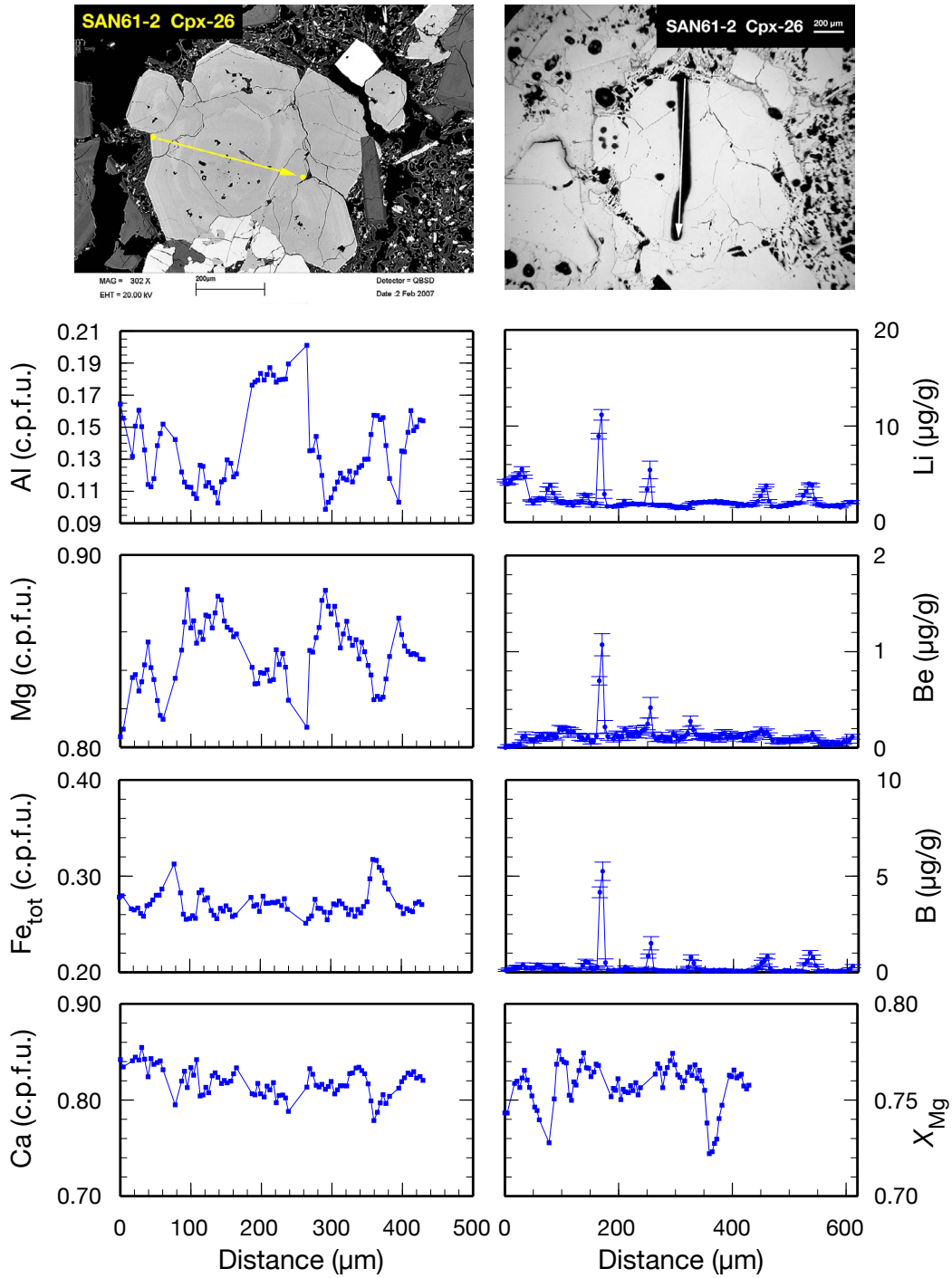


Fig. B.28. SAN61-2: Cpx-26. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

B.0.16. Overview – SAN61-1A

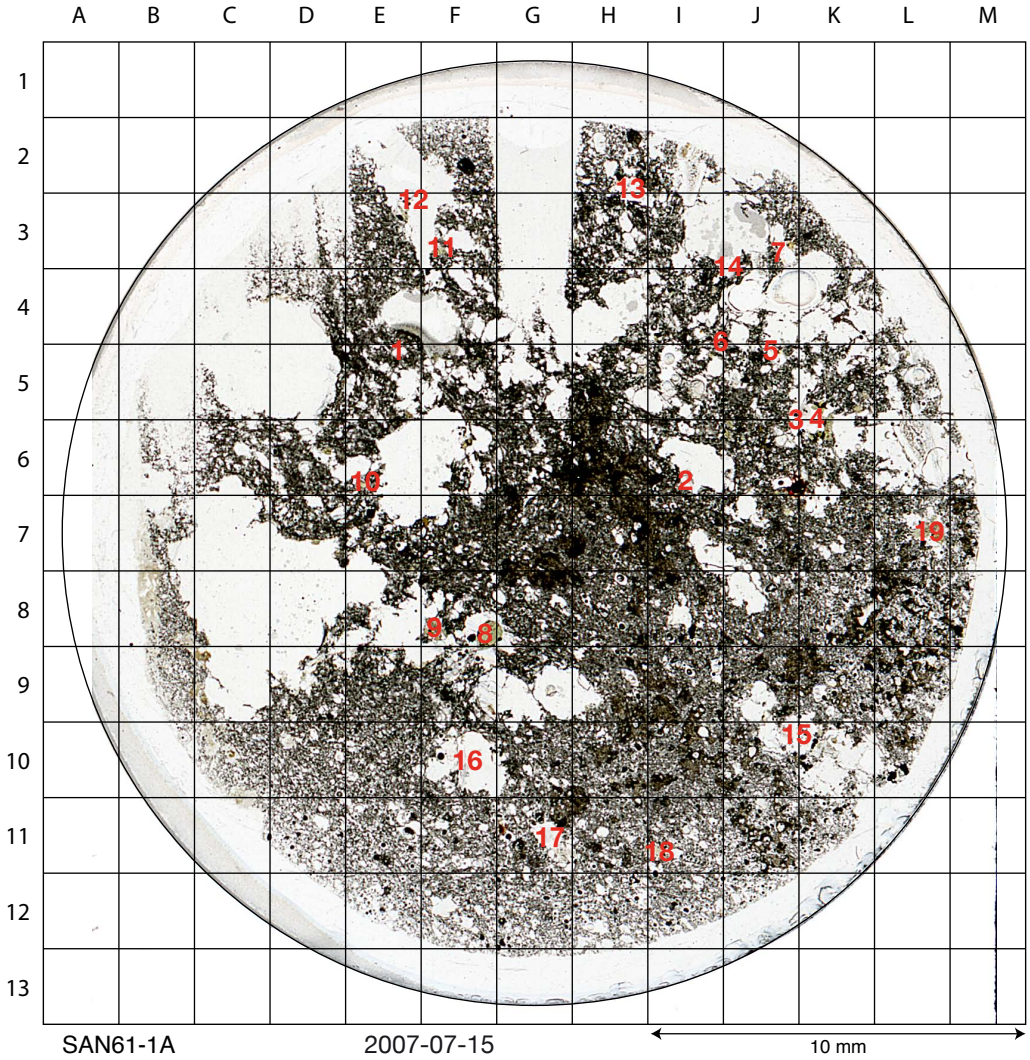


Fig. B.29. Thin section of sample SAN61-1A.

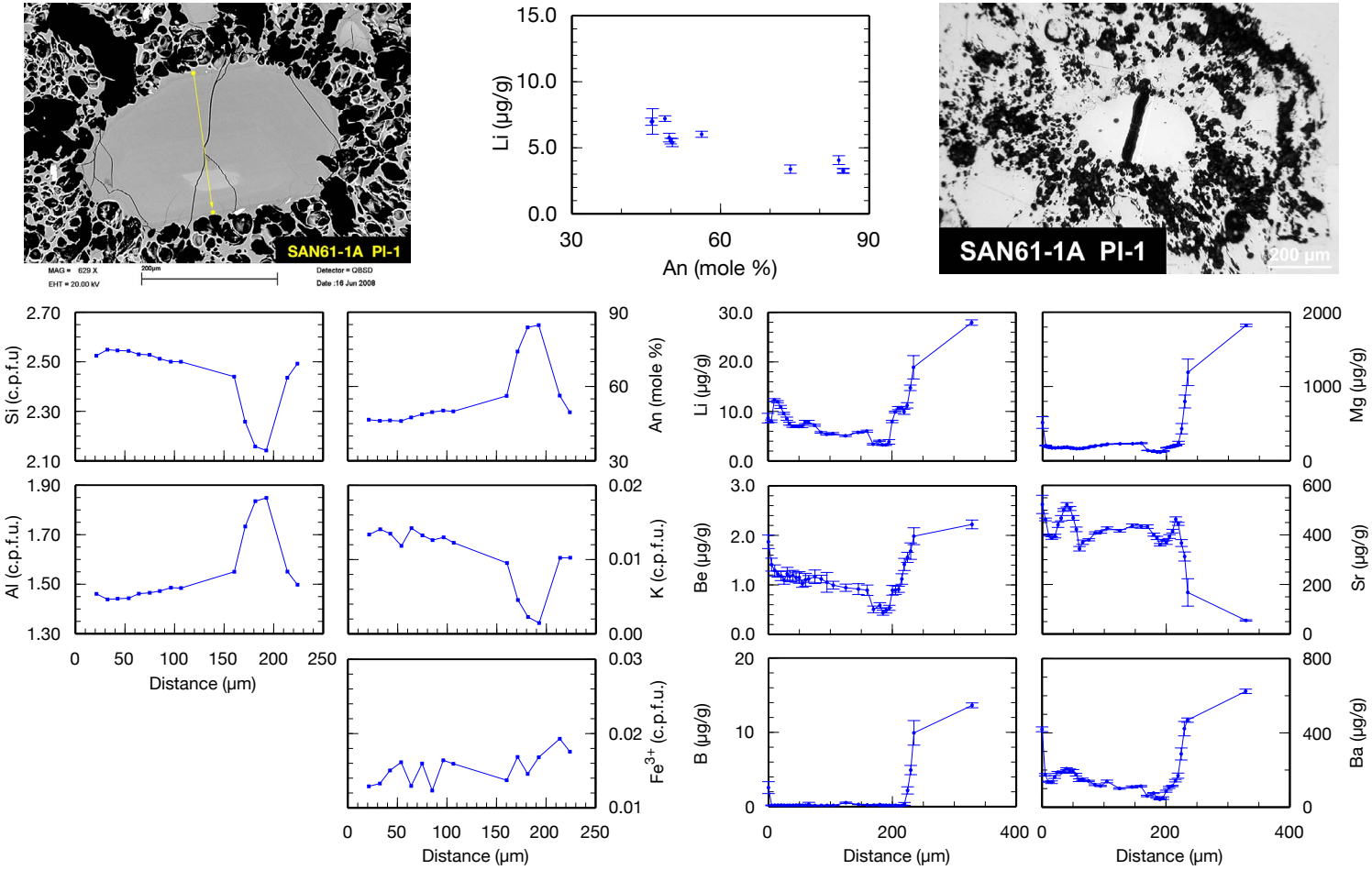


Fig. B.30. SAN61-1A: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

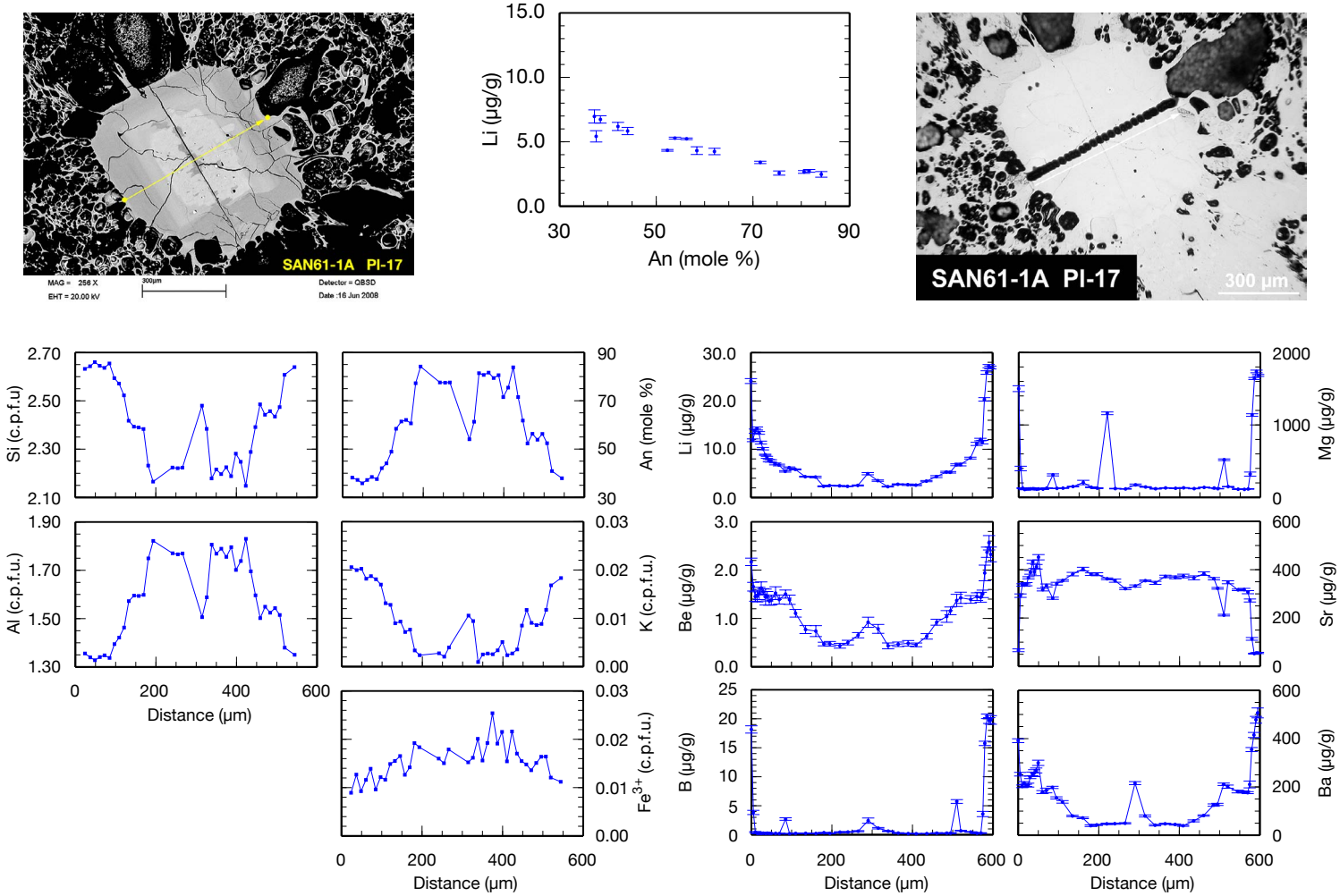


Fig. B.31. SAN61-1A: Pl-17. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

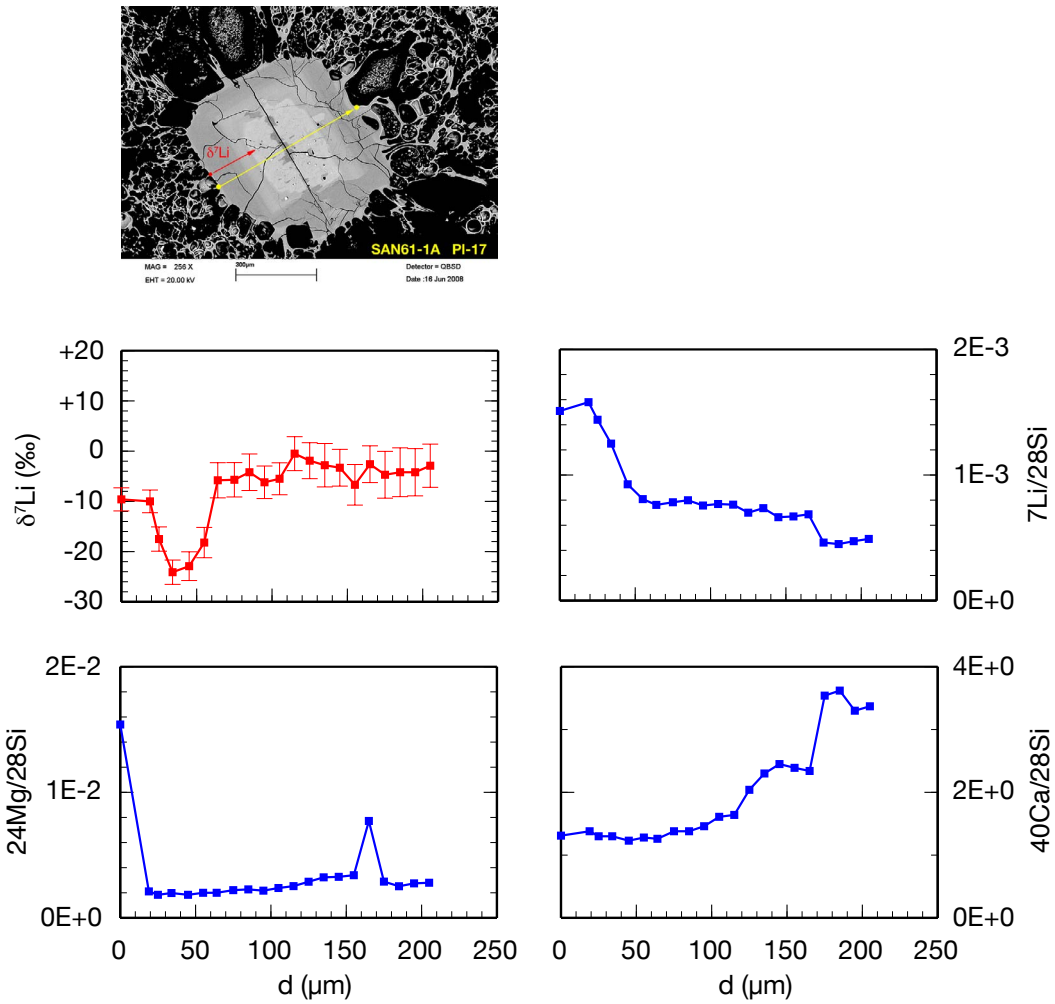


Fig. B.32. SAN61-1A: Pl-17. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

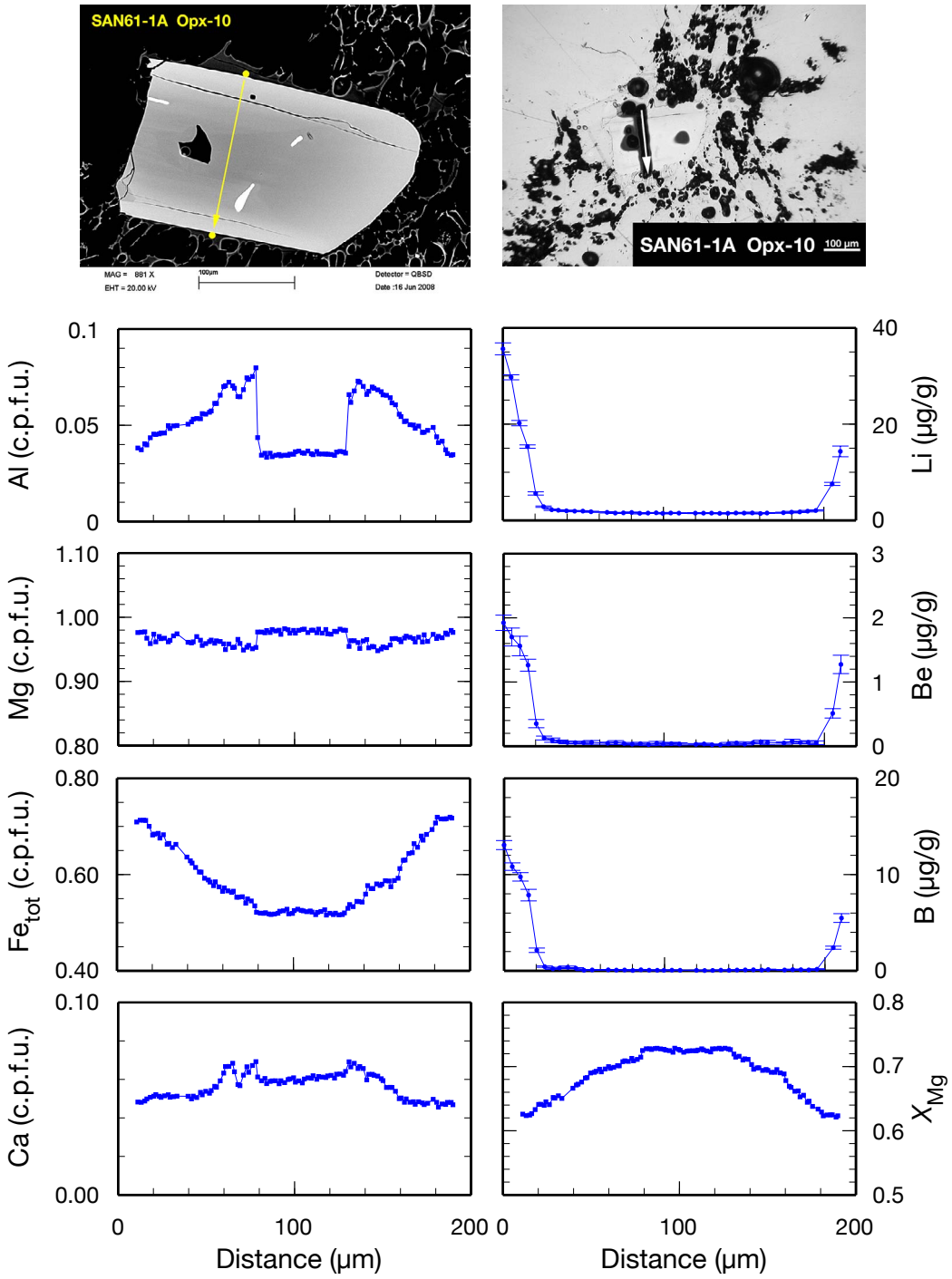


Fig. B.33. SAN61-1A: Opx-10. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

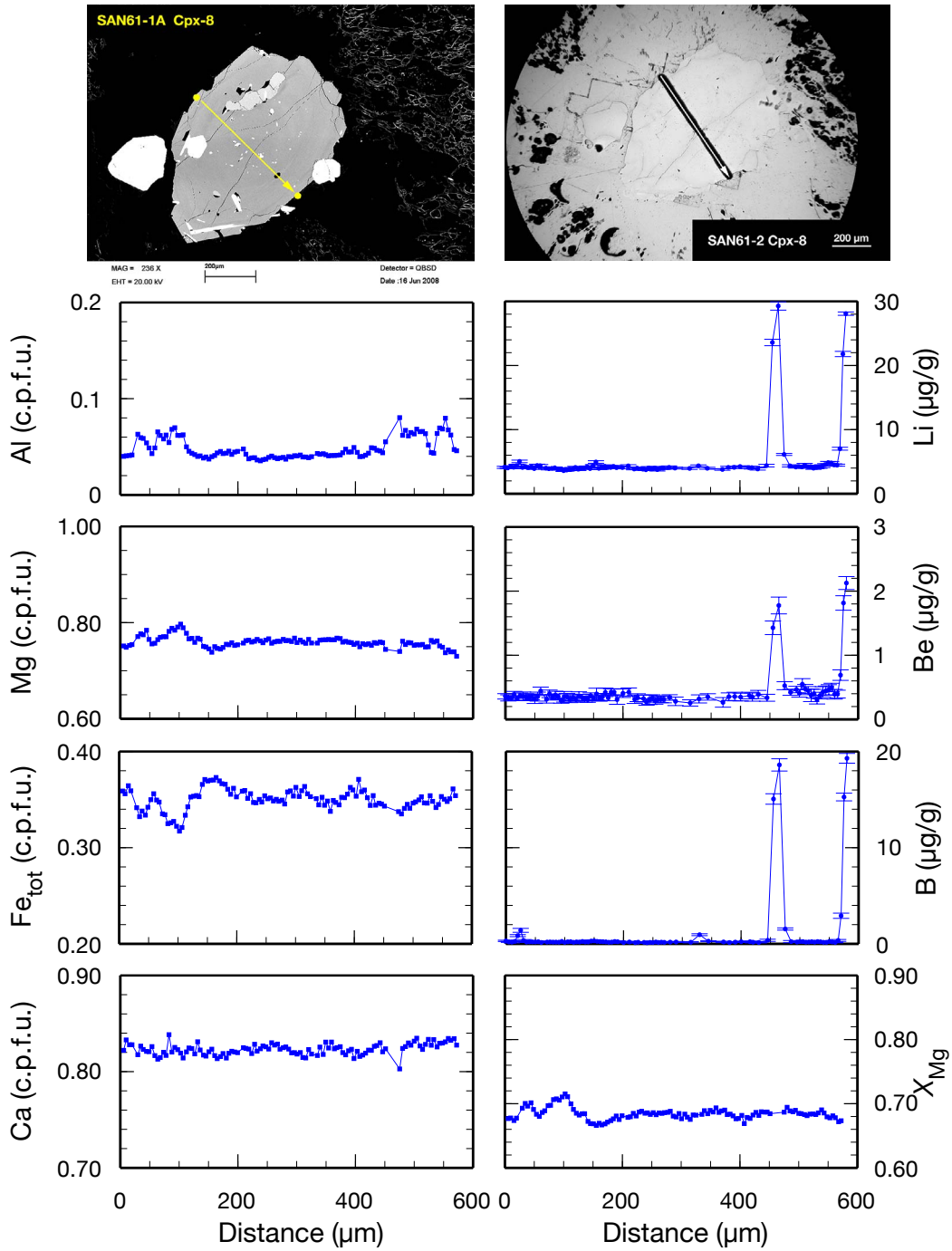


Fig. B.34. SAN61-1A: Cpx-8. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

C. Appendix – Minoan C

C.0.17. Overview – SAN59A

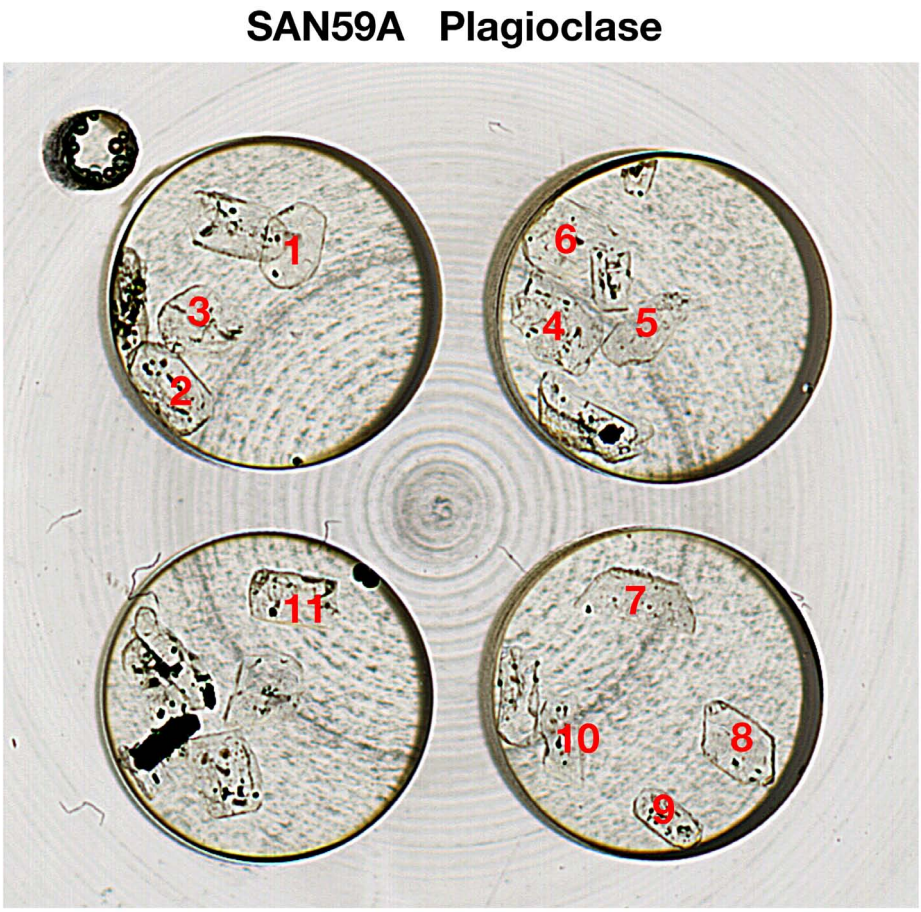


Fig. C.1. Sample SAN59A: Clear crystals are plagioclase grains.

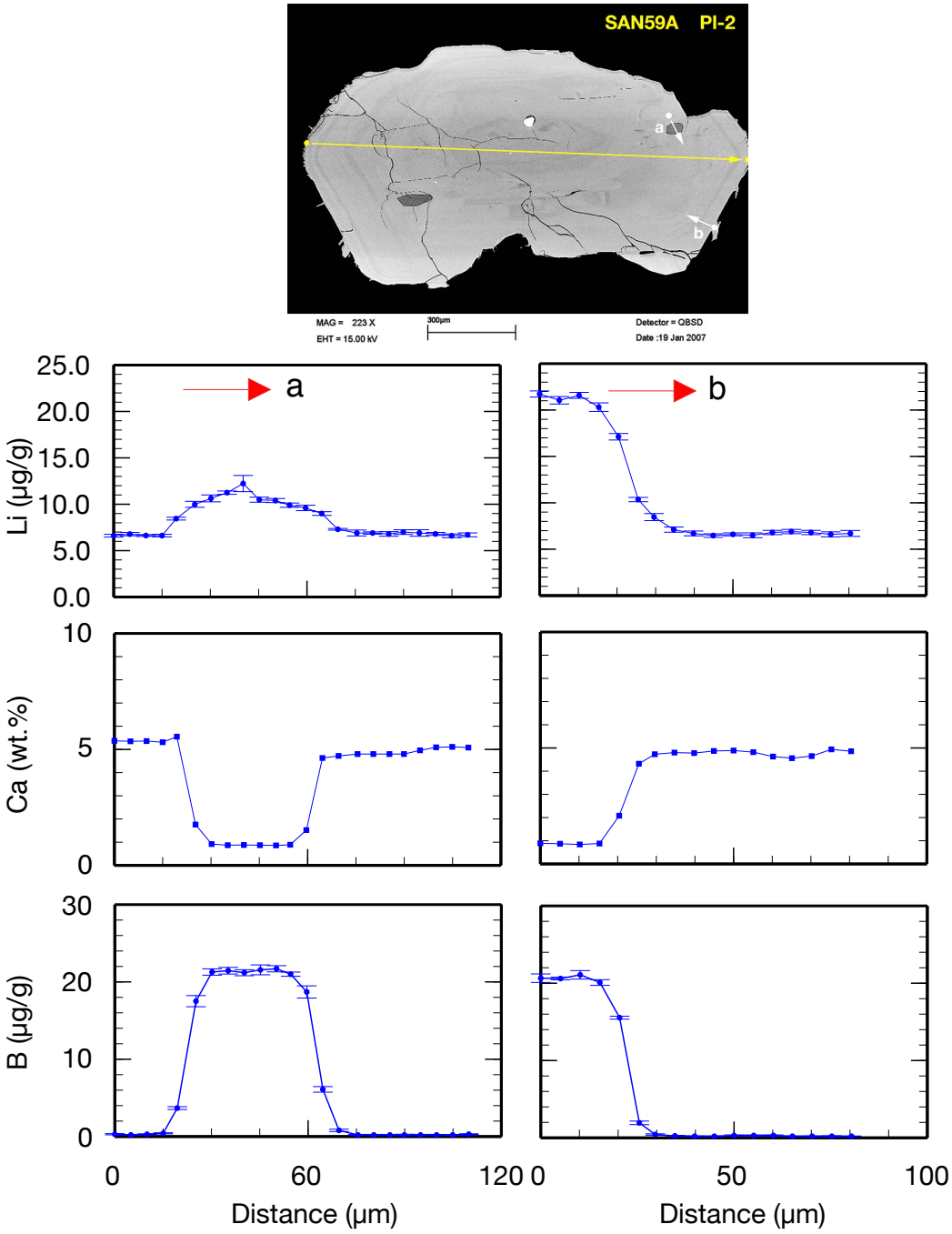


Fig. C.2. SAN59A: Pl-2. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

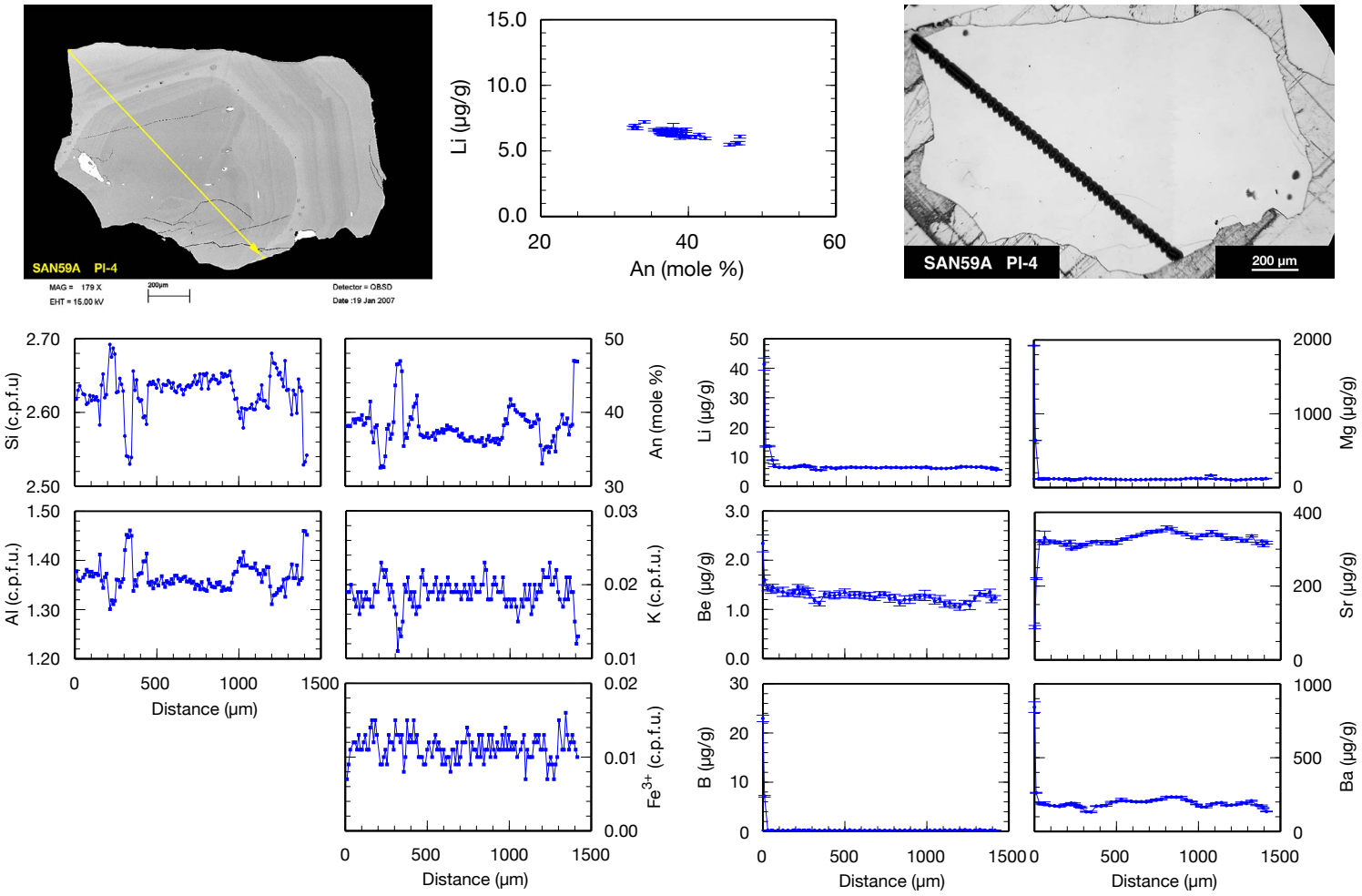


Fig. C.3. SAN59A: Pl-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

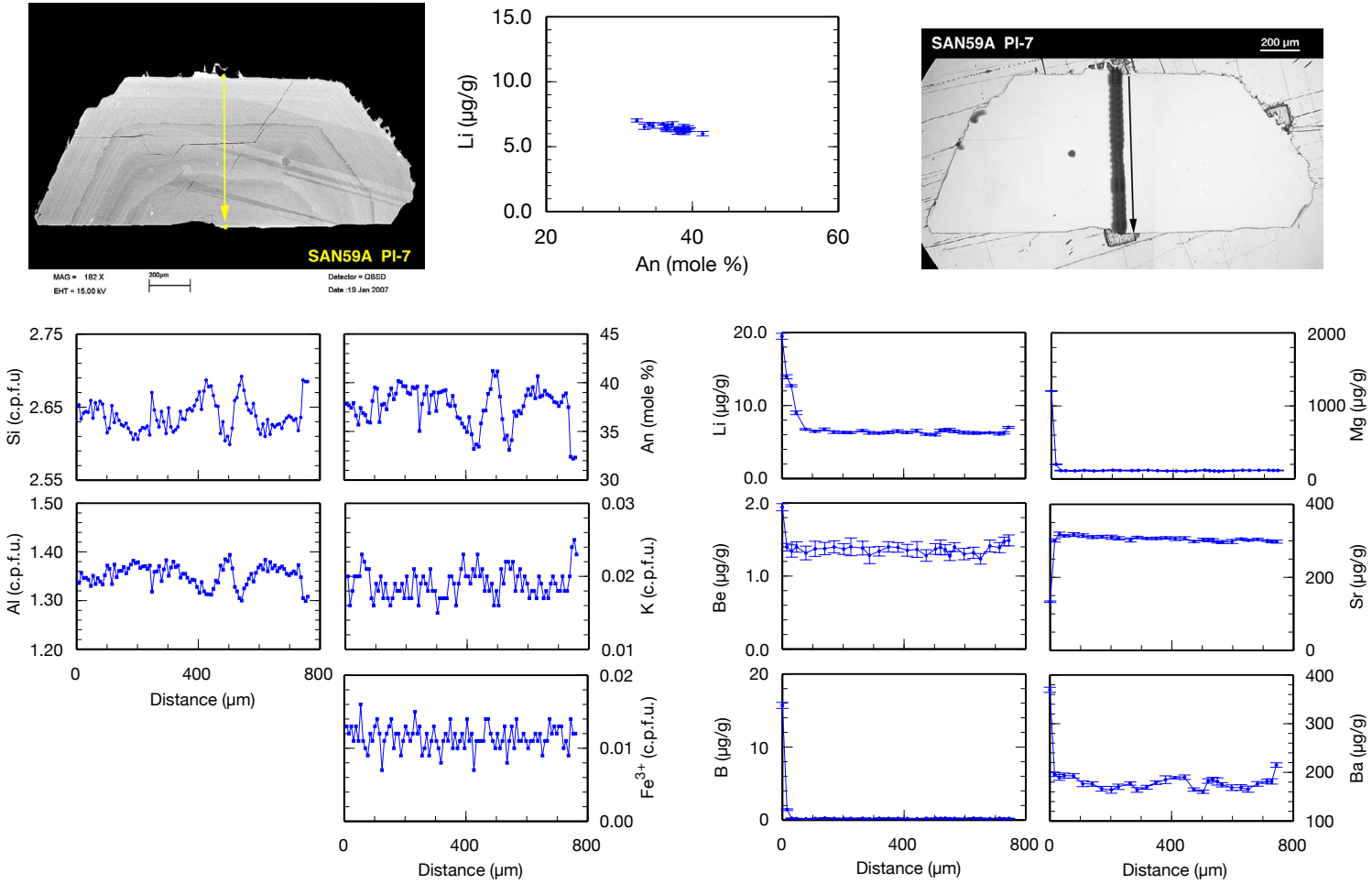


Fig. C.4. SAN59A: Pl-7. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

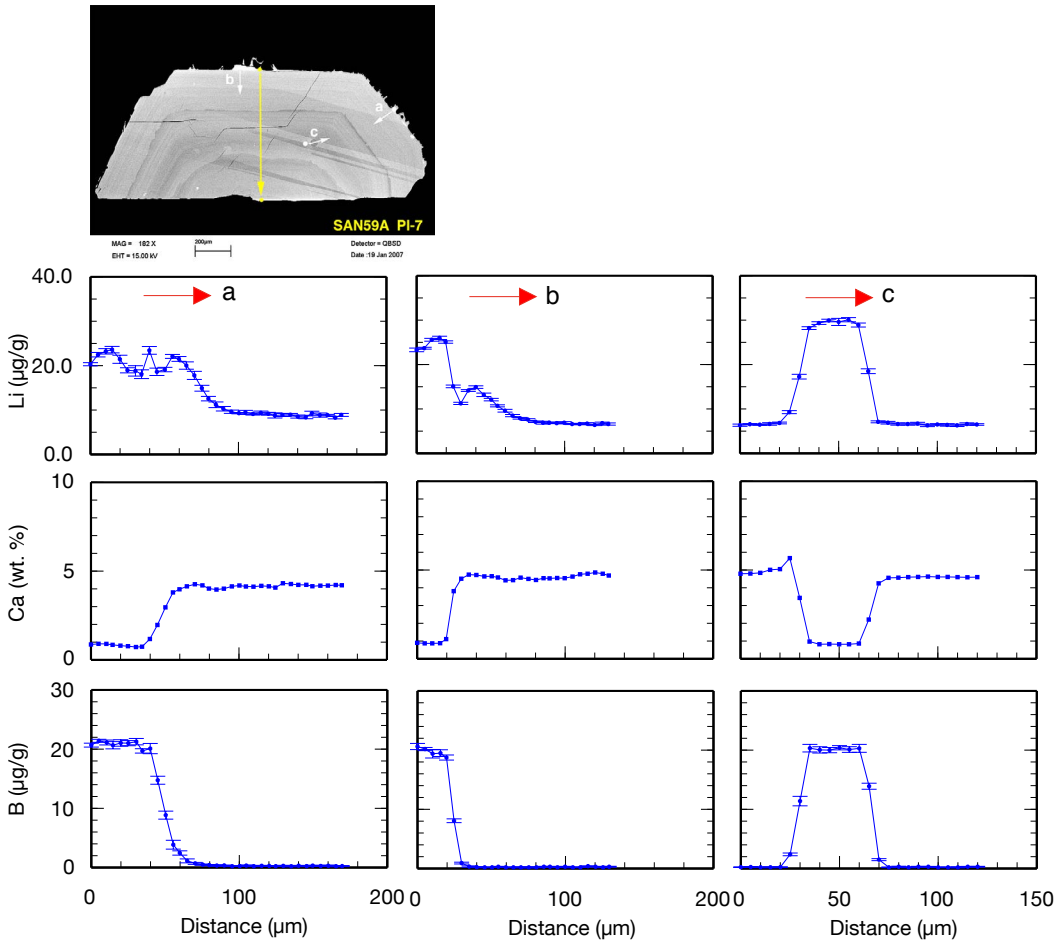


Fig. C.5. SAN59A: Pl-7. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

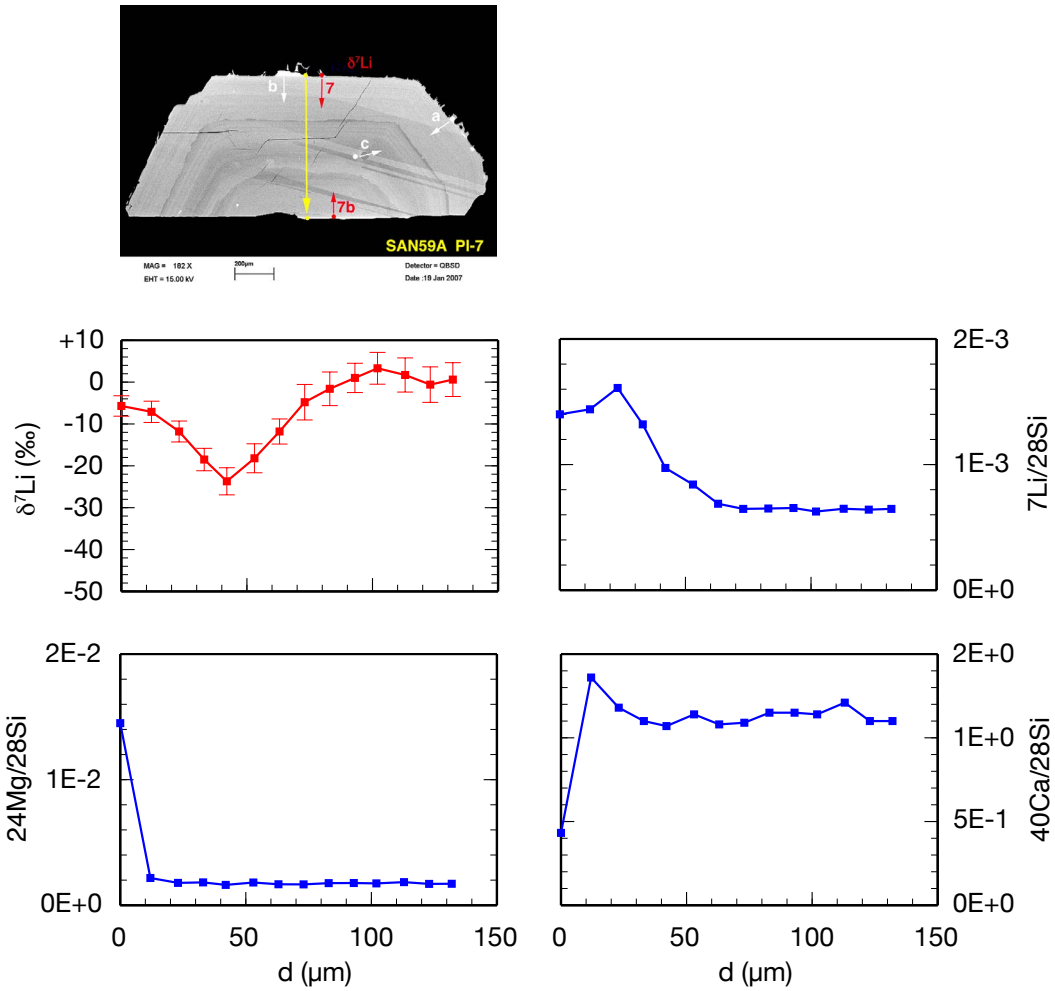


Fig. C.6. SAN59A: Pl-7. Short δ^7Li SIMS profile. The red arrows mark the δ^7Li profiles; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

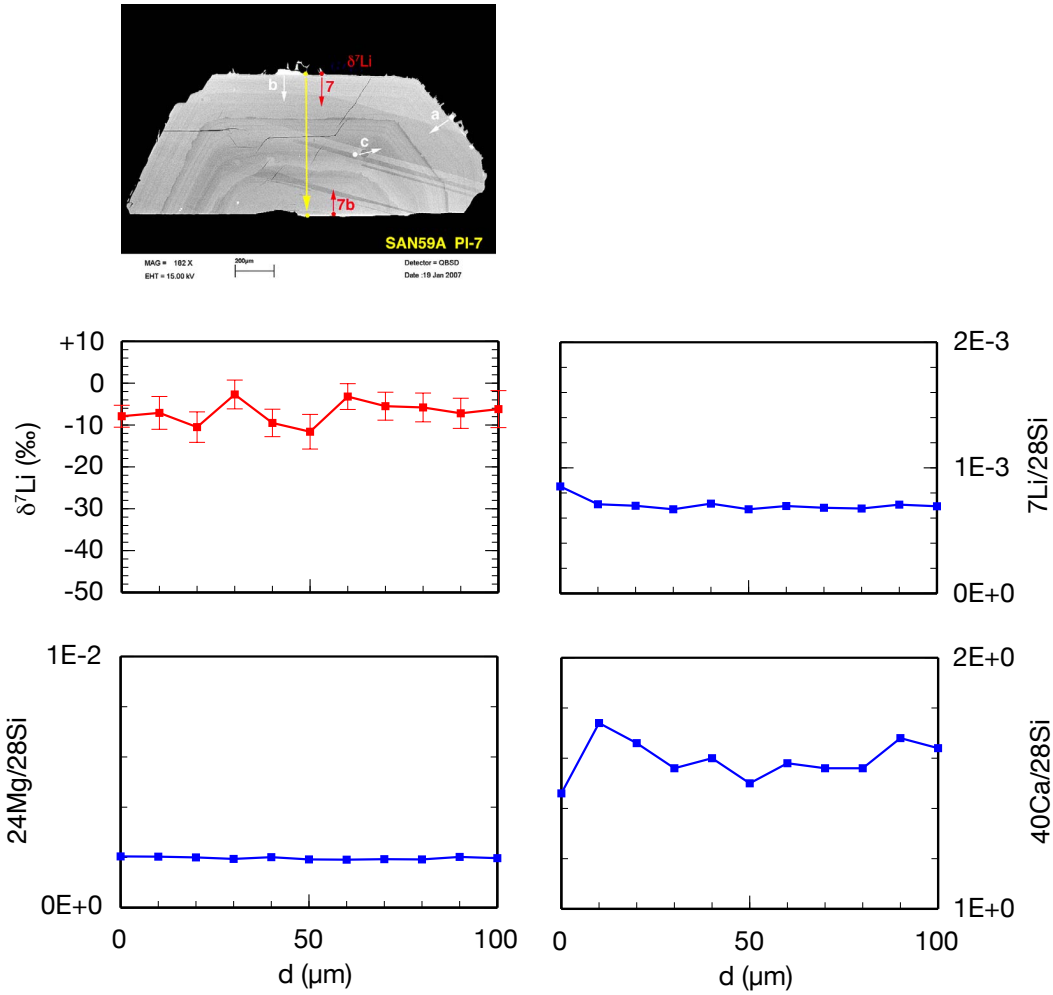


Fig. C.7. SAN59A: Pl-7b. Short δ^7Li SIMS profile. The red arrows mark the δ^7Li profiles; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

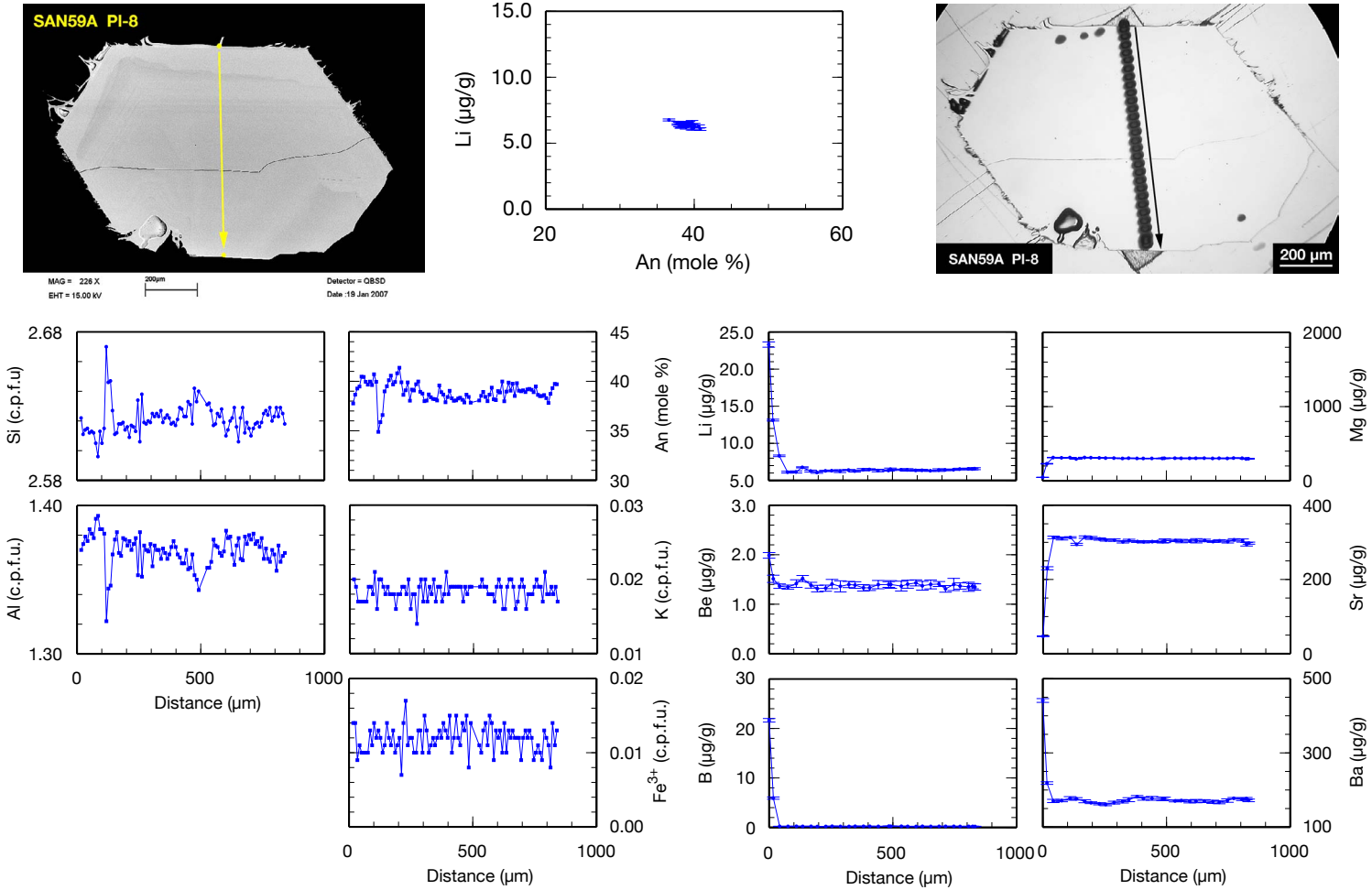


Fig. C.8. SAN59A: Pl-8. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

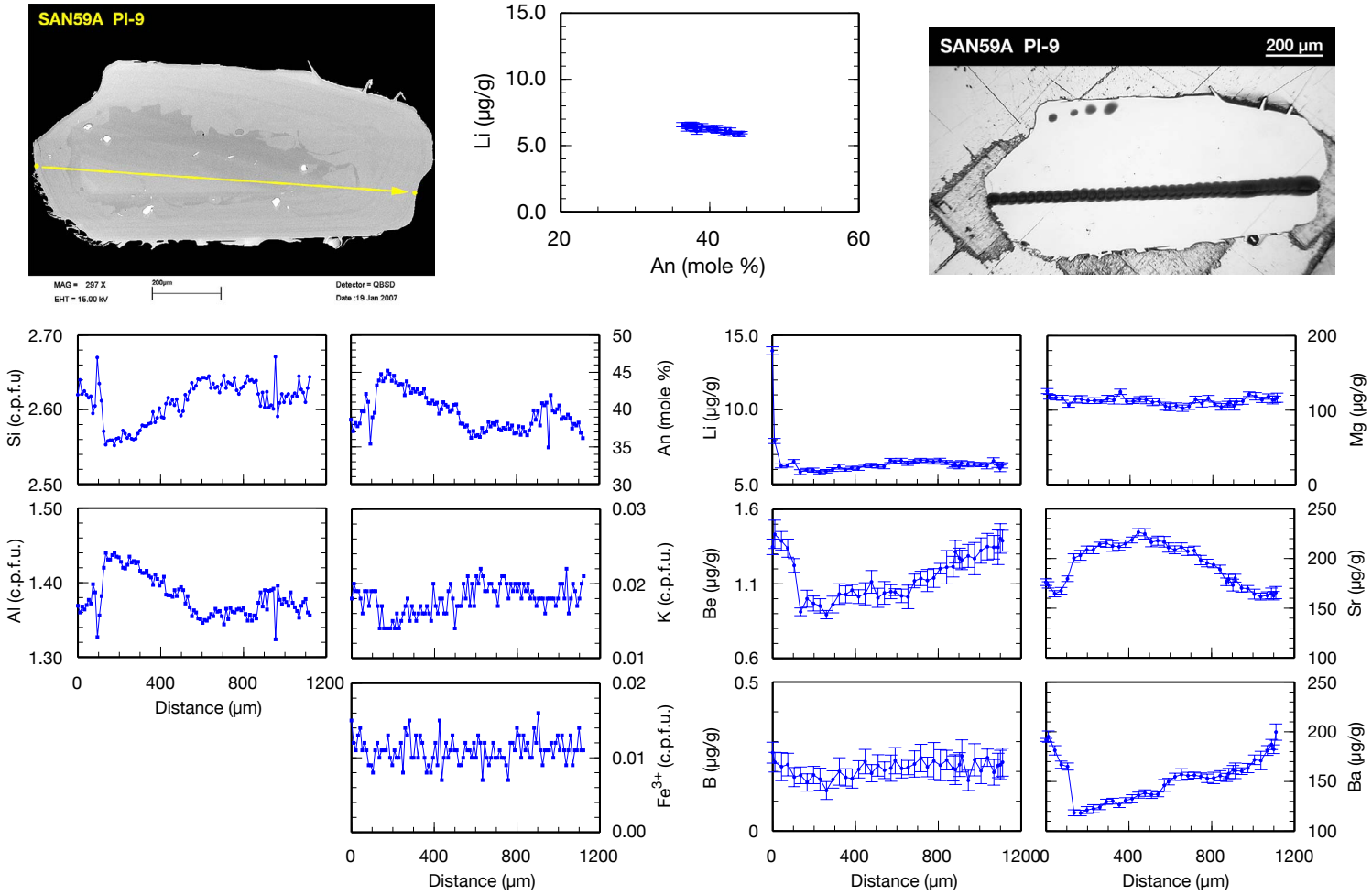


Fig. C.9. SAN59A: Pl-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

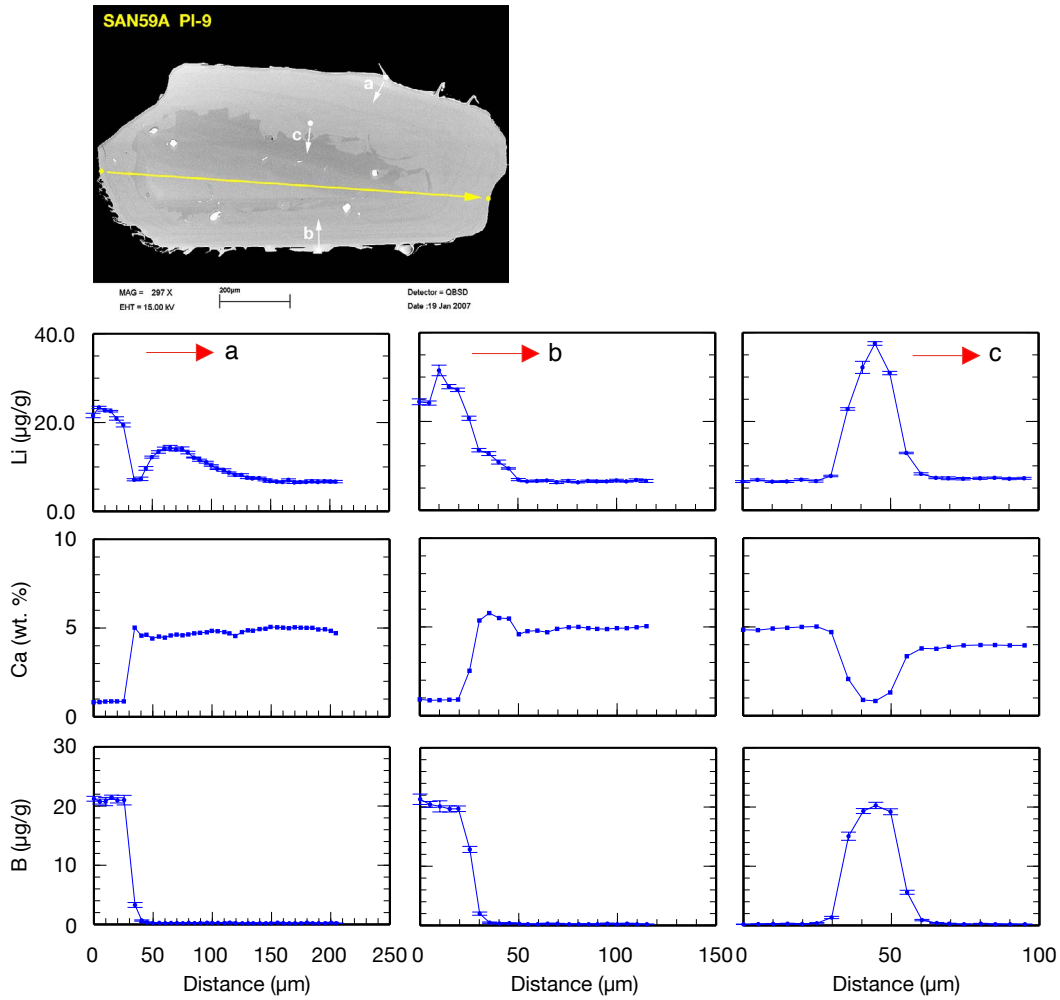


Fig. C.10. SAN59A: Pl-9. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

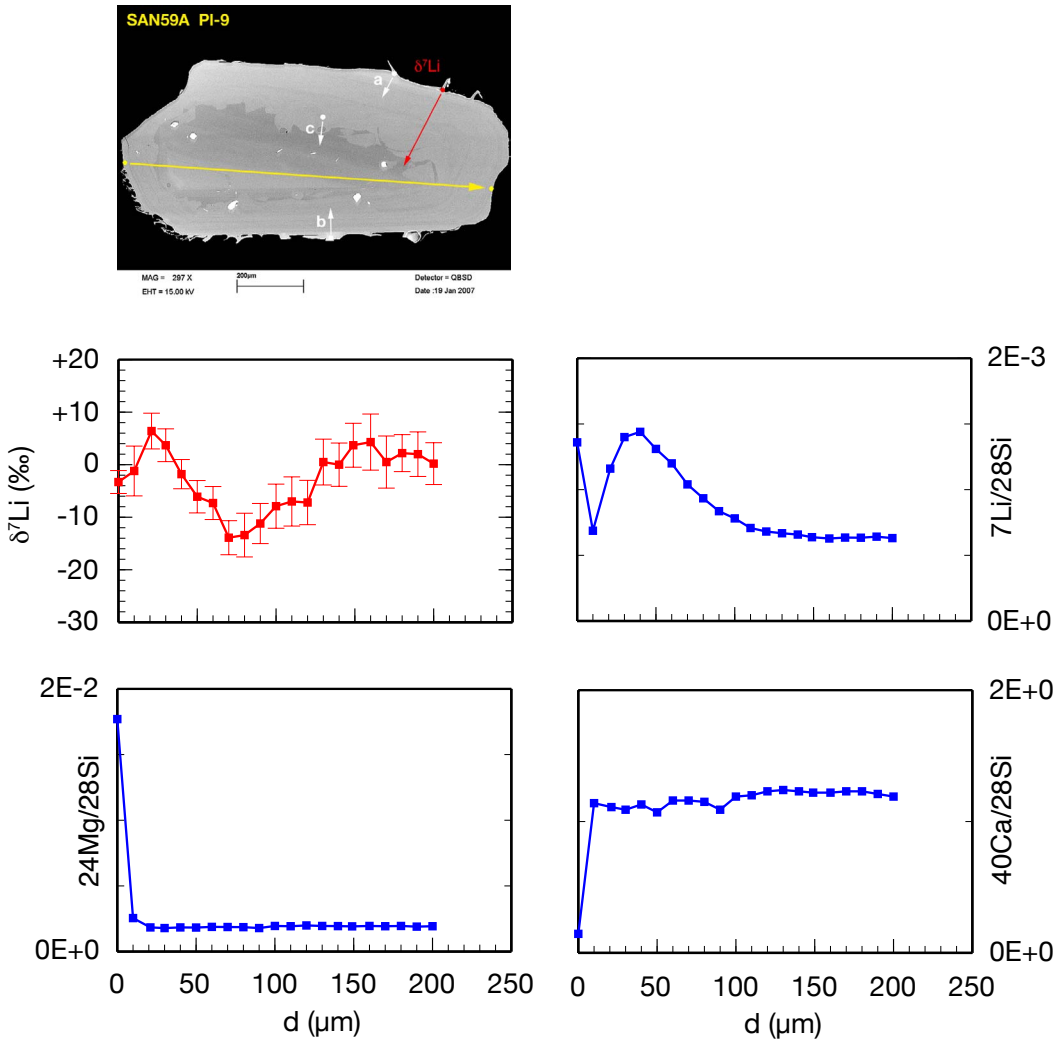


Fig. C.11. SAN59A: Pl-9. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

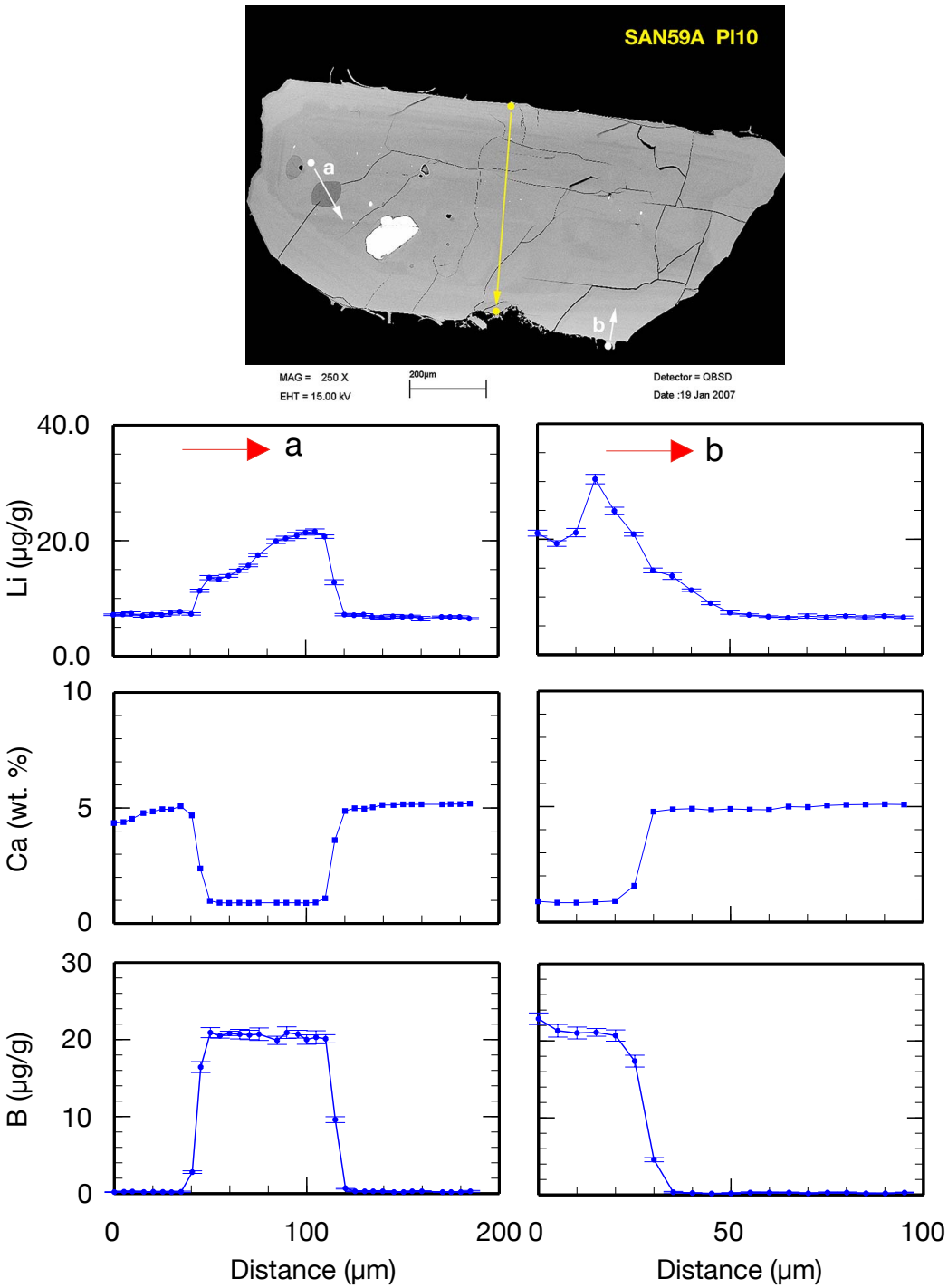


Fig. C.12. SAN59A: Pl-10. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

C.0.18. Overview – SAN59C

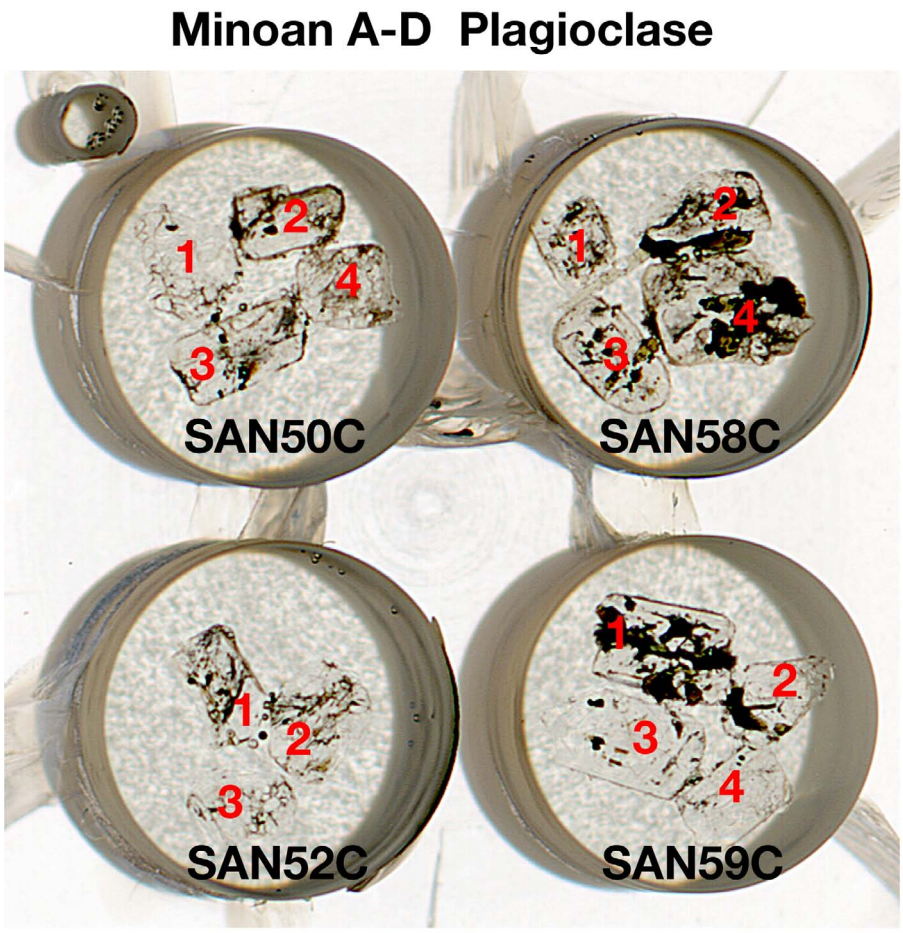


Fig. C.13. Sample SAN59C: Clear crystals are plagioclase grains.

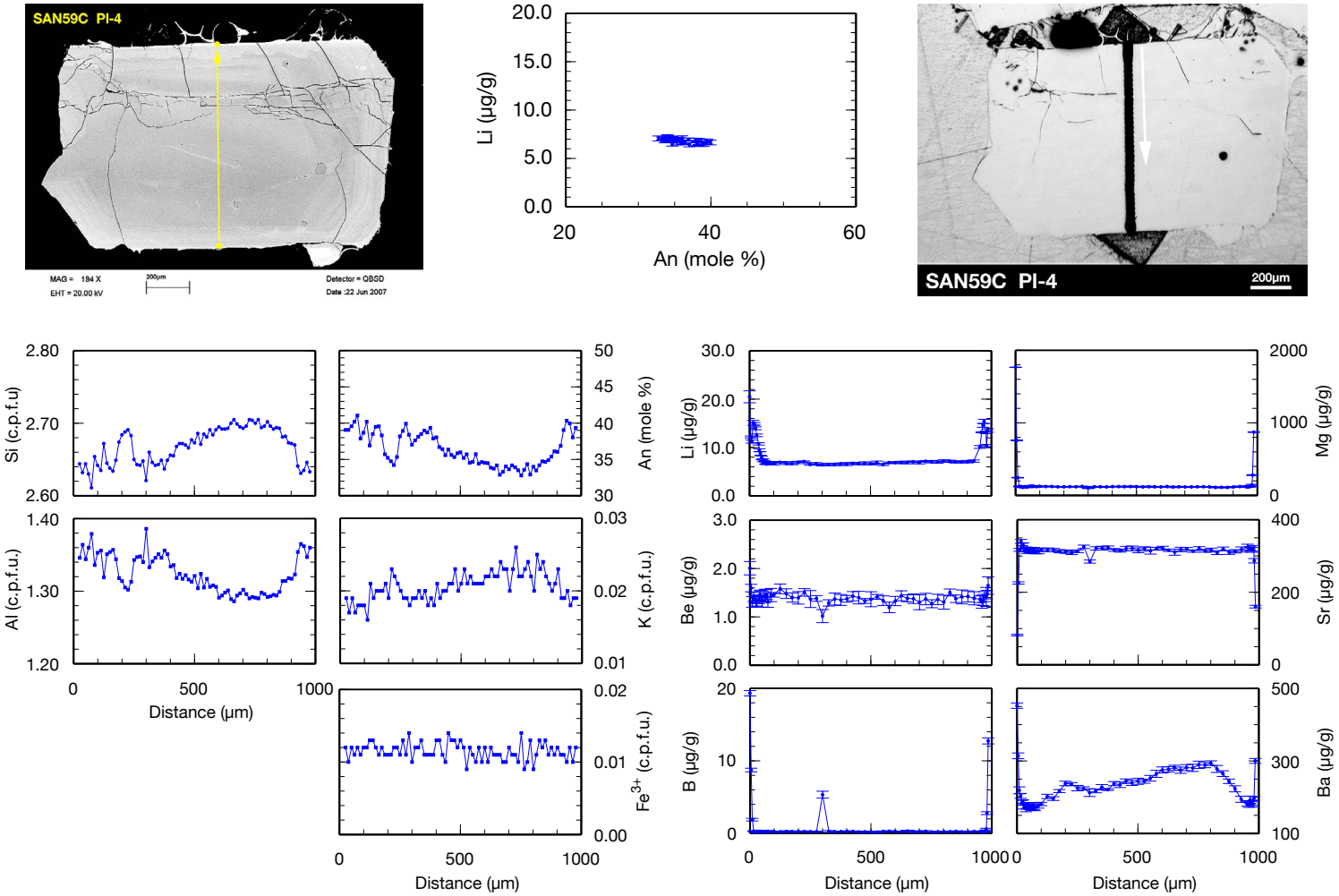


Fig. C.14. SAN59C: Pl-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

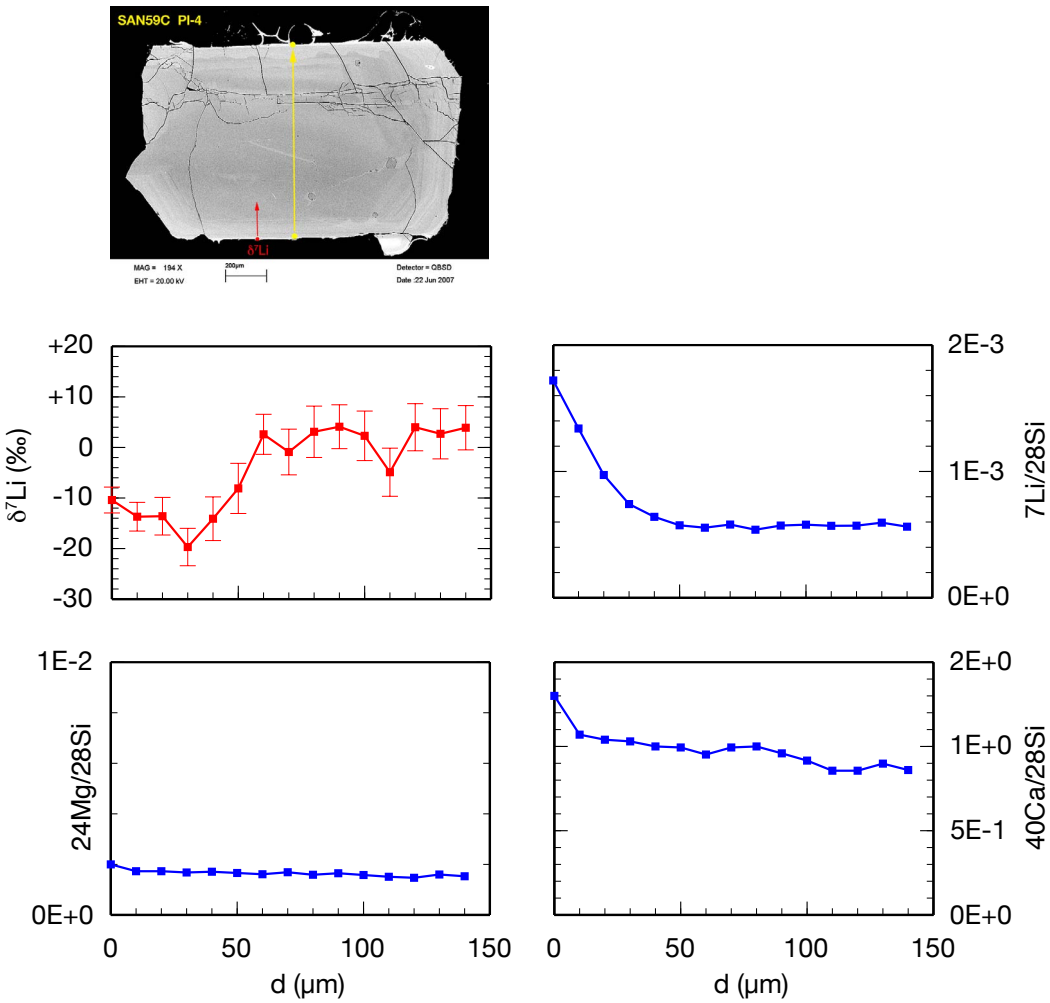


Fig. C.15. SAN59C: Pl-4. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

C.0.19. Overview – SAN59D

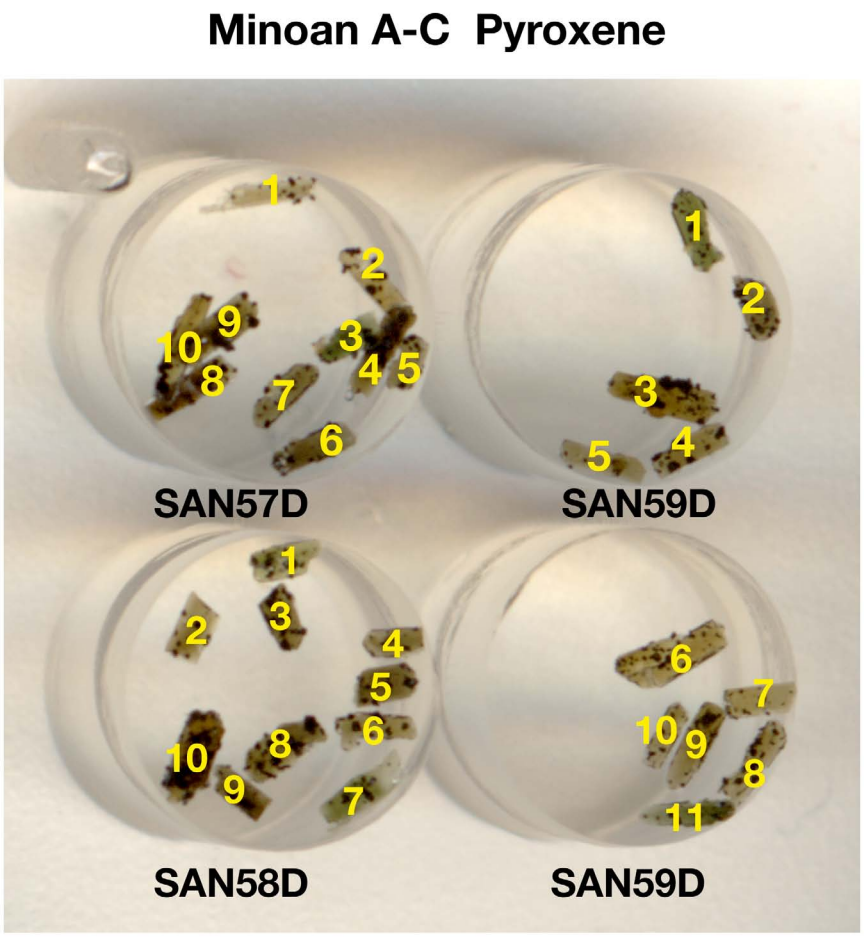


Fig. C.16. Sample SAN59D: Brown crystals are opx grains and green crystals are cpx grains.

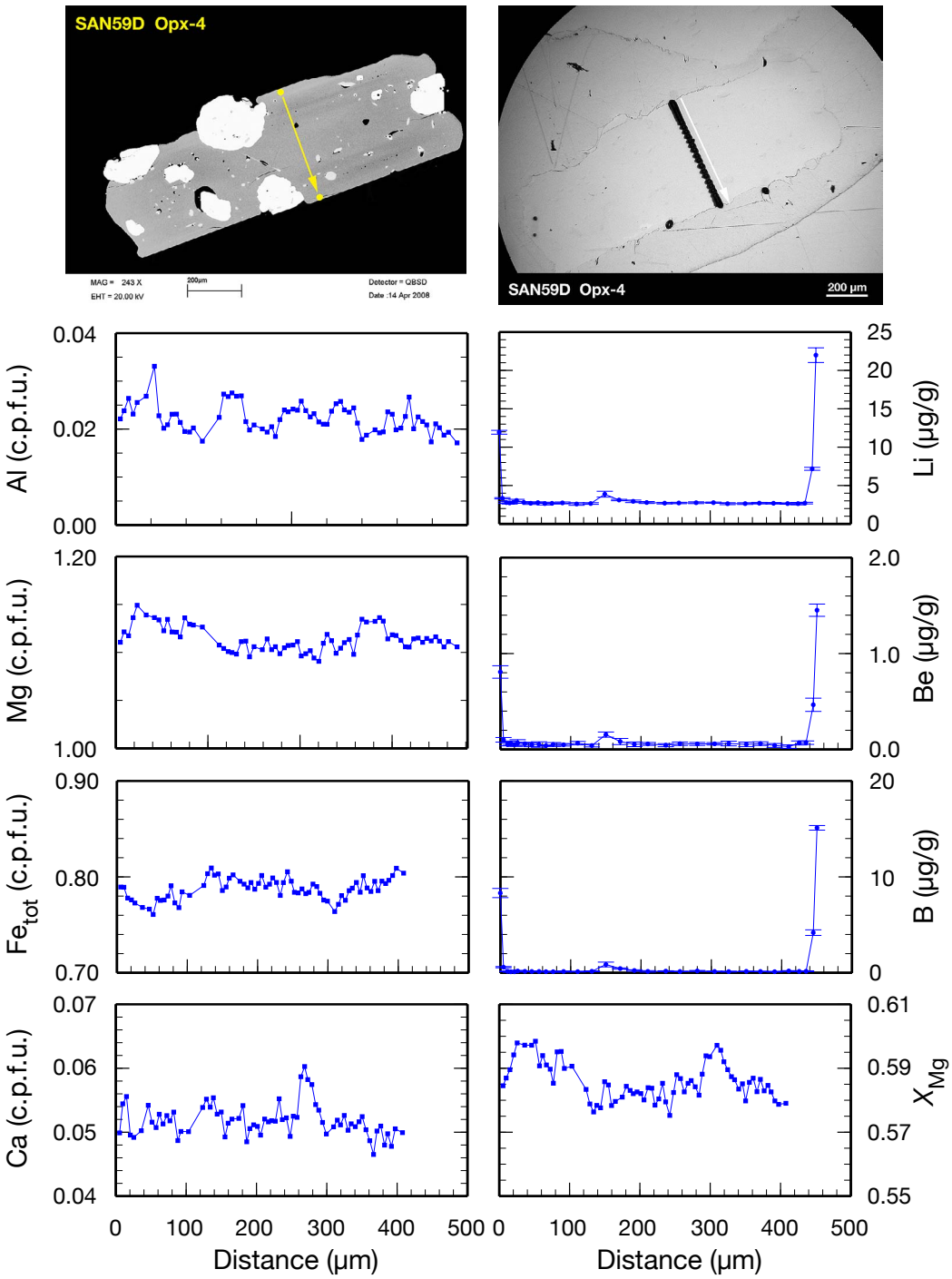


Fig. C.17. SAN59D: Opx-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

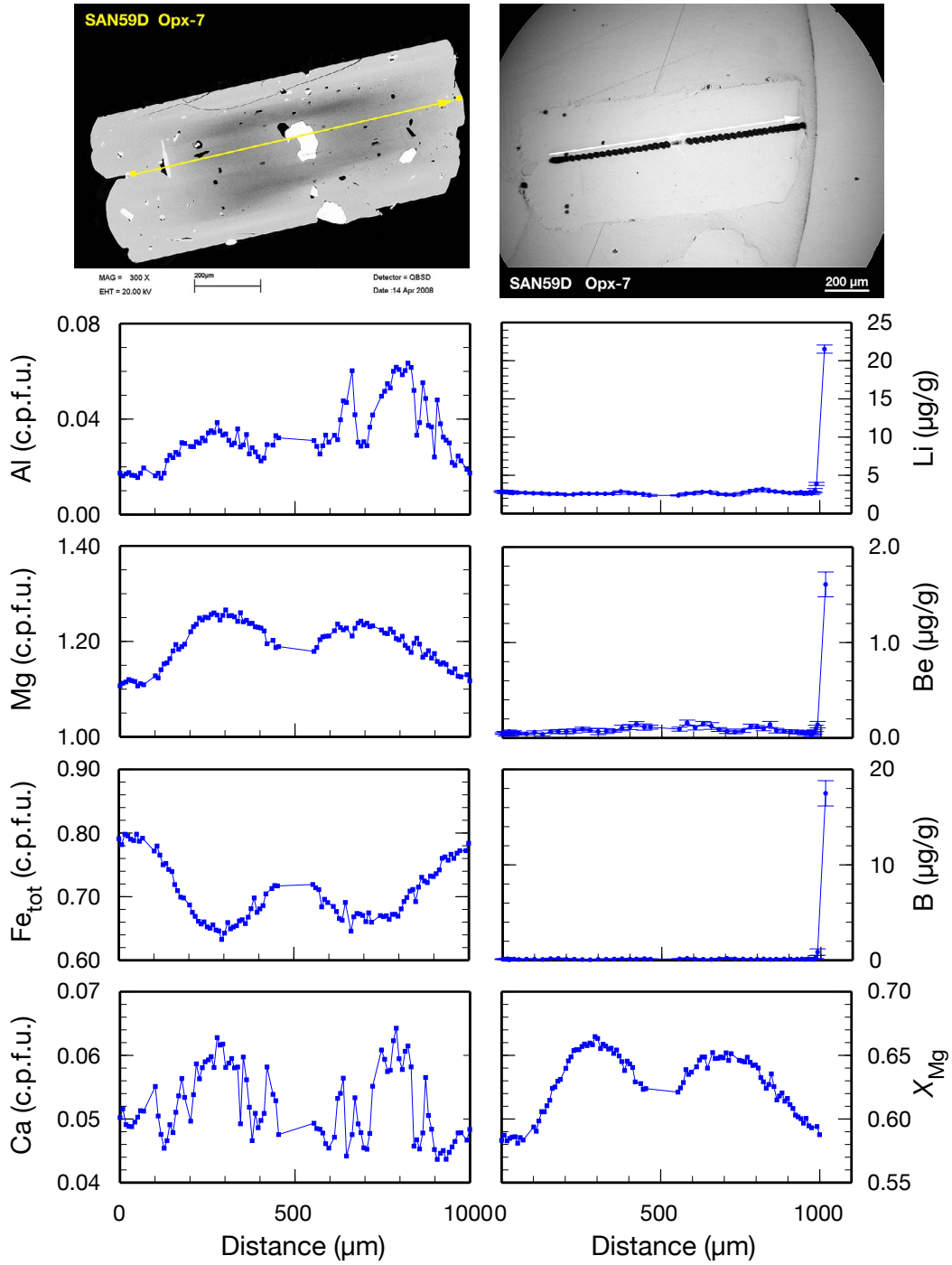


Fig. C.18. SAN59D: Opx-7. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

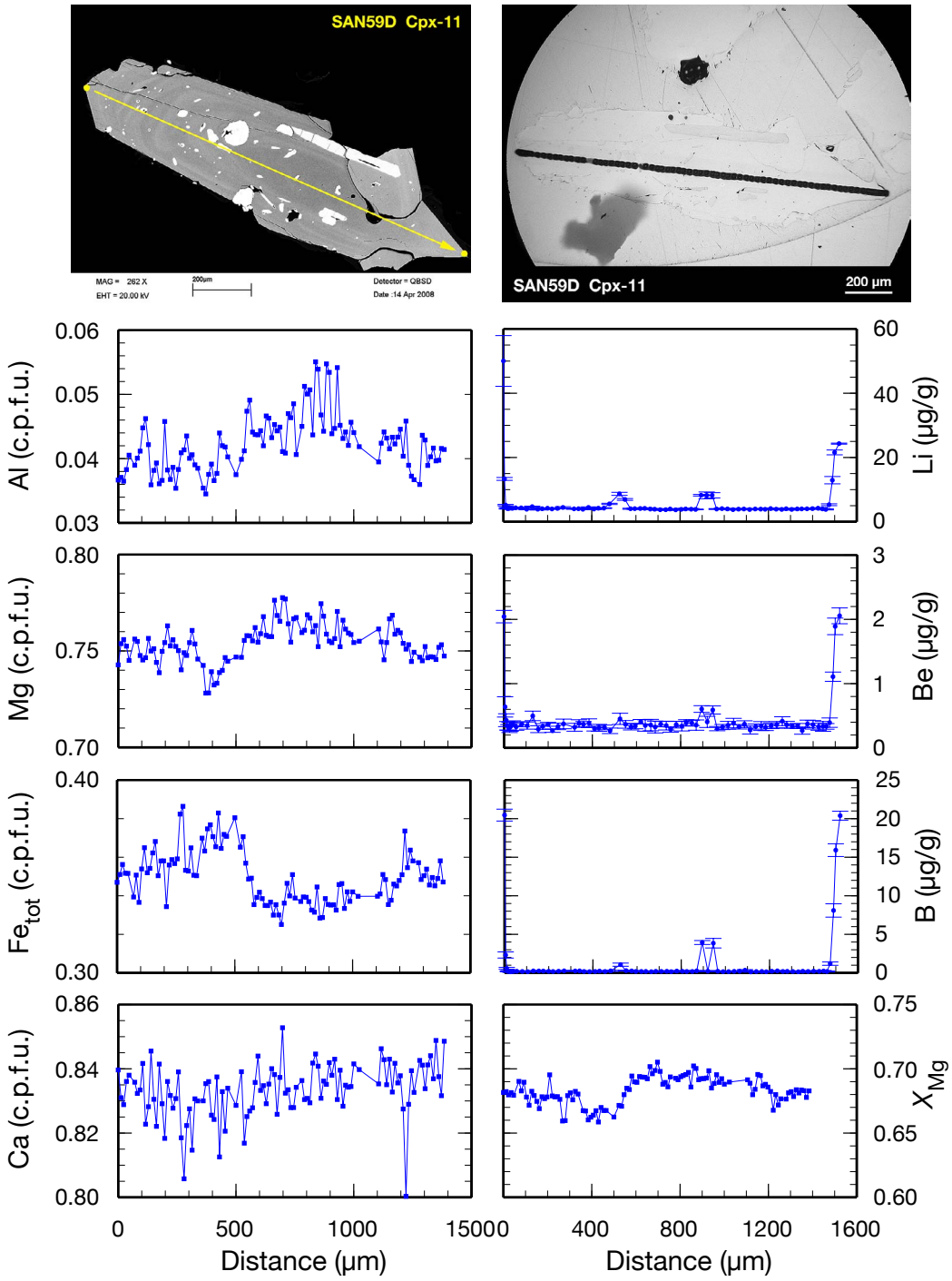


Fig. C.19. SAN59D: Cpx-11. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

D. Appendix – Minoan D

D.0.20. Overview – SAN50A

Fig. D.1. Sample SAN50A: Clear crystals are plagioclase grains.

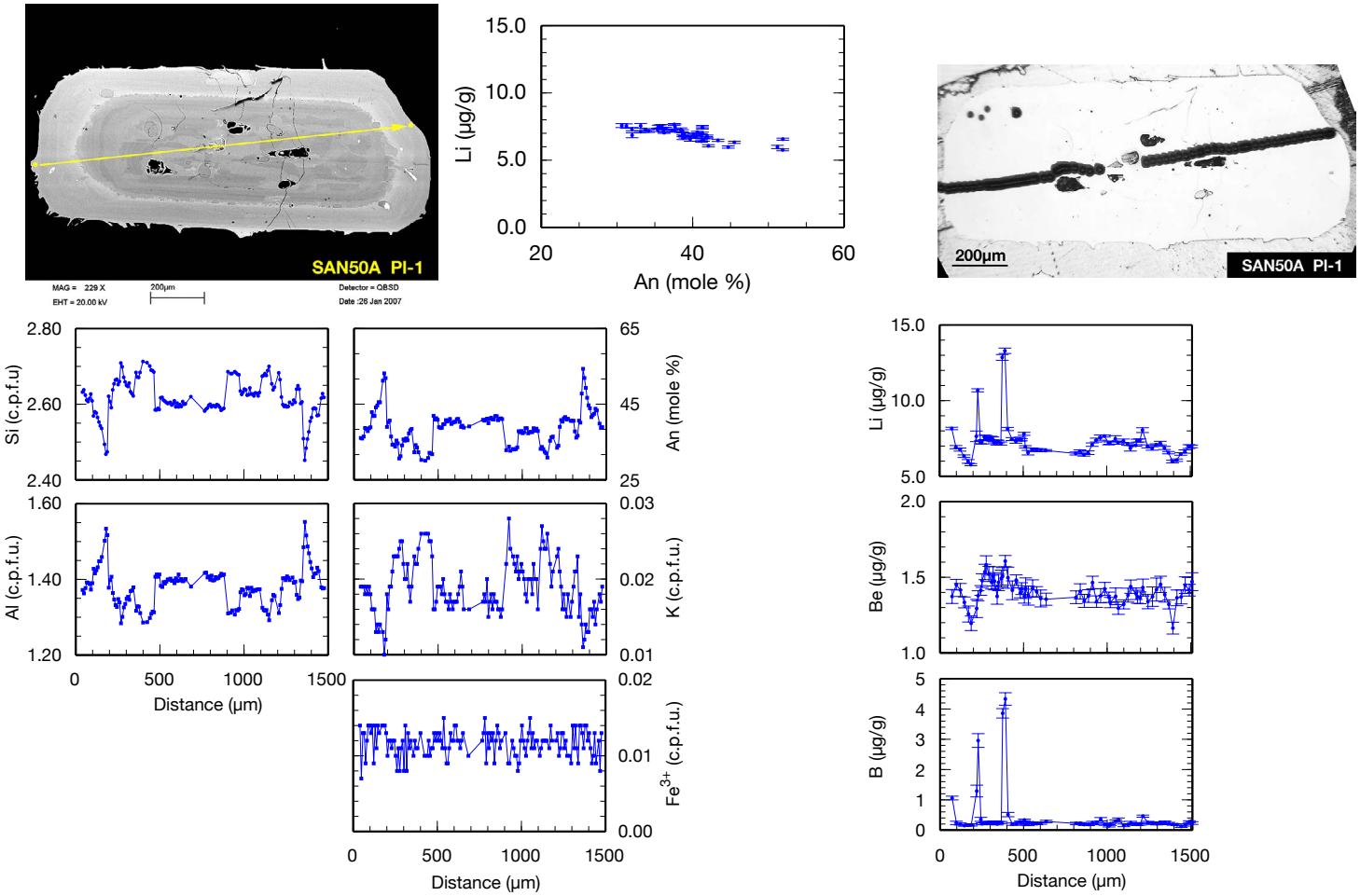


Fig. D.2. SAN50A: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

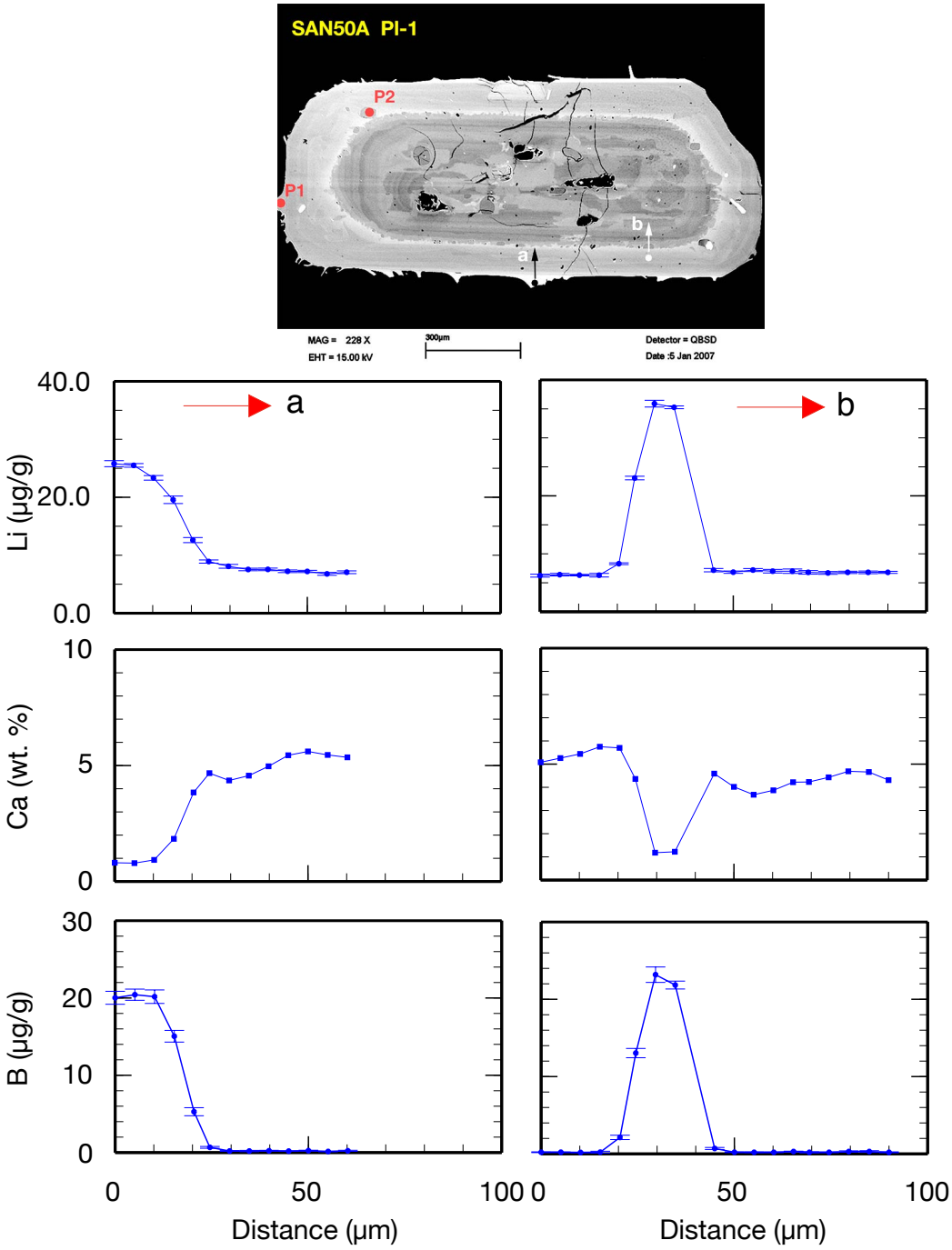


Fig. D.3. SAN50A: Pl-1. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

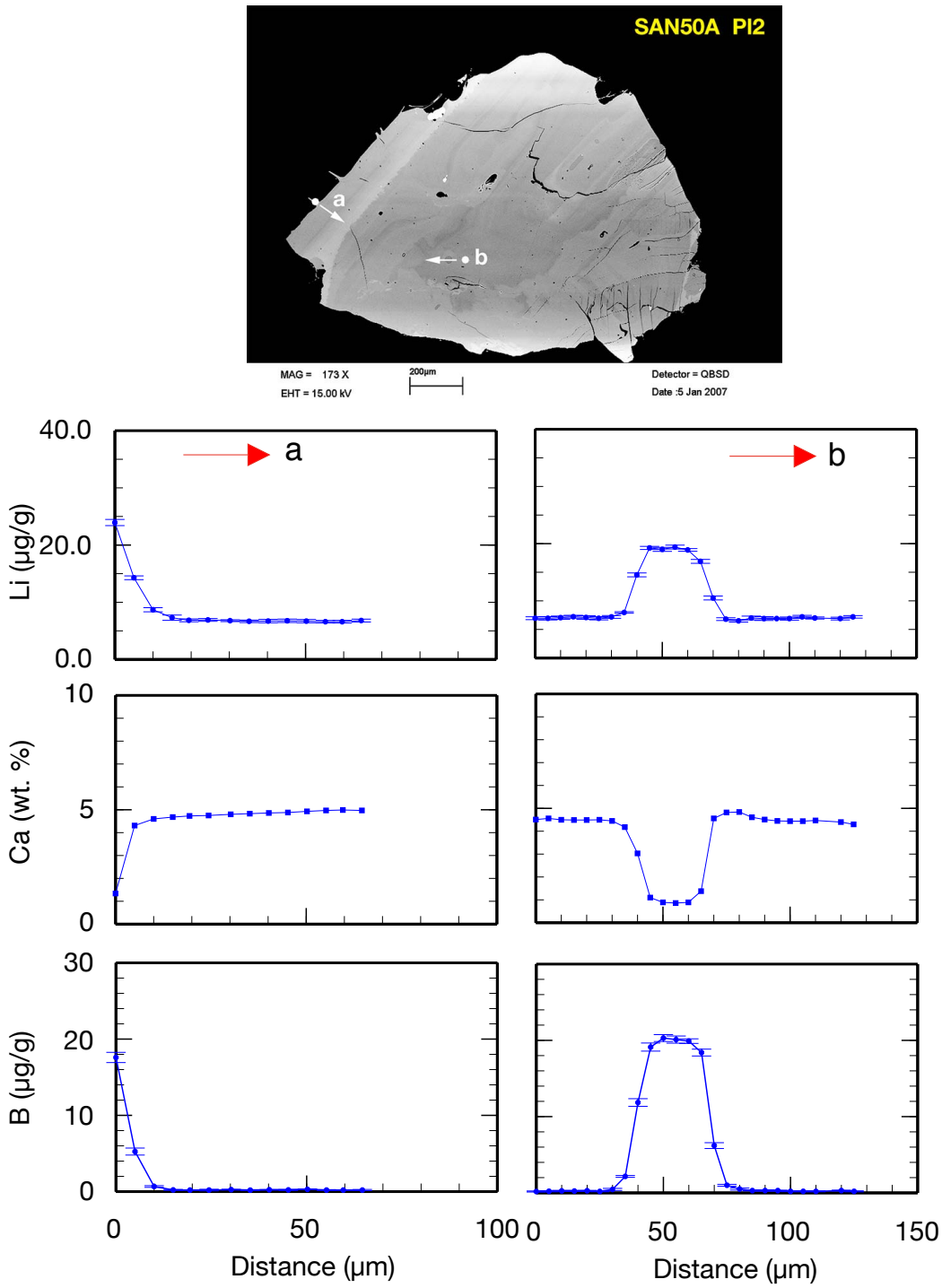


Fig. D.4. SAN50A: Pl-2. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

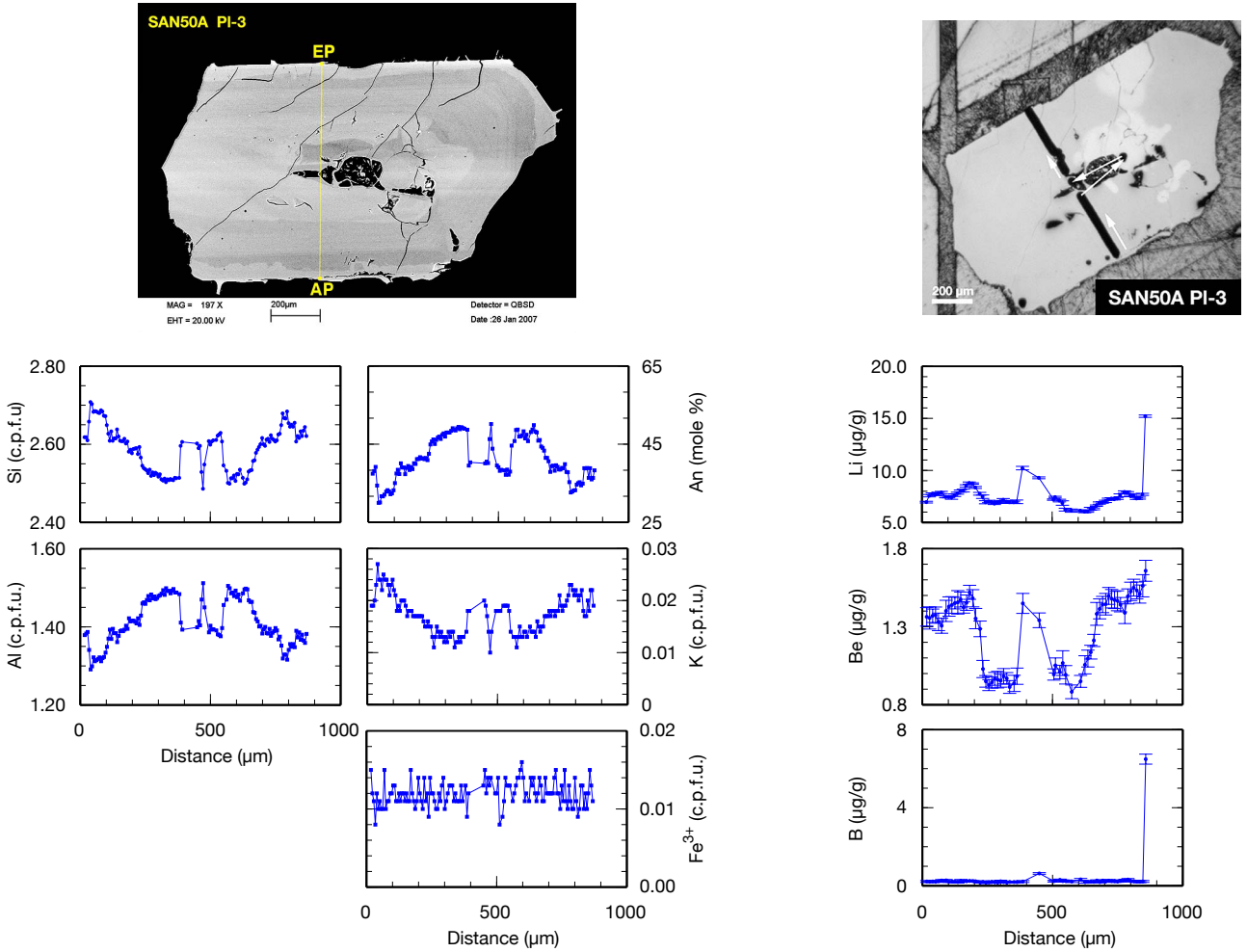


Fig. D.5. SAN50A: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

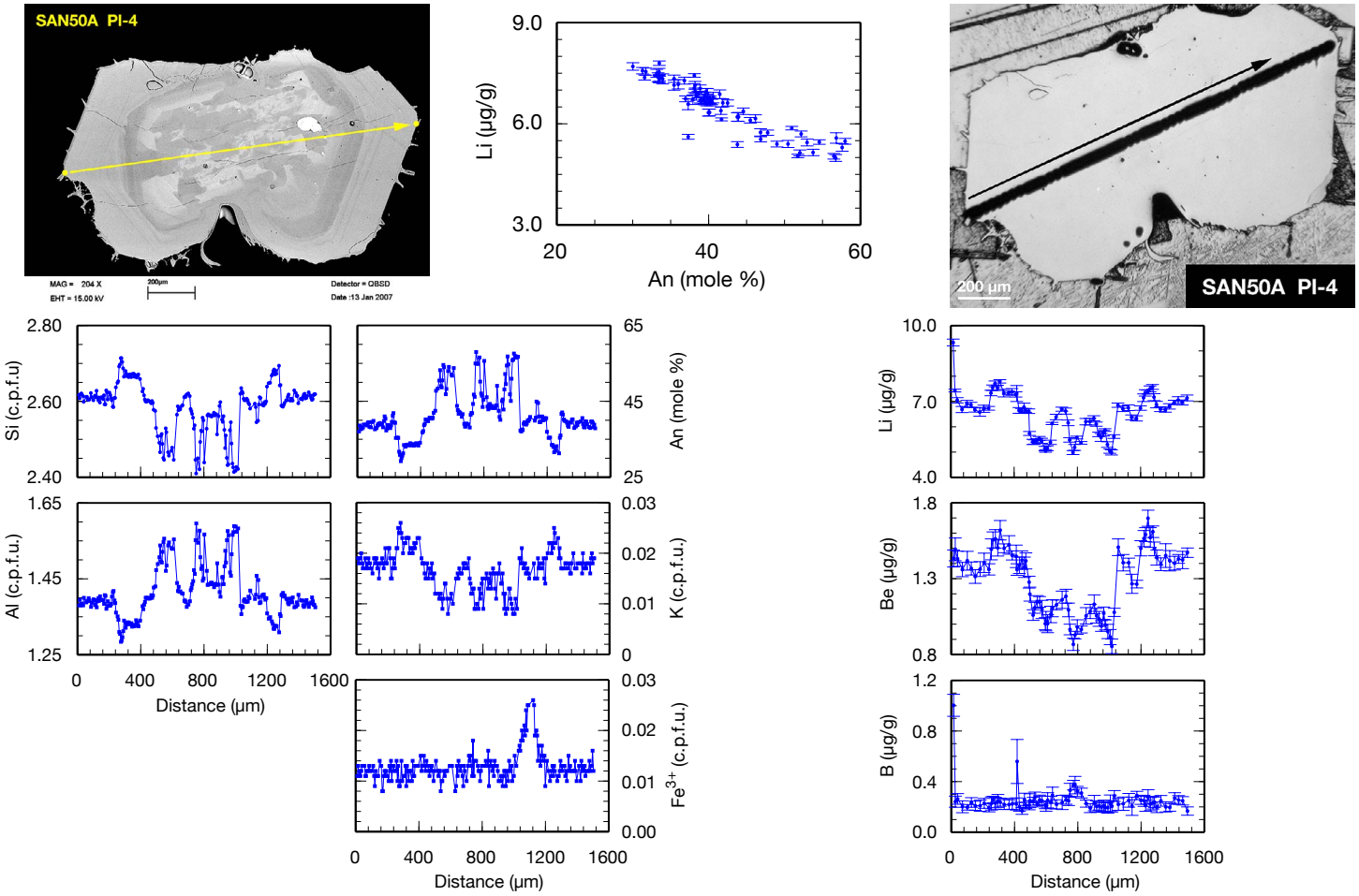


Fig. D.6. SAN50A: Pl-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

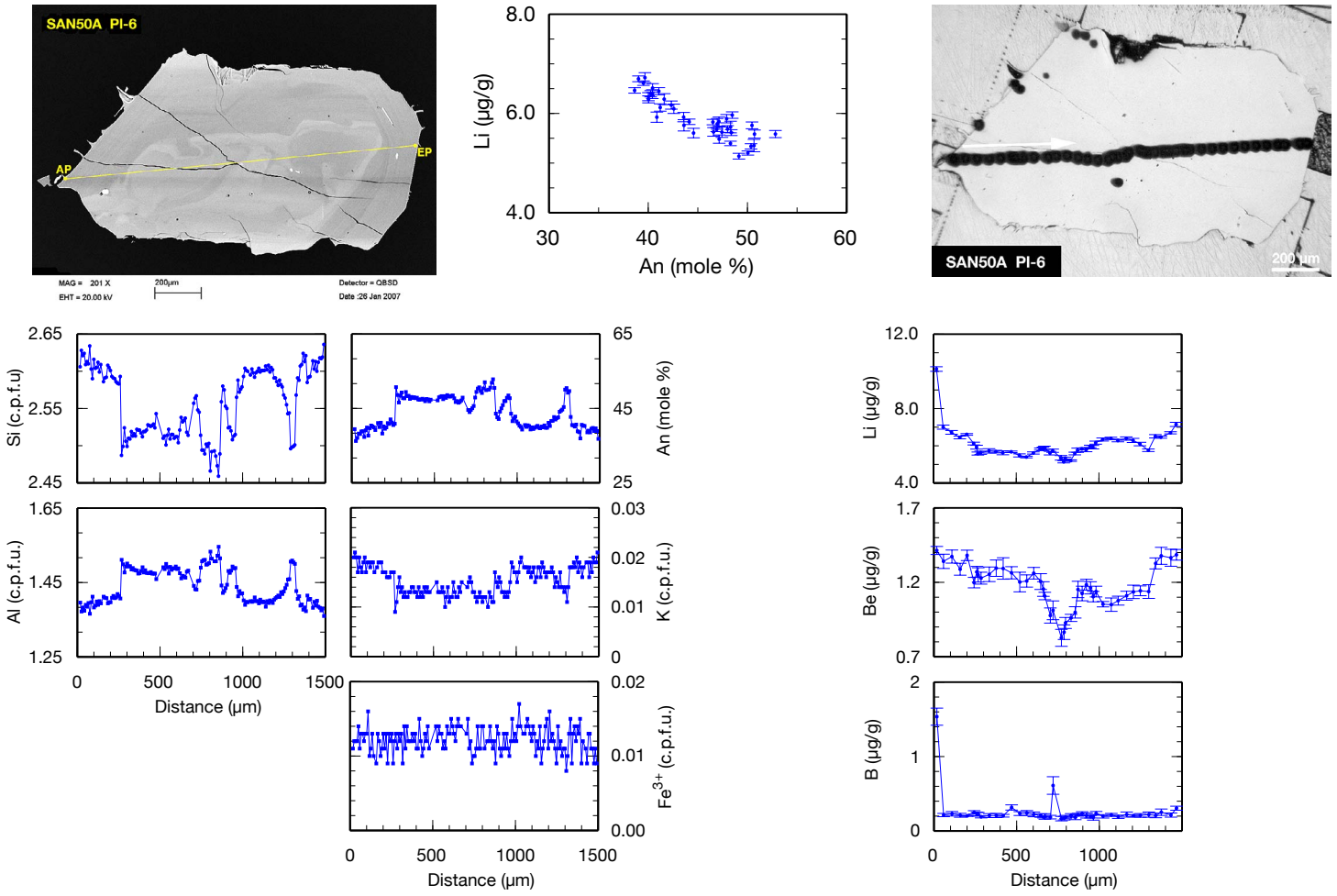


Fig. D.7. SAN50A: Pl-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

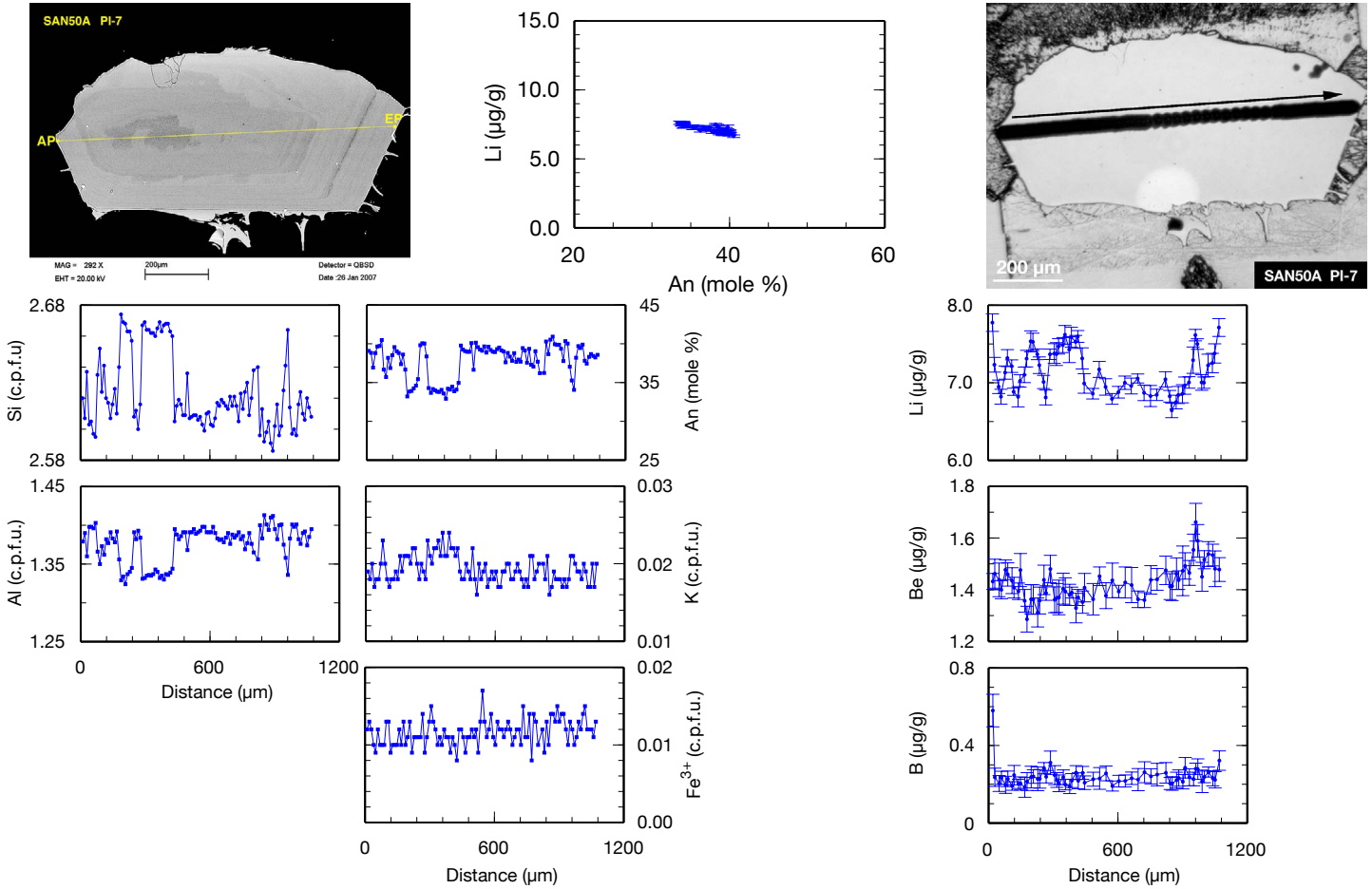


Fig. D.8. SAN50A: Pl-7. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

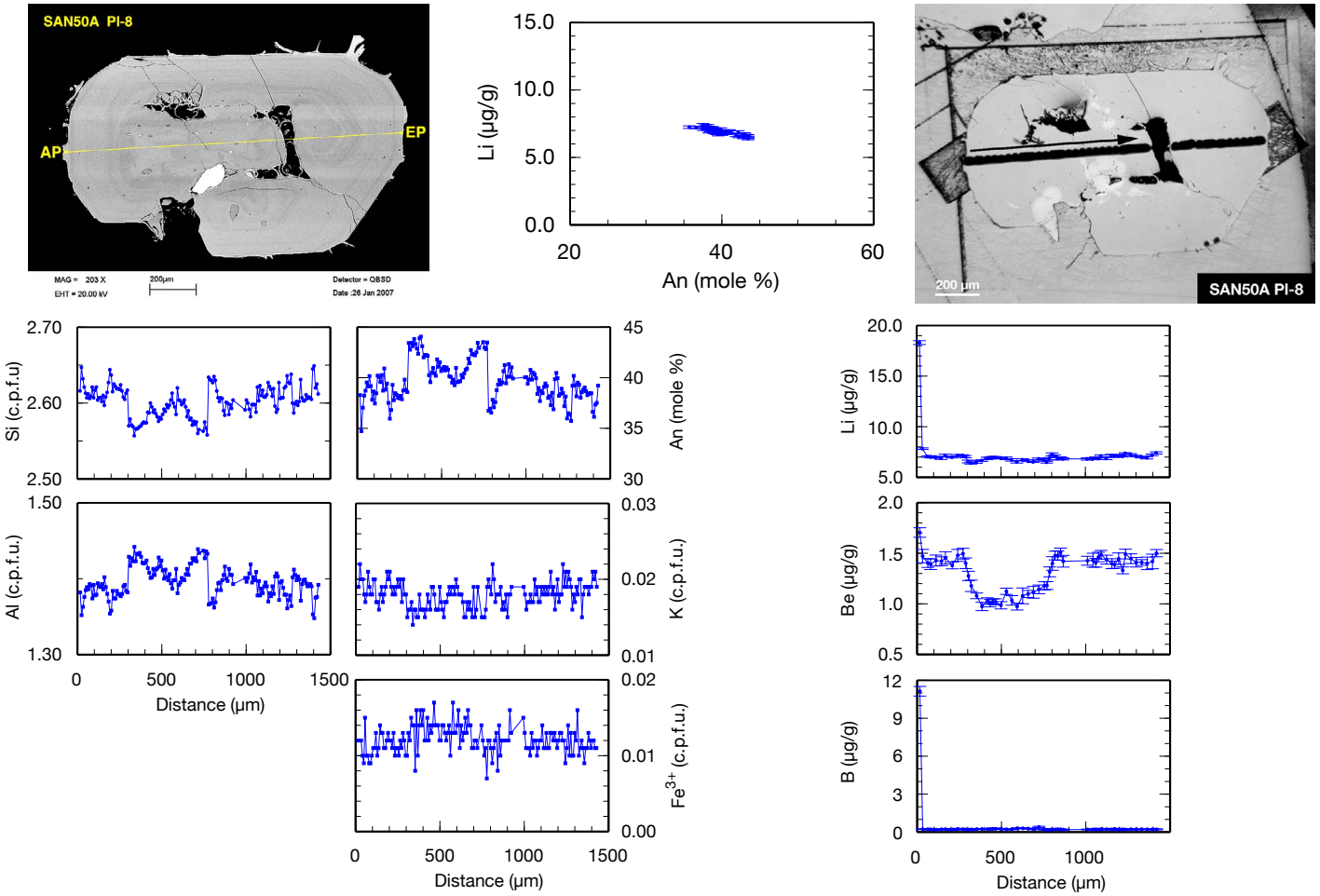


Fig. D.9. SAN50A: Pl-8. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

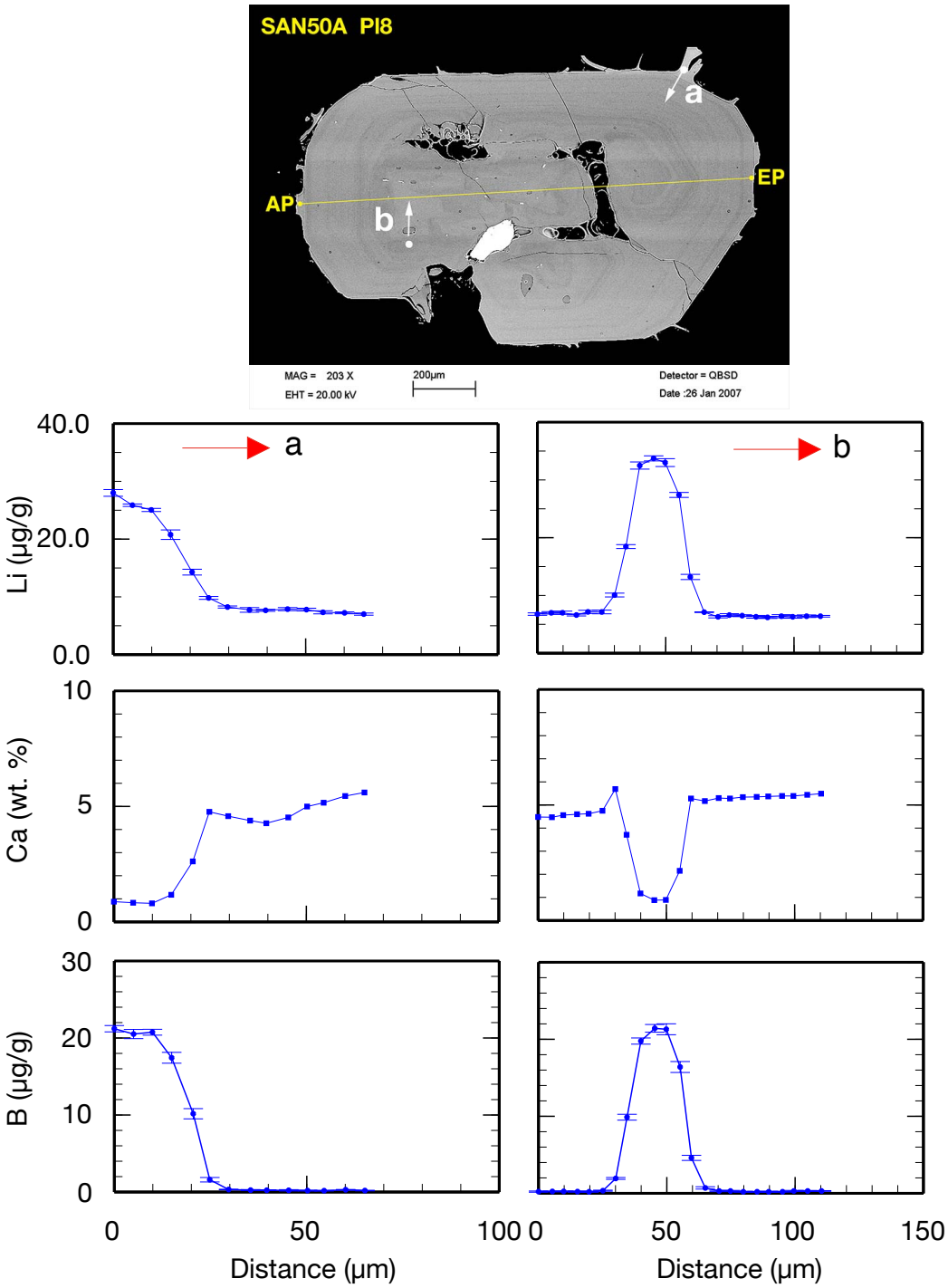


Fig. D.10. SAN50A: Pl-8. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

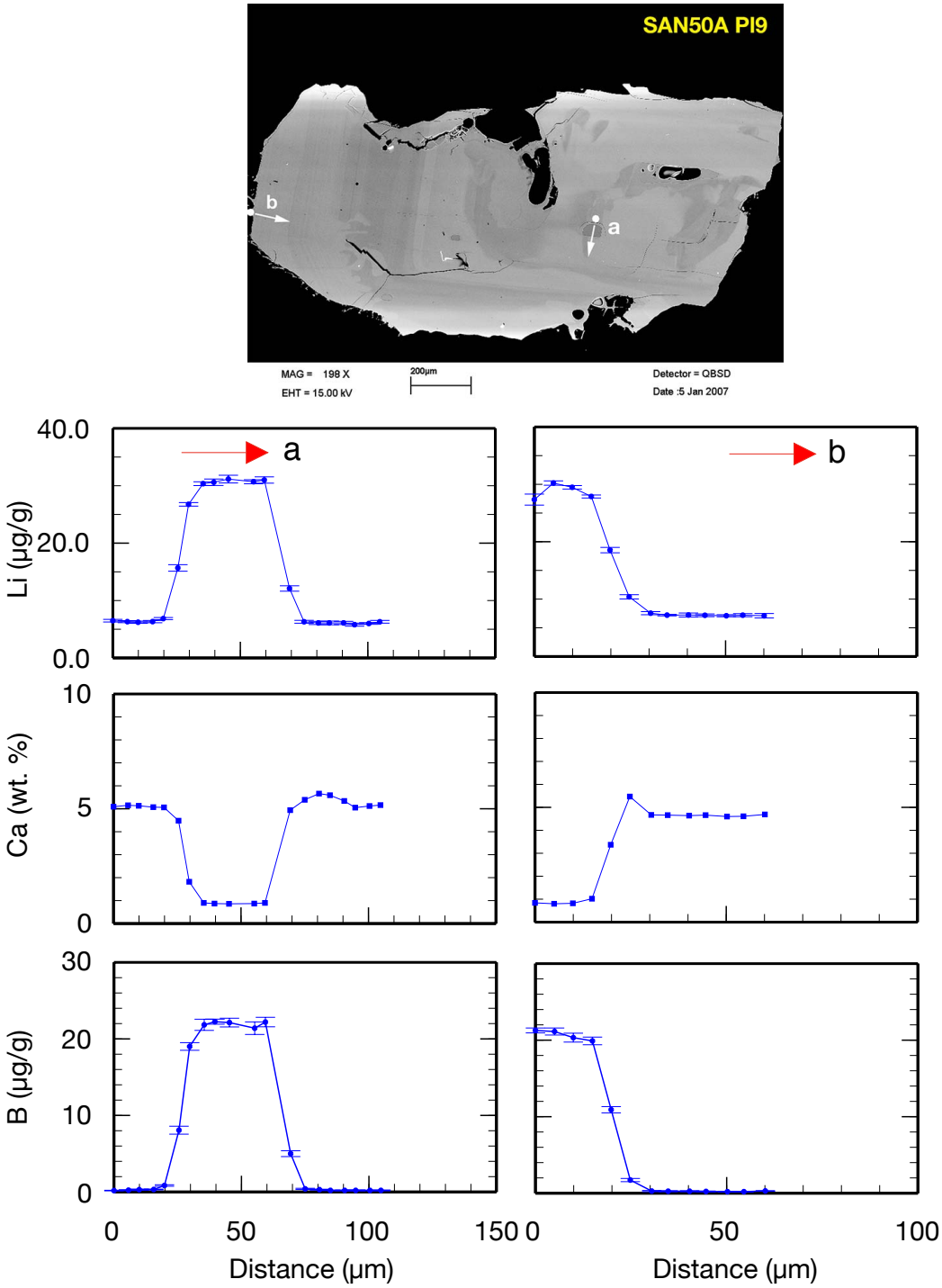


Fig. D.11. SAN50A: Pl-9. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

D.0.21. Overview – SAN50B

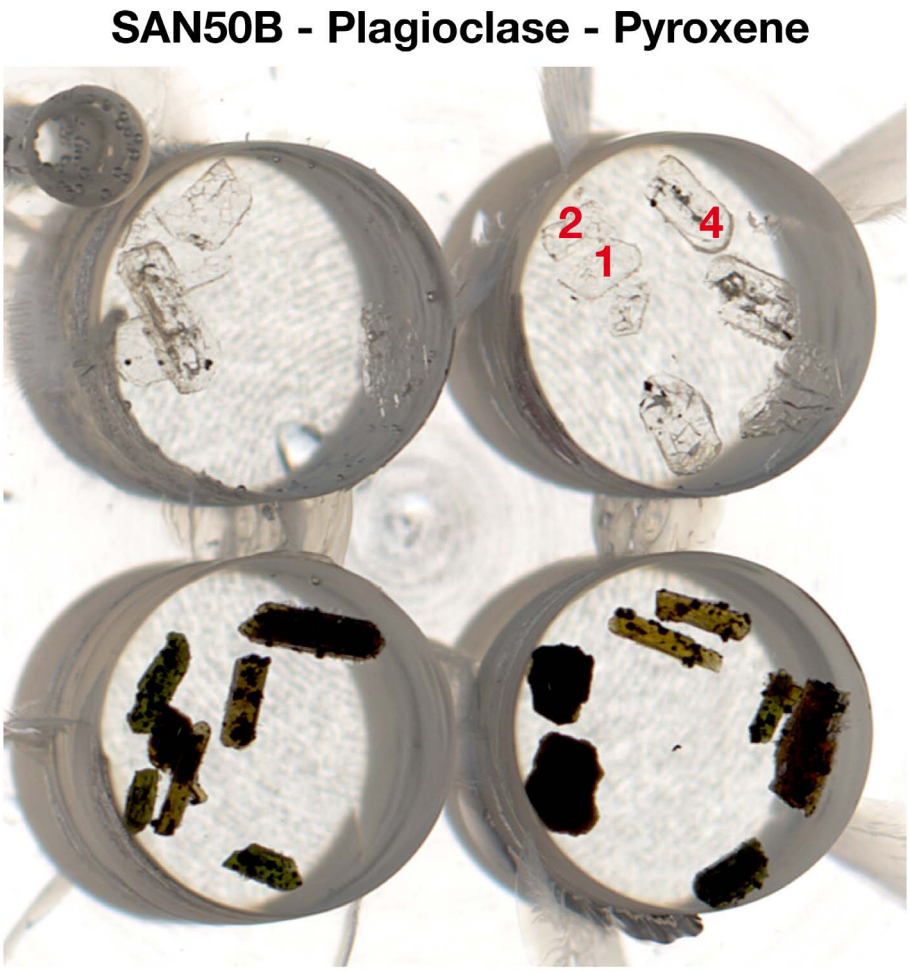


Fig. D.12. Sample SAN50B: Clear crystals are plagioclase grains. Brown crystals are opx grains and green crystals are cpx grains.

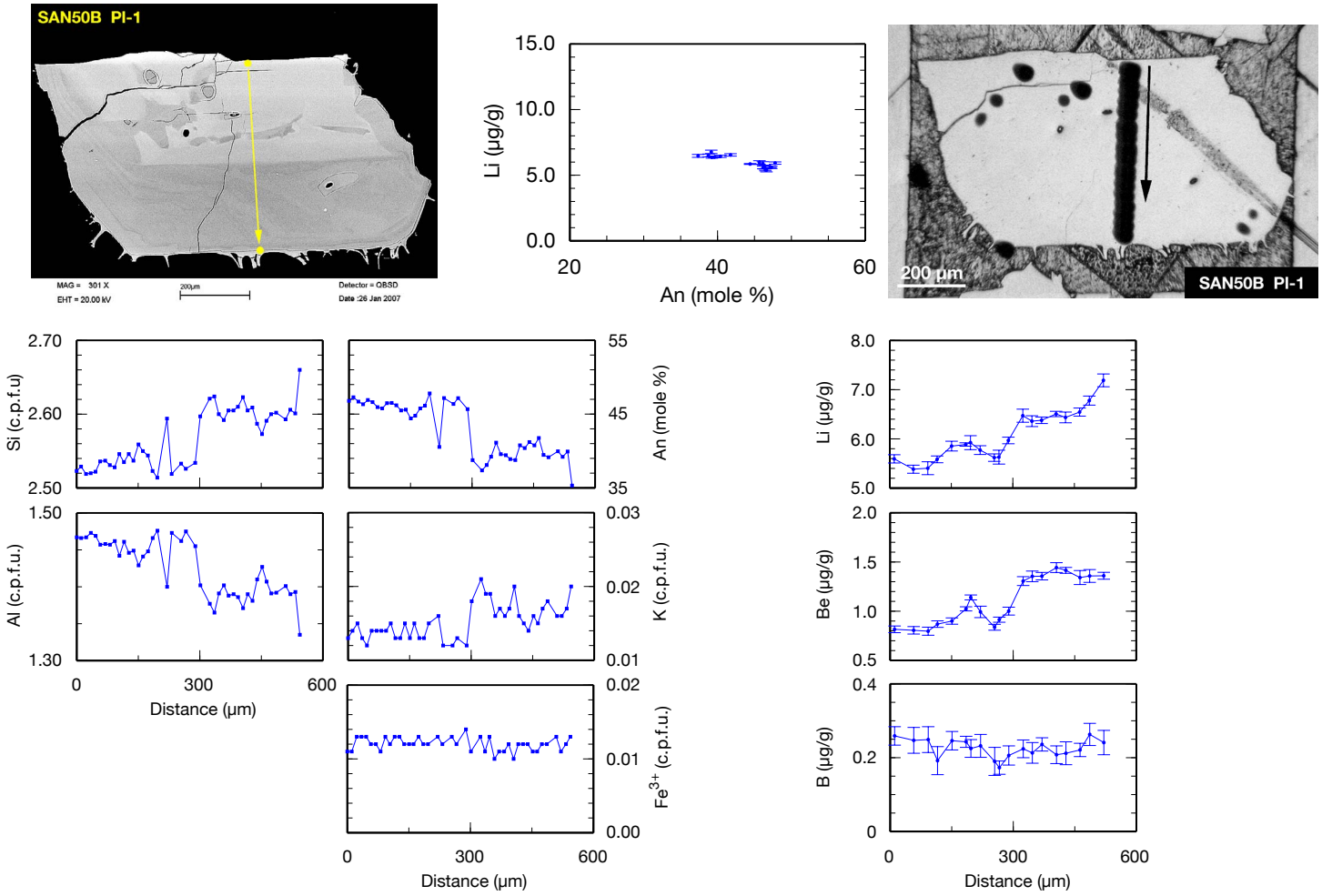


Fig. D.13. SAN50B: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

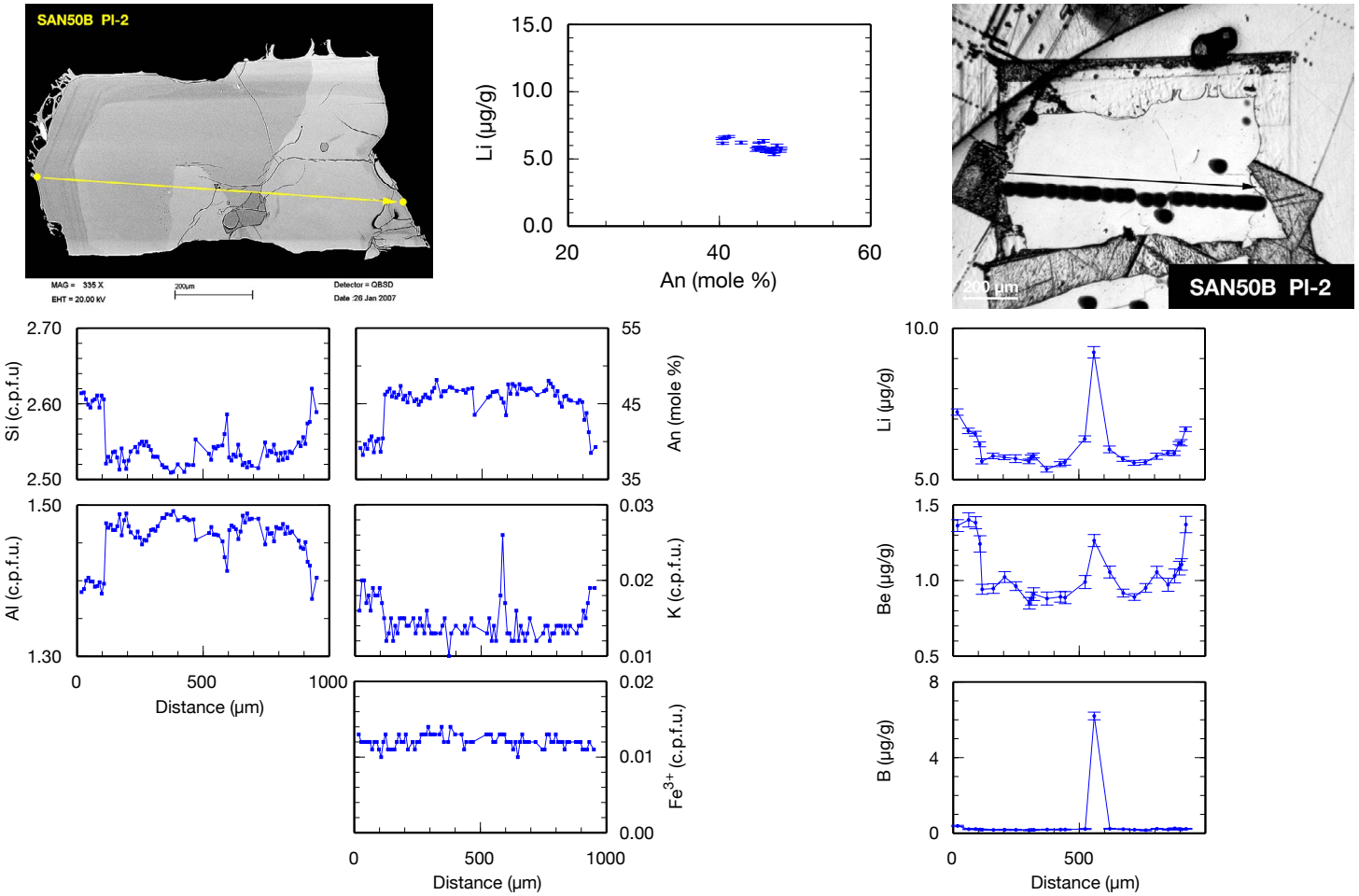


Fig. D.14. SAN50B: Pl-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

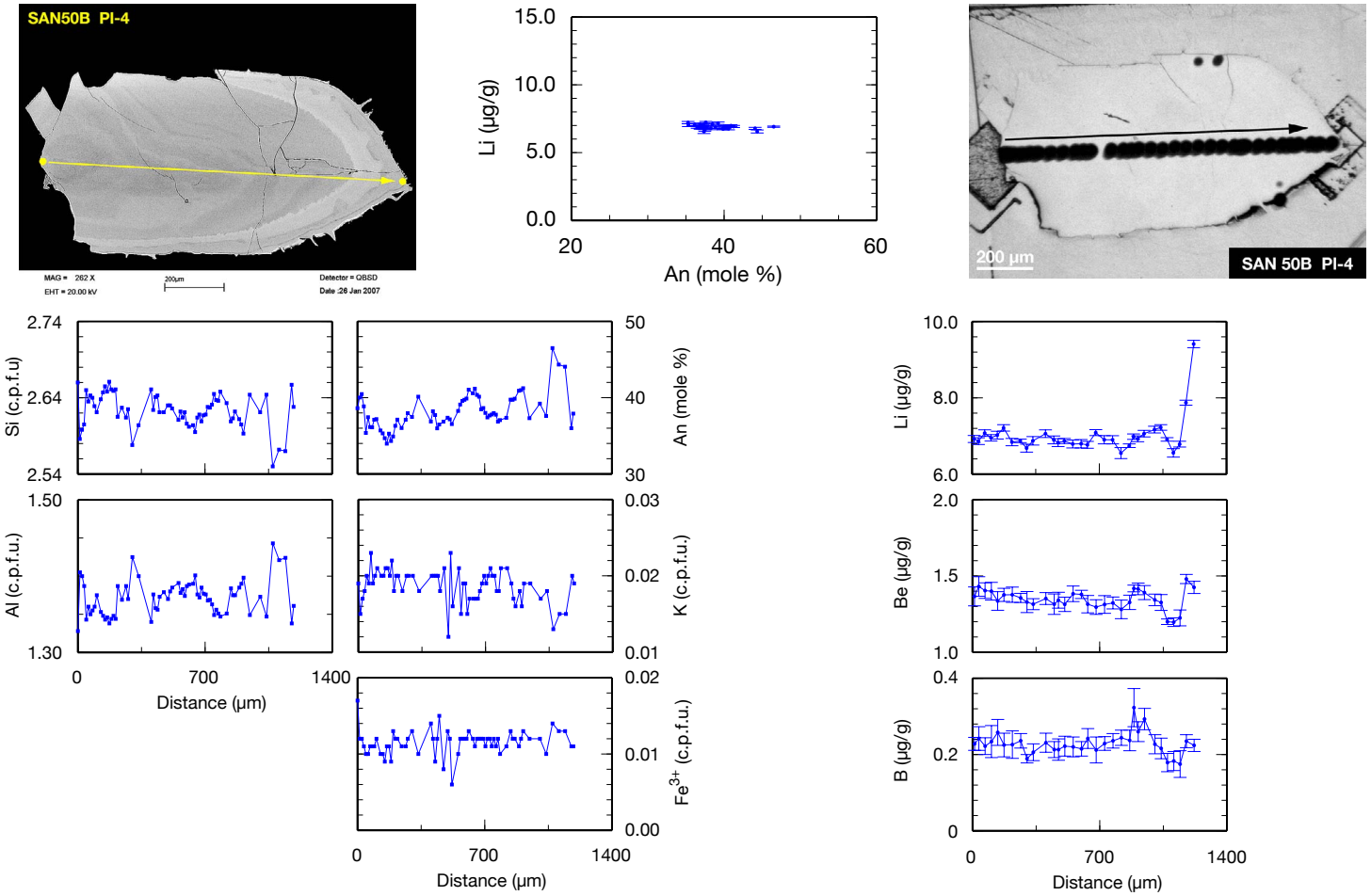


Fig. D.15. SAN50B: Pl-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

D.0.22. Overview – SAN50C

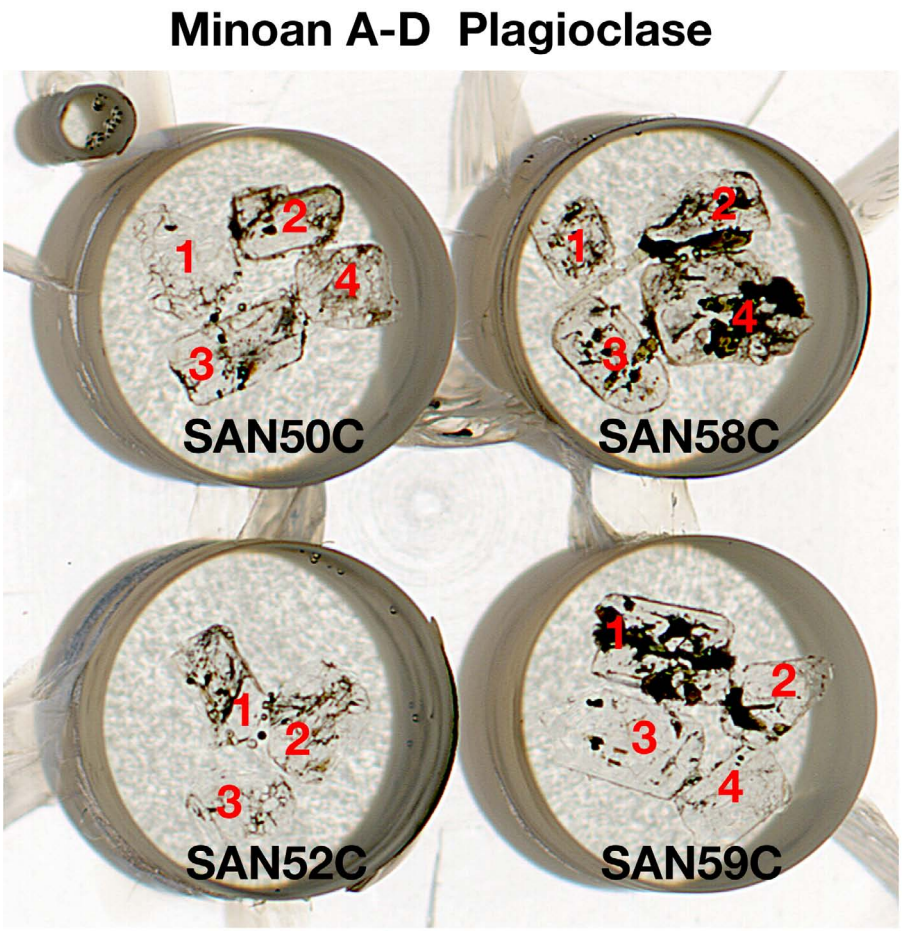


Fig. D.16. Sample SAN50B: Clear crystals are plagioclase grains. Brown crystals are opx grains and green crystals are cpx grains.

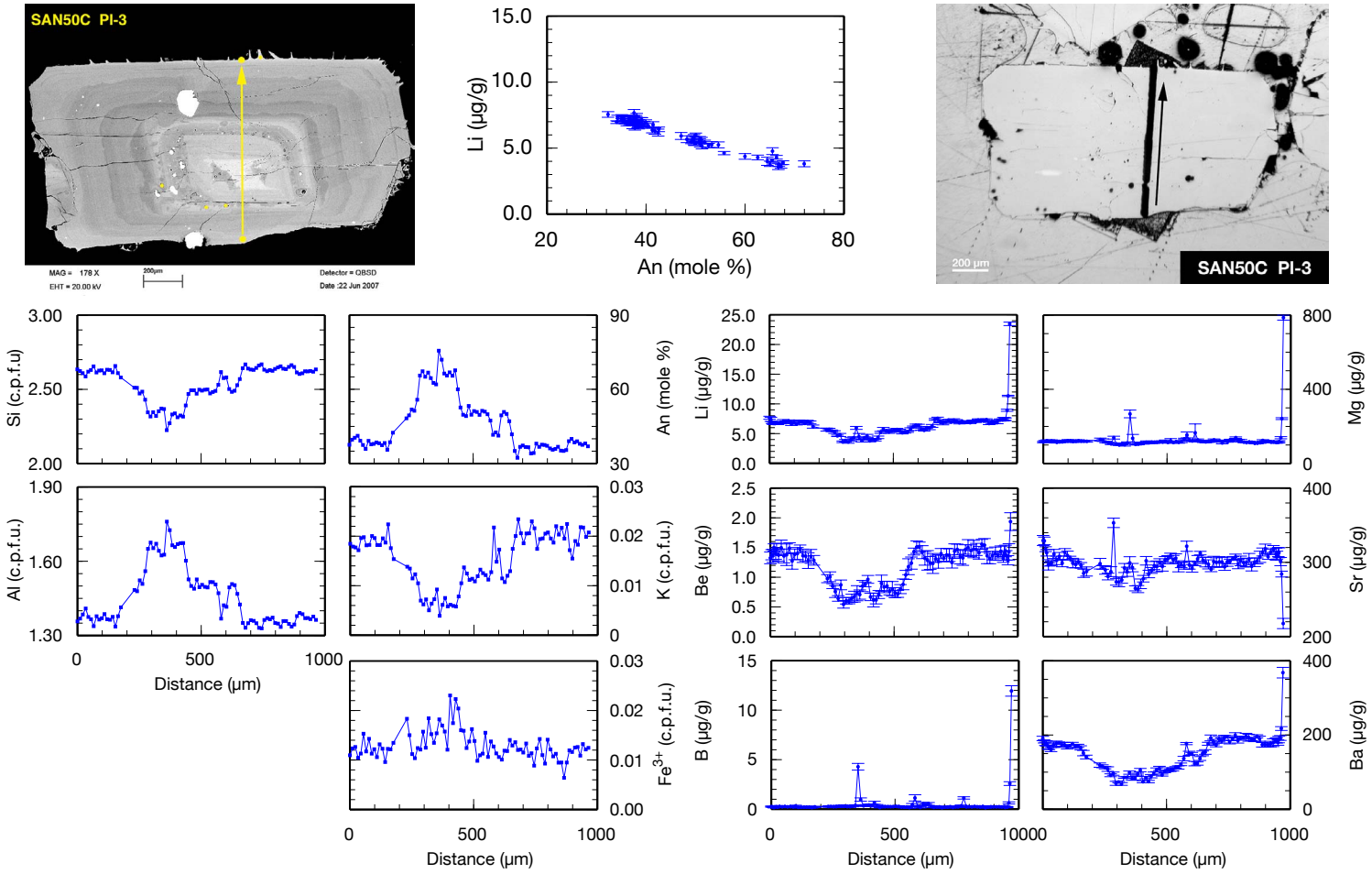


Fig. D.17. SAN50C: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

D.0.23. Overview – SAN50D

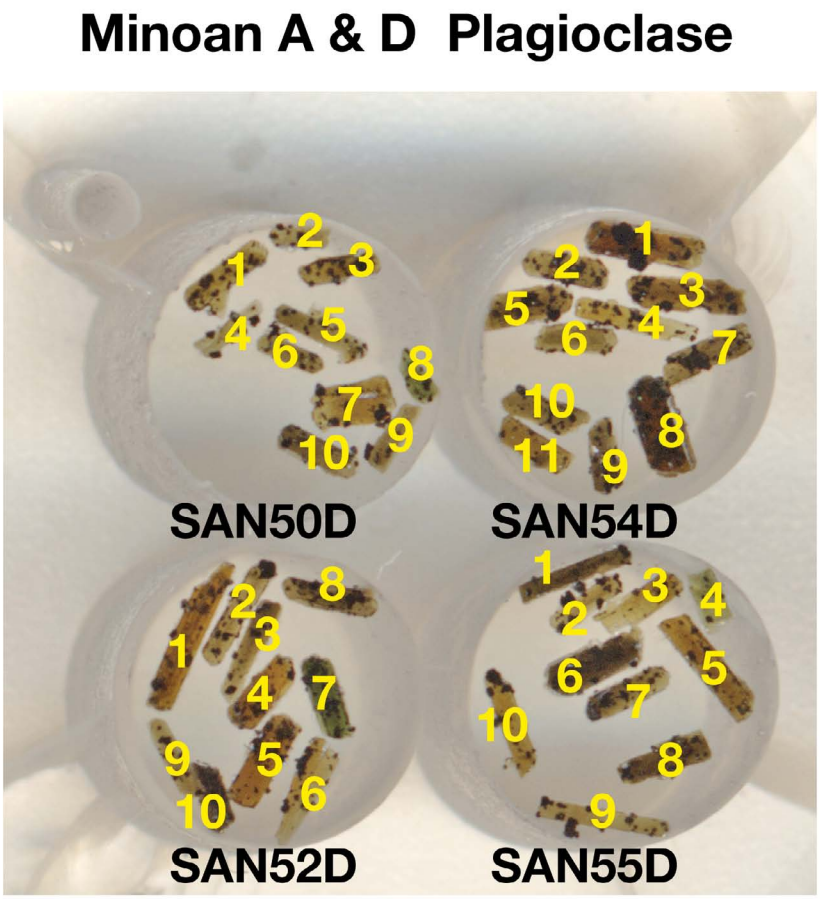


Fig. D.18. Sample SAN55D: Brown crystals are opx grains and green crystals are cpx grains.

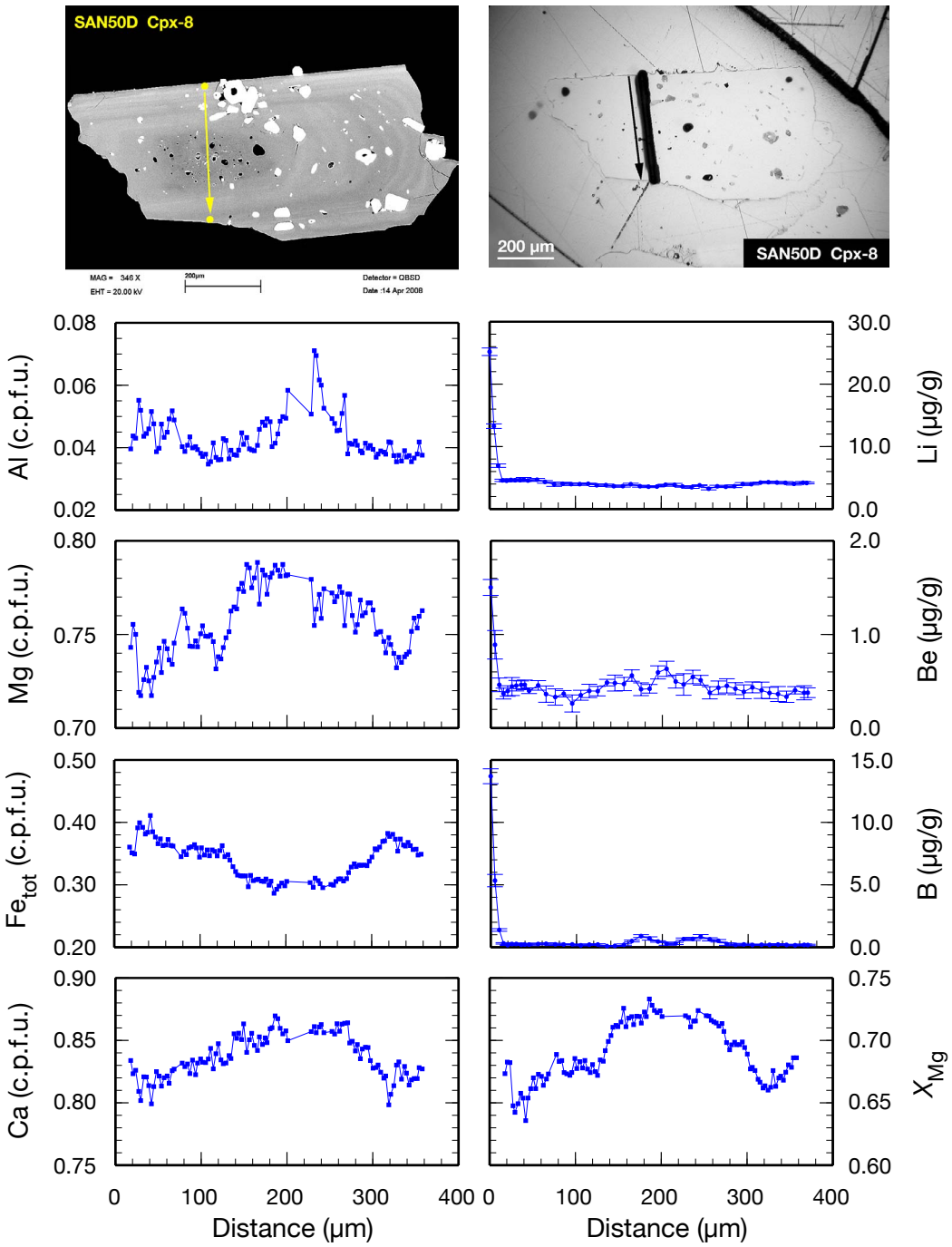


Fig. D.19. SAN50D: Cpx-8. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

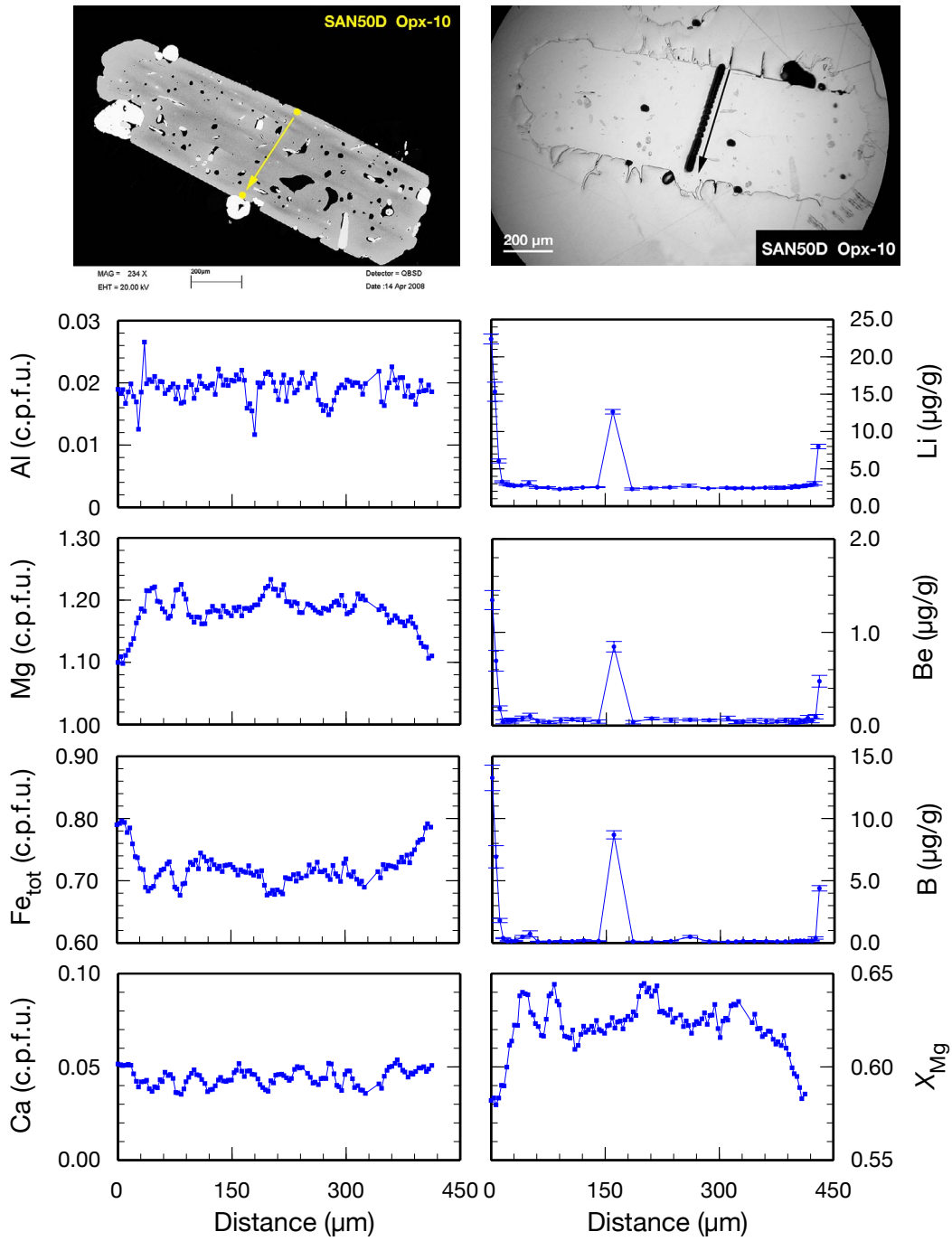


Fig. D.20. SAN50D: Opx-10. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

D.0.24. Overview – SAN51-1A

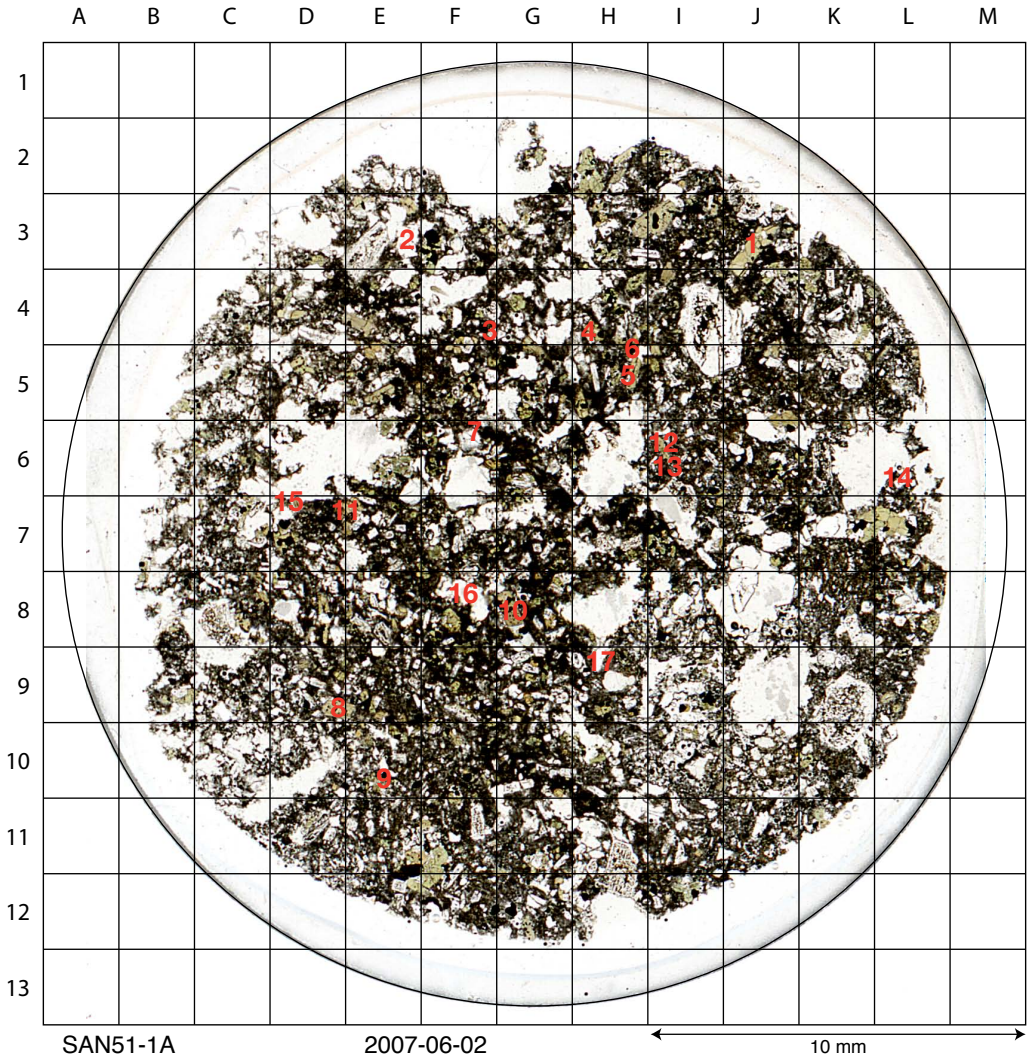


Fig. D.21. Scan of sample SAN51-1A

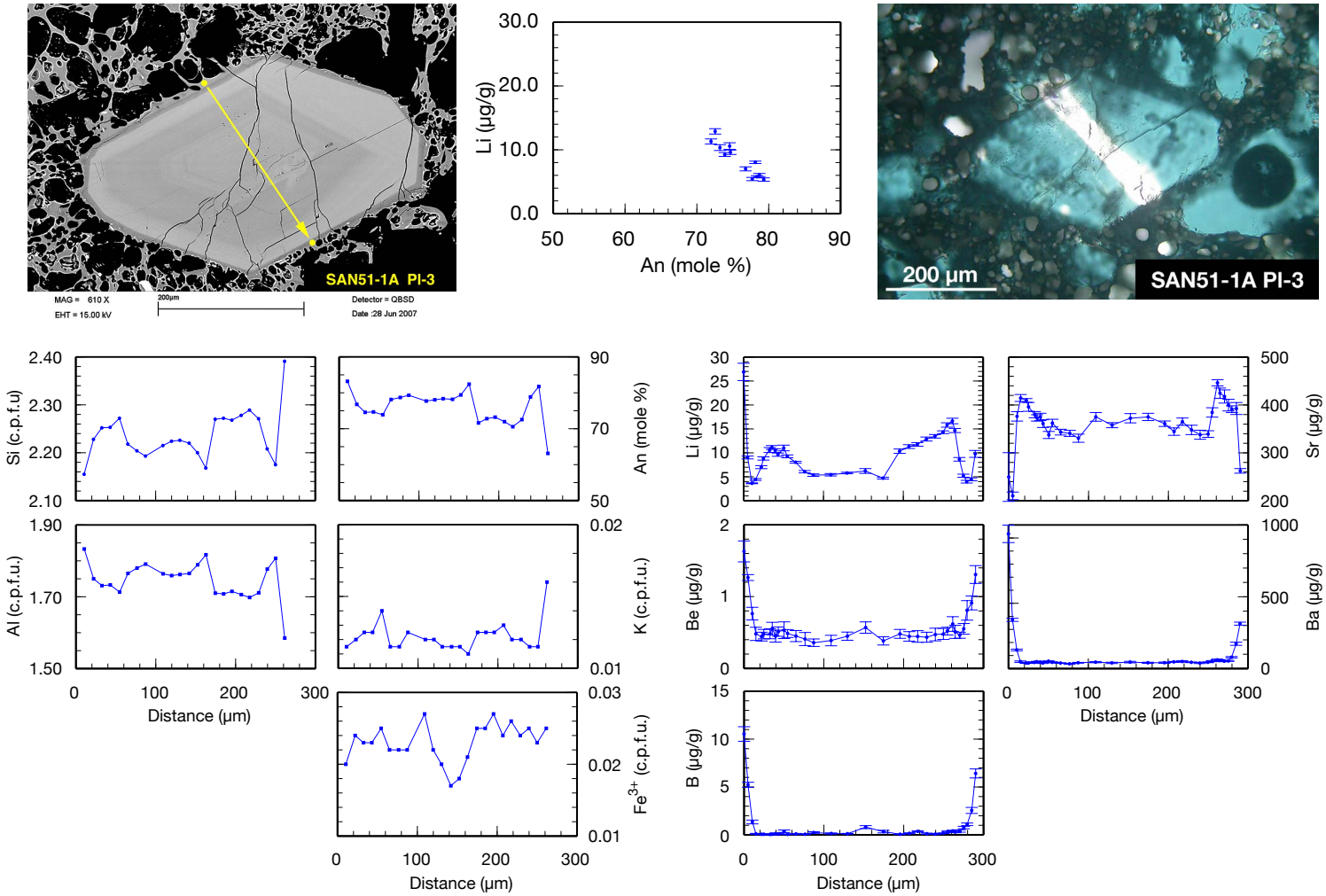


Fig. D.22. SAN51-1A: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

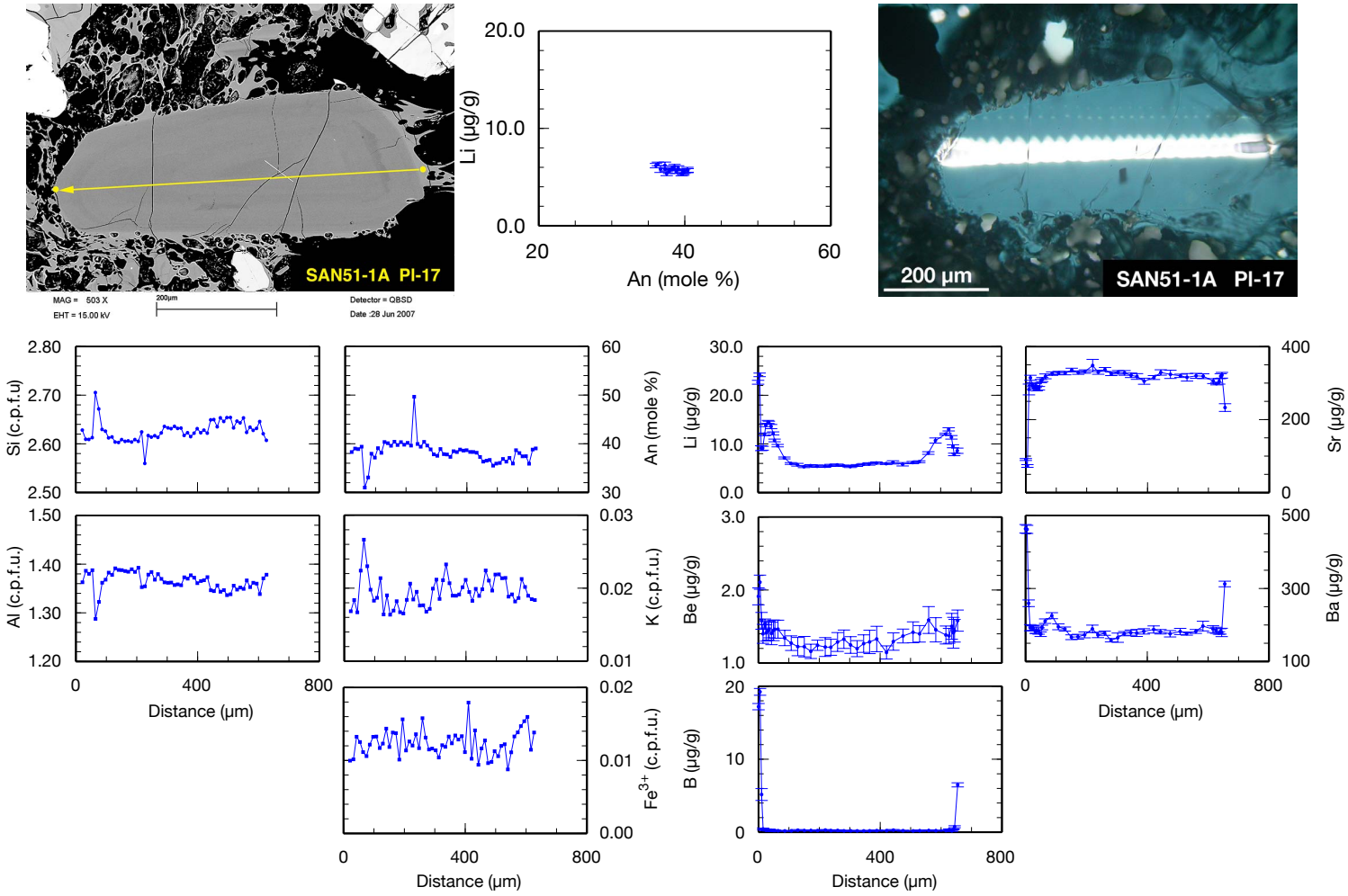


Fig. D.23. SAN51-1A: Pl-17. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

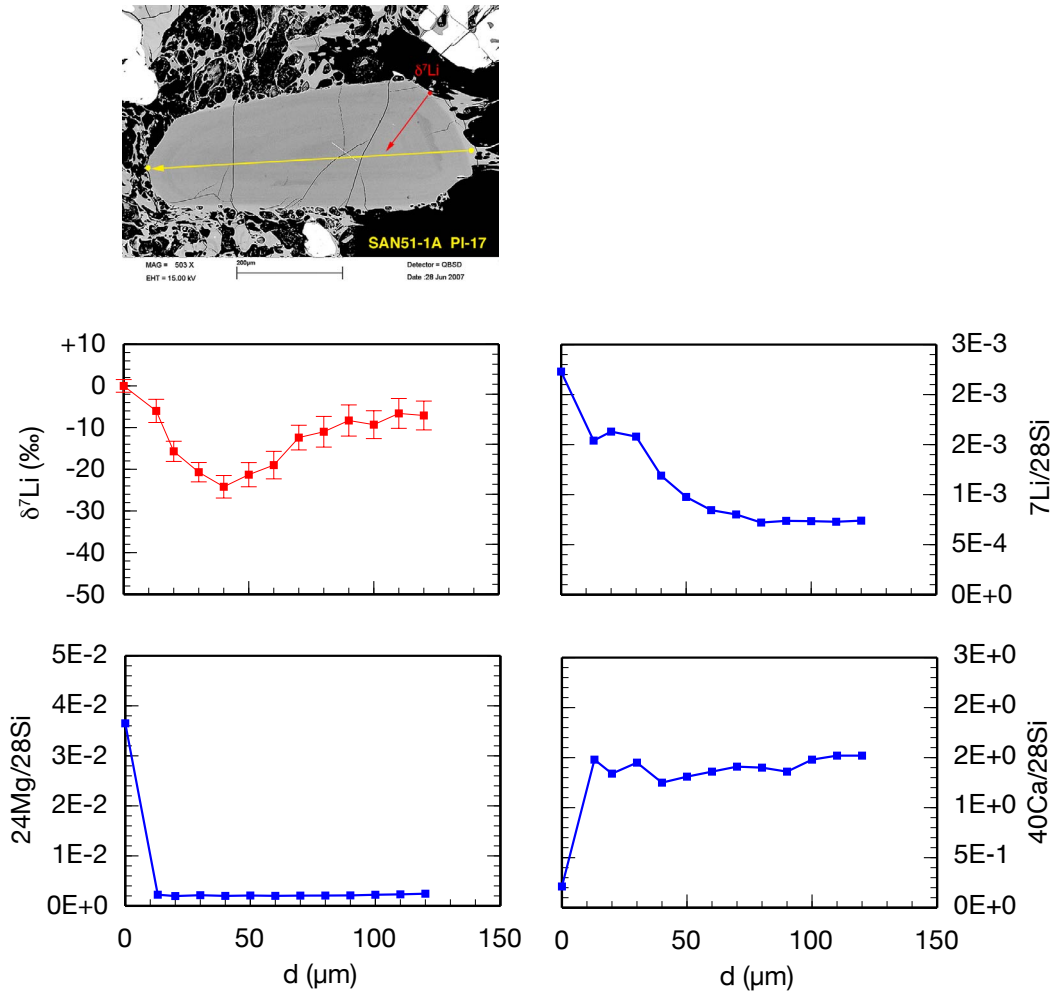


Fig. D.24. SAN51-1A: Pl-17. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

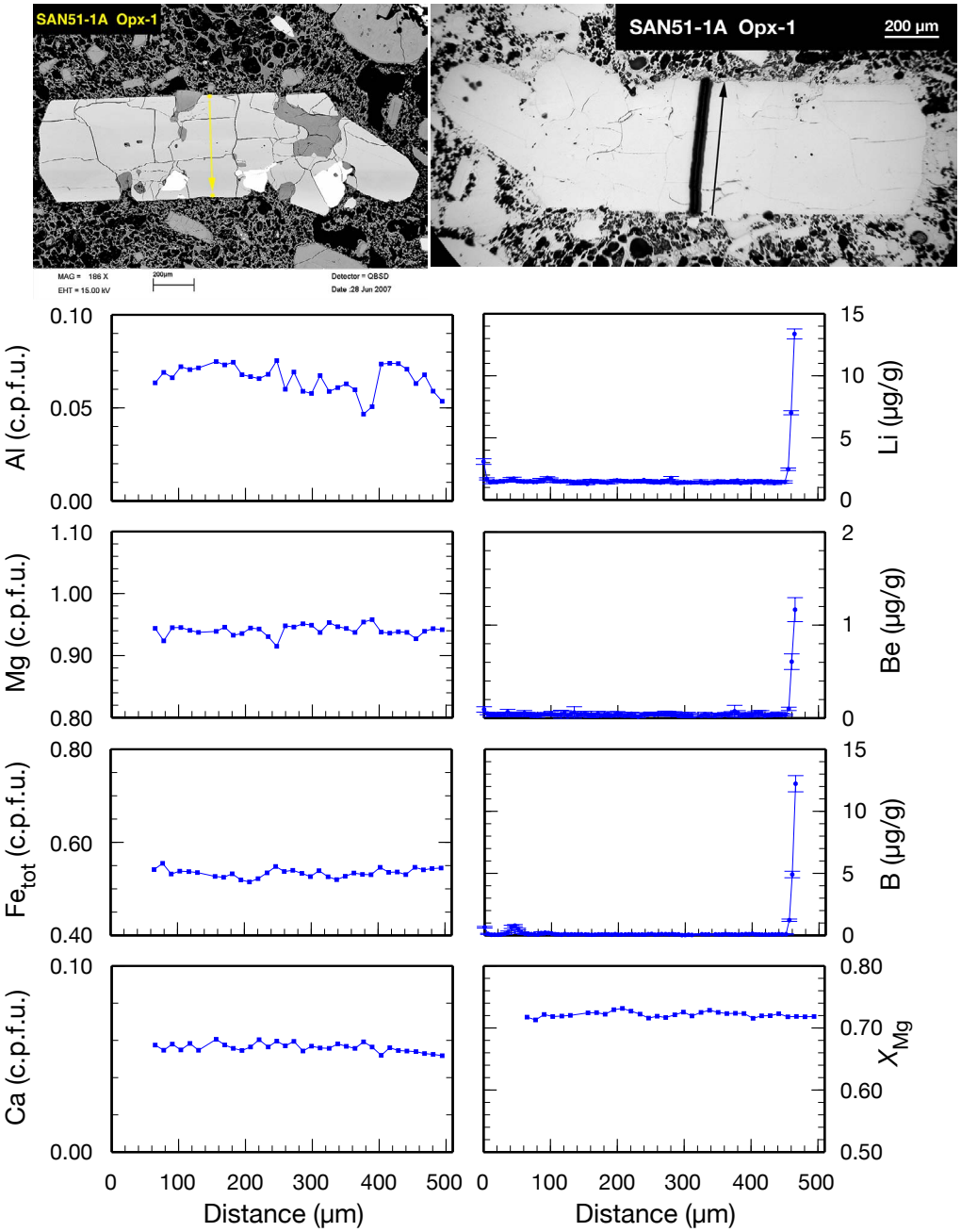
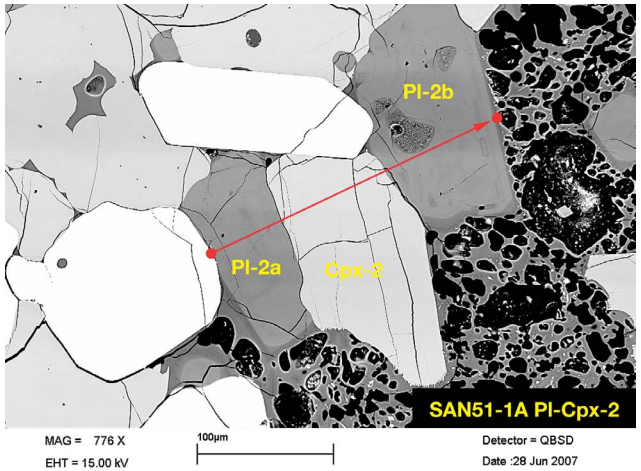
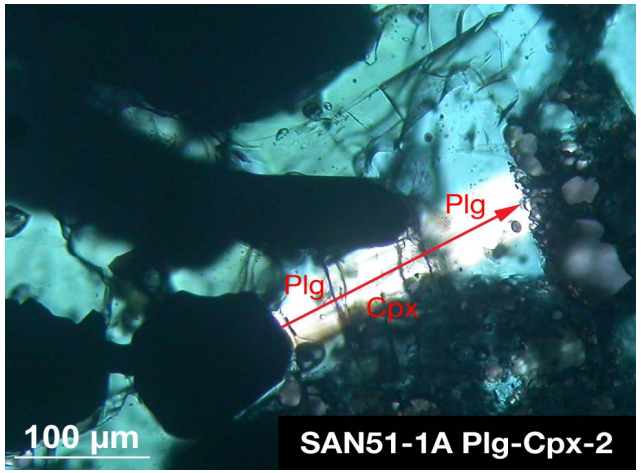


Fig. D.25. SAN51-1A: Opx-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.





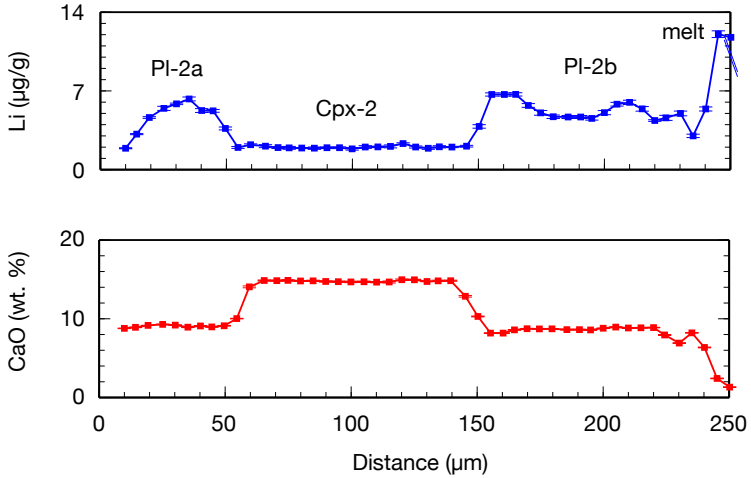
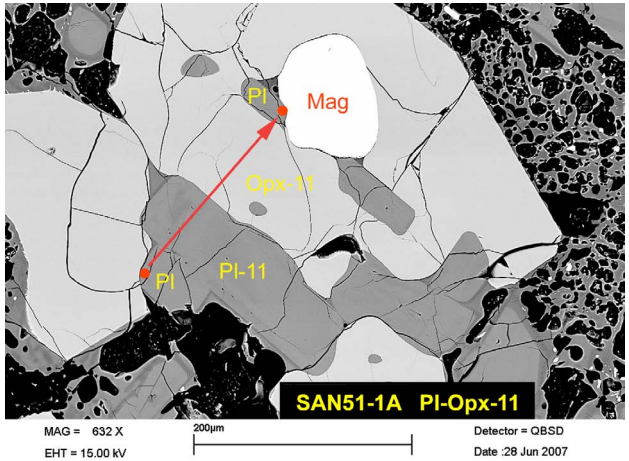
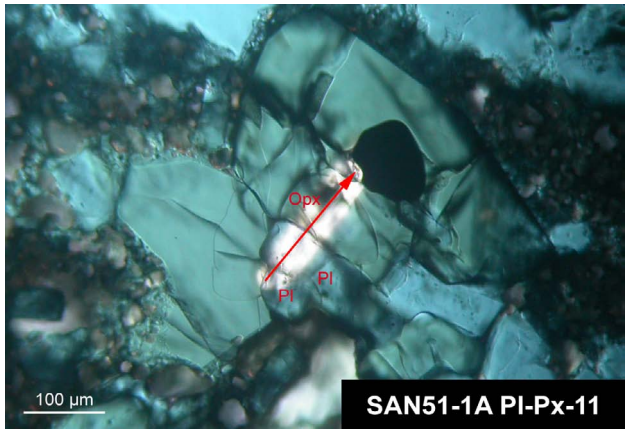


Fig. D.26. SAN51-1A: Pl-Cpx-2. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.





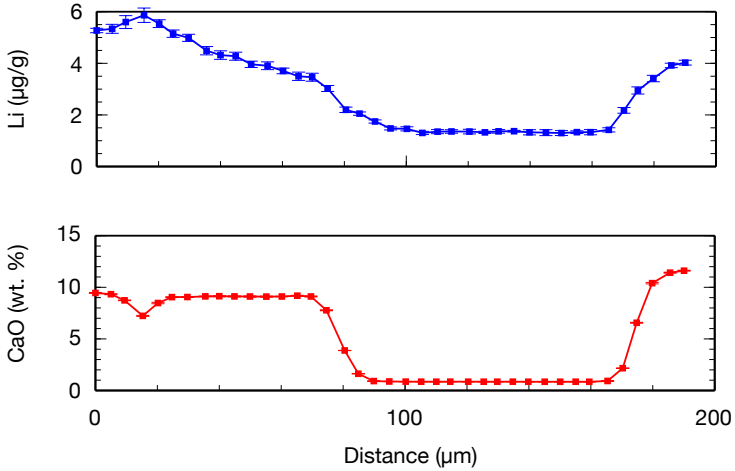


Fig. D.27. SAN51-1A: Pl-Cpx-11. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.

D.0.25. Overview – SAN51-1B

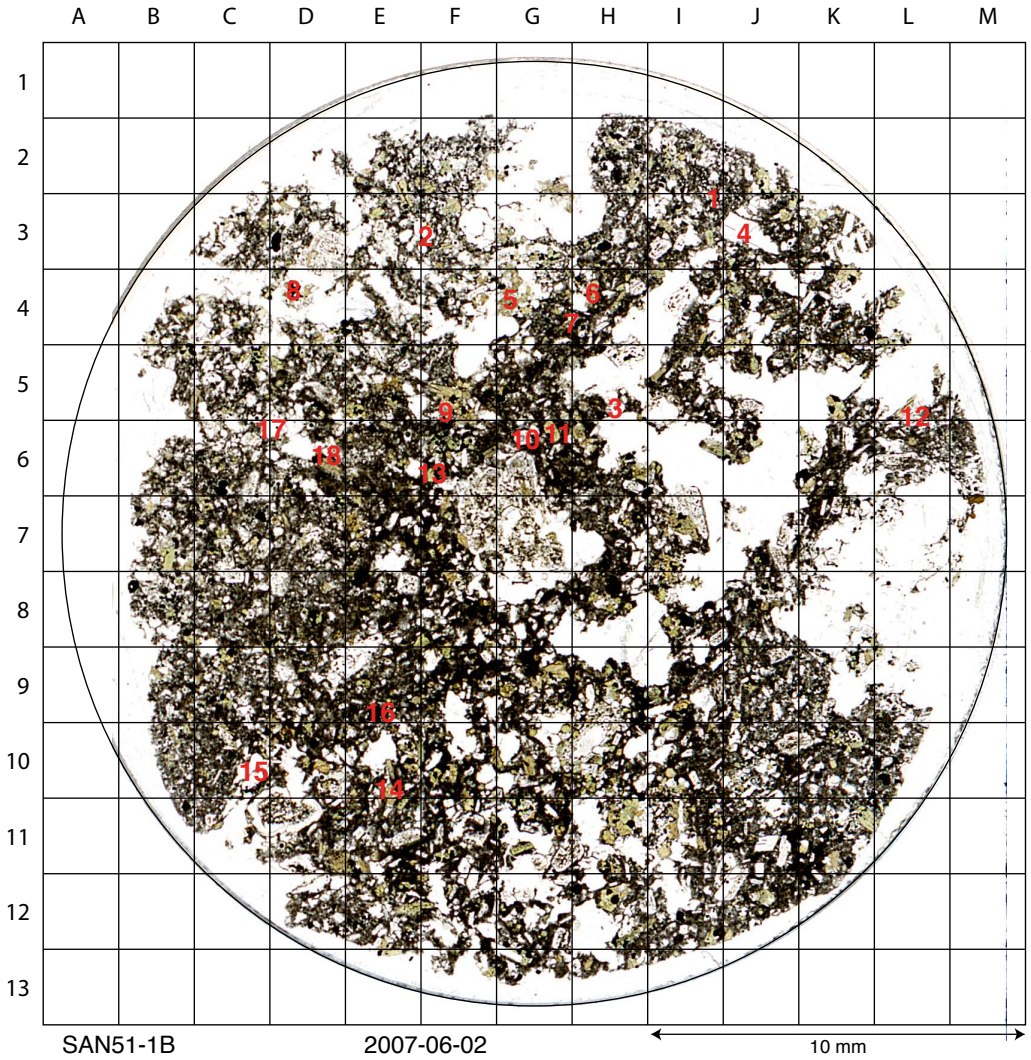


Fig. D.28. Scan of sample SAN51-1B.

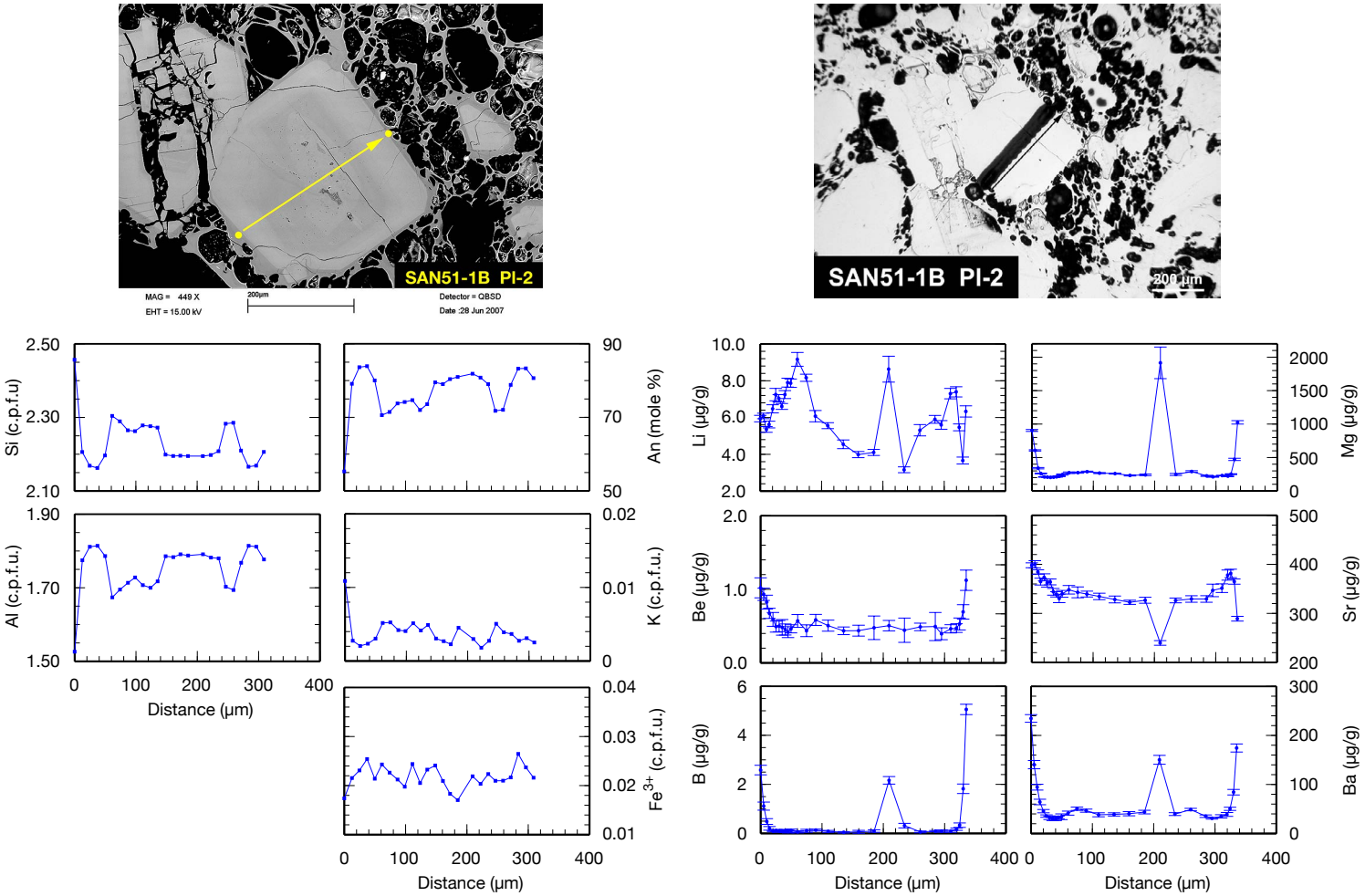


Fig. D.29. SAN51-1B: Pl-17. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

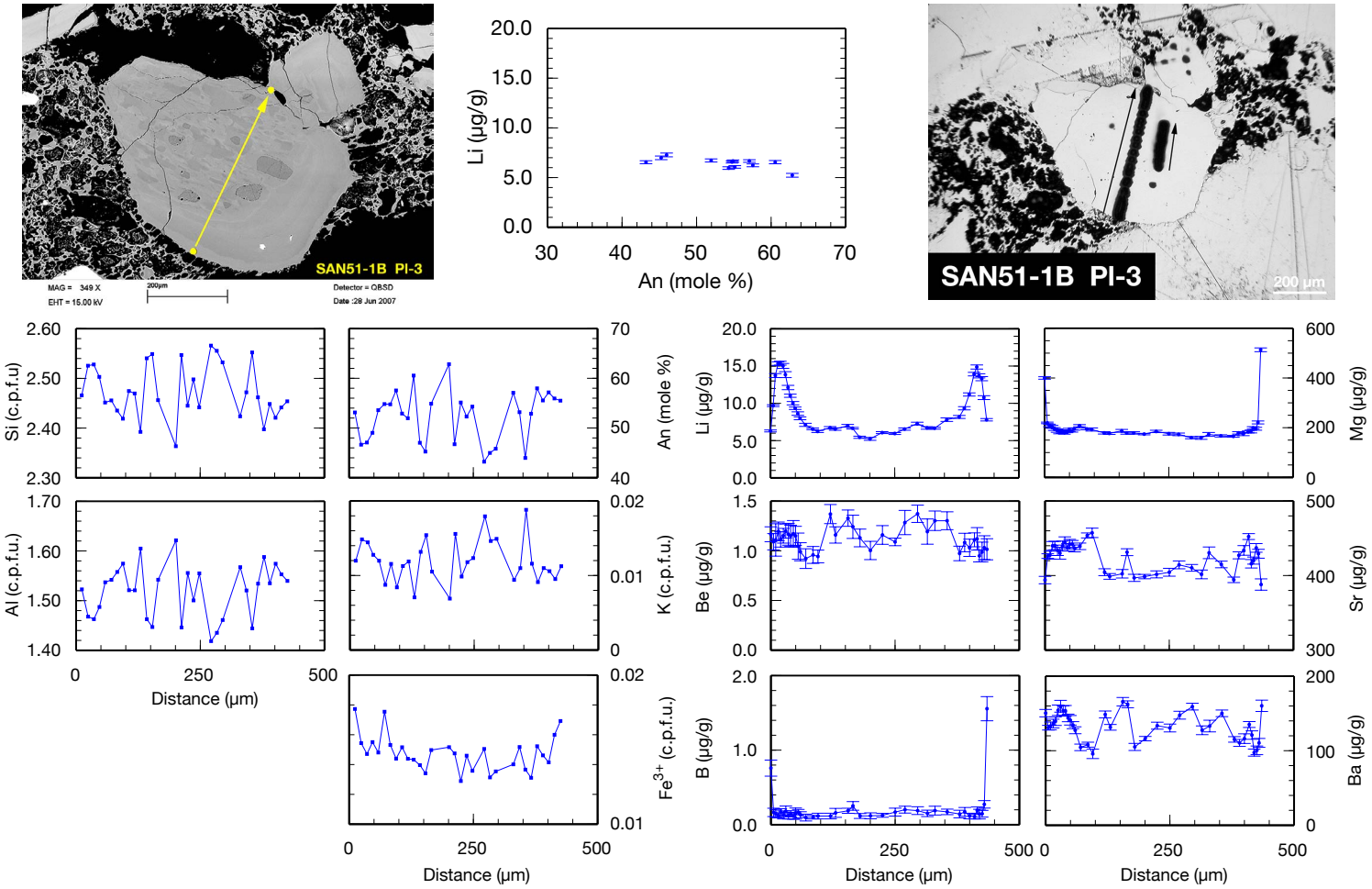


Fig. D.30. SAN51-1B: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

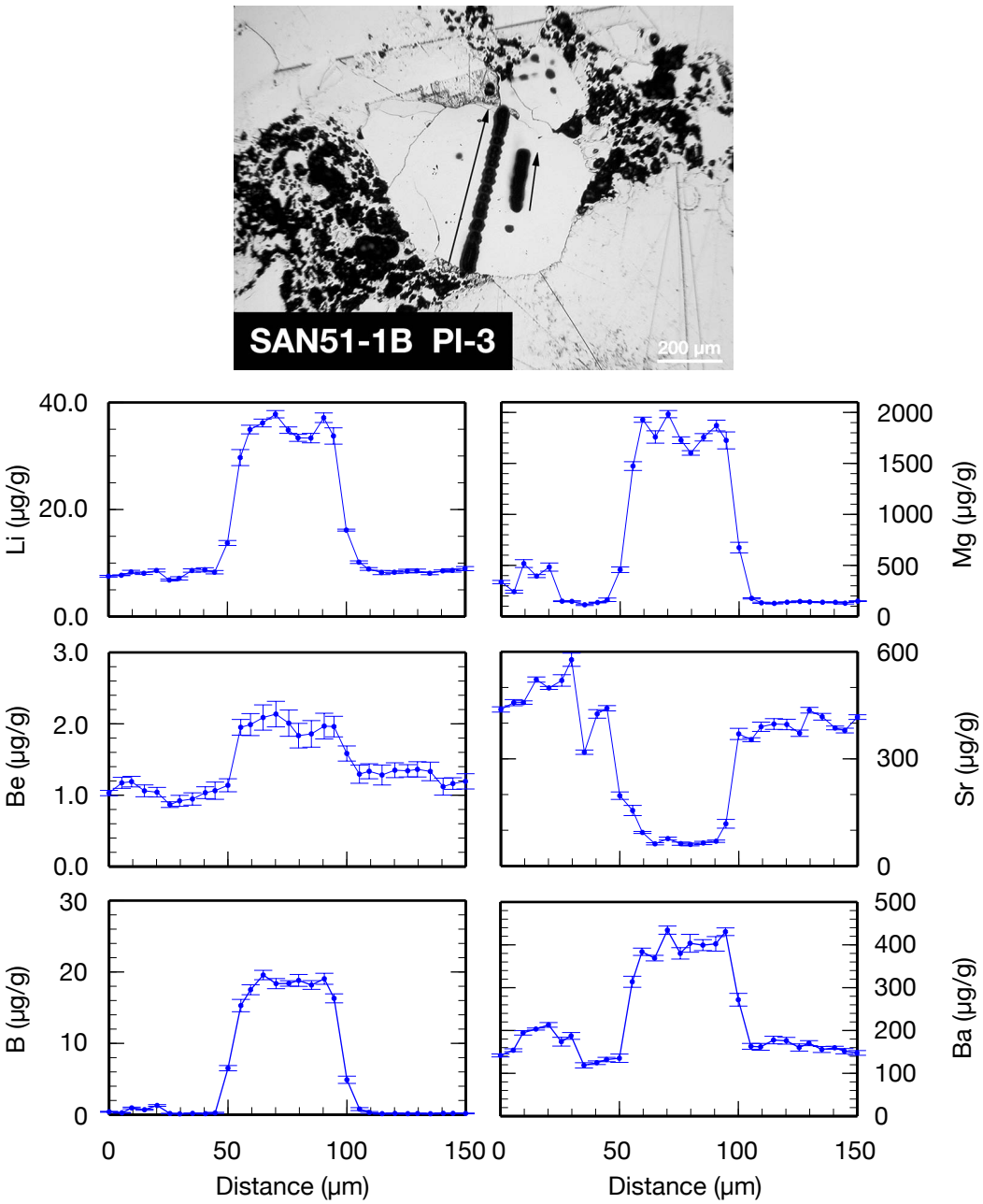


Fig. D.31. SAN51-1B: Pl-3. Profile through glass inlcusion.

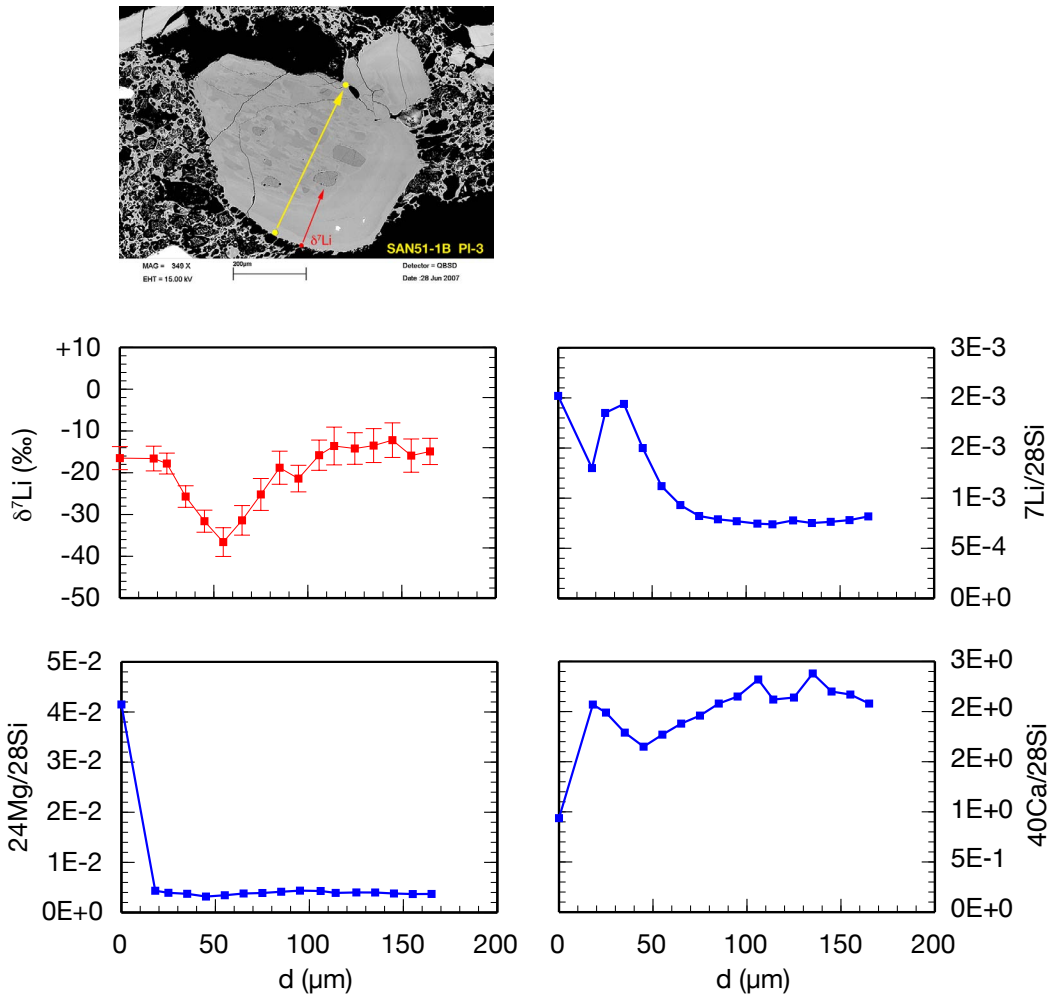


Fig. D.32. SAN51-1B: Pl-3. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

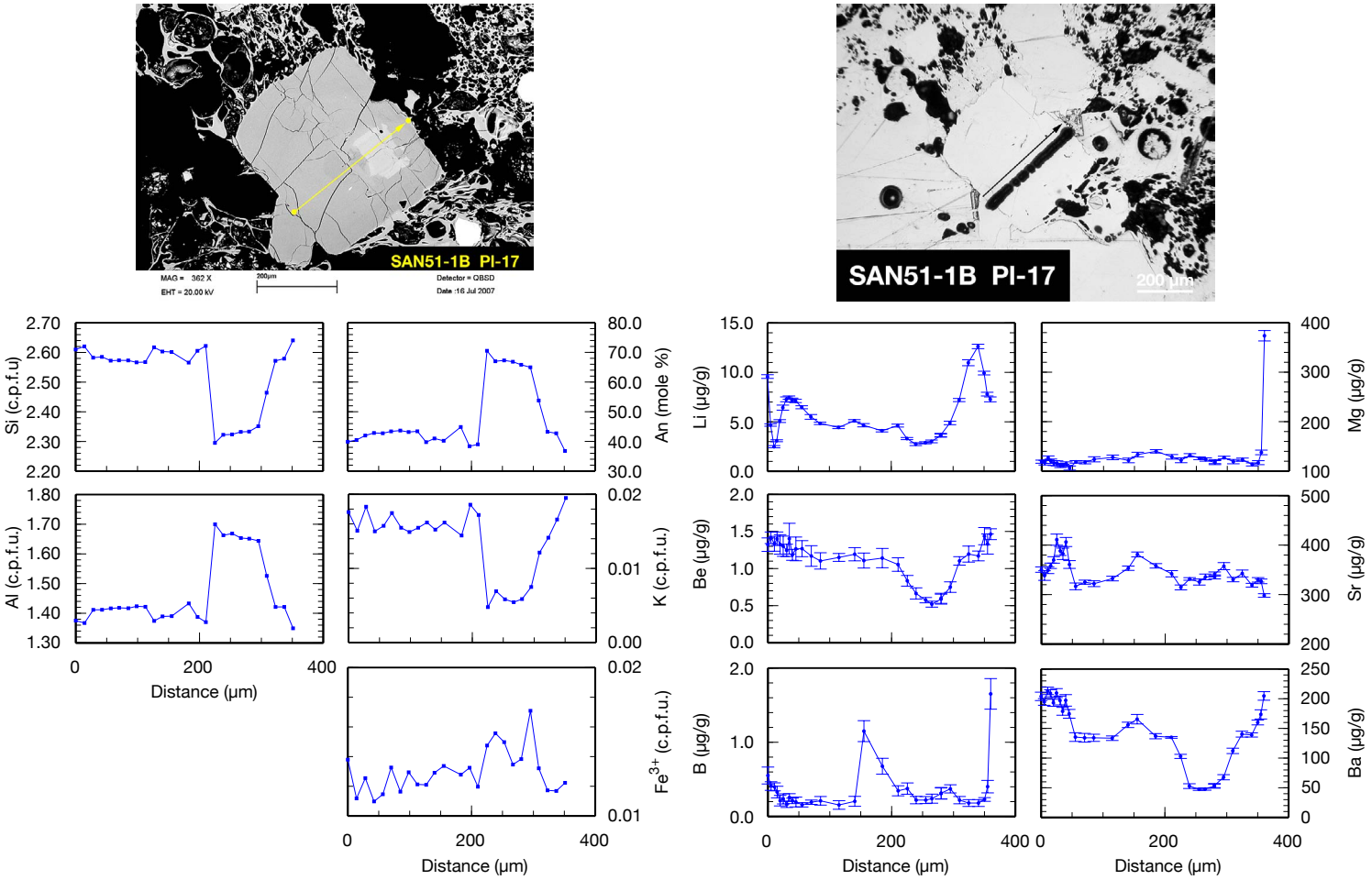


Fig. D.33. SAN51-1B: Pl-17. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

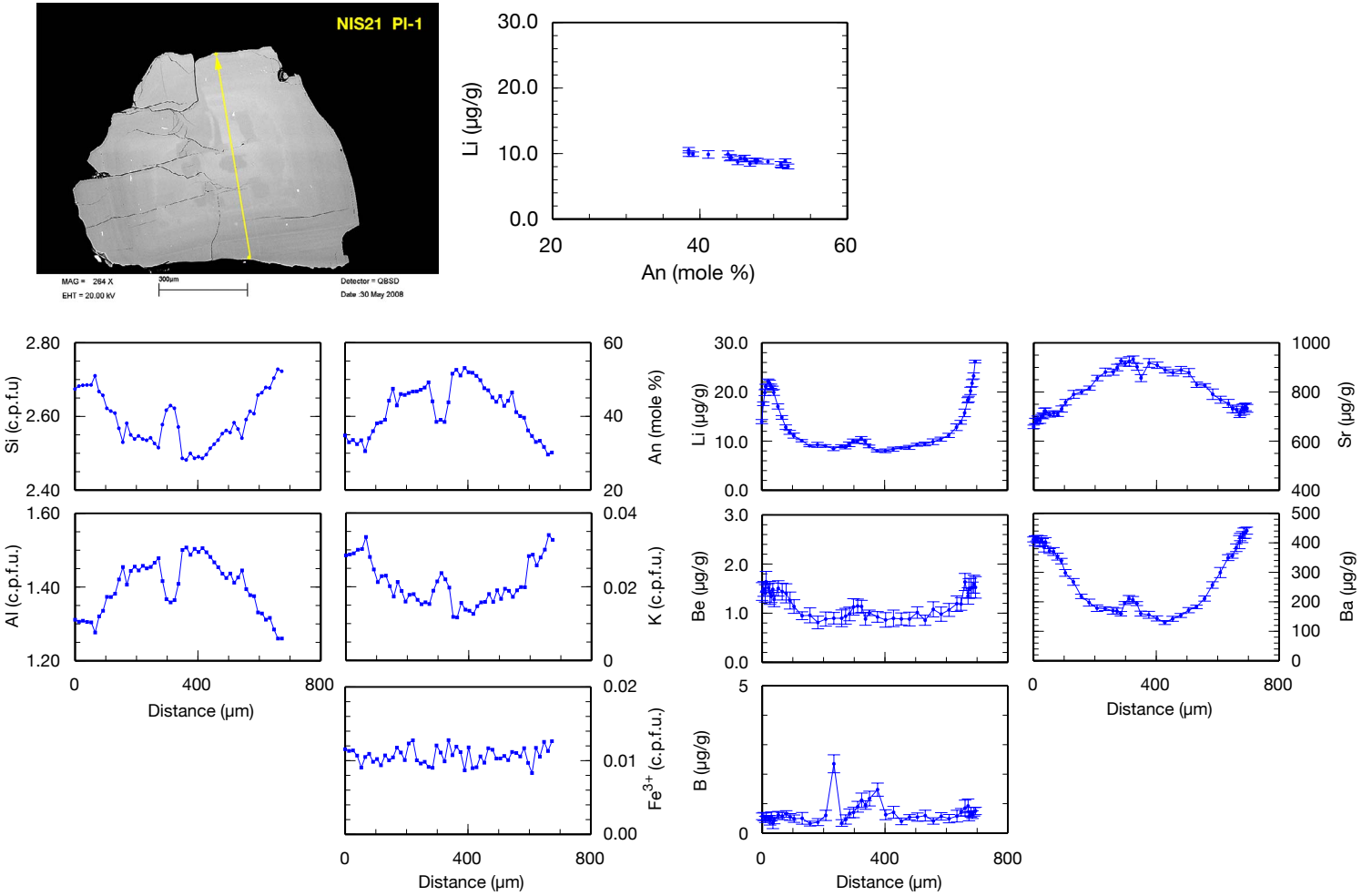


Fig. D.34. NIS21: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

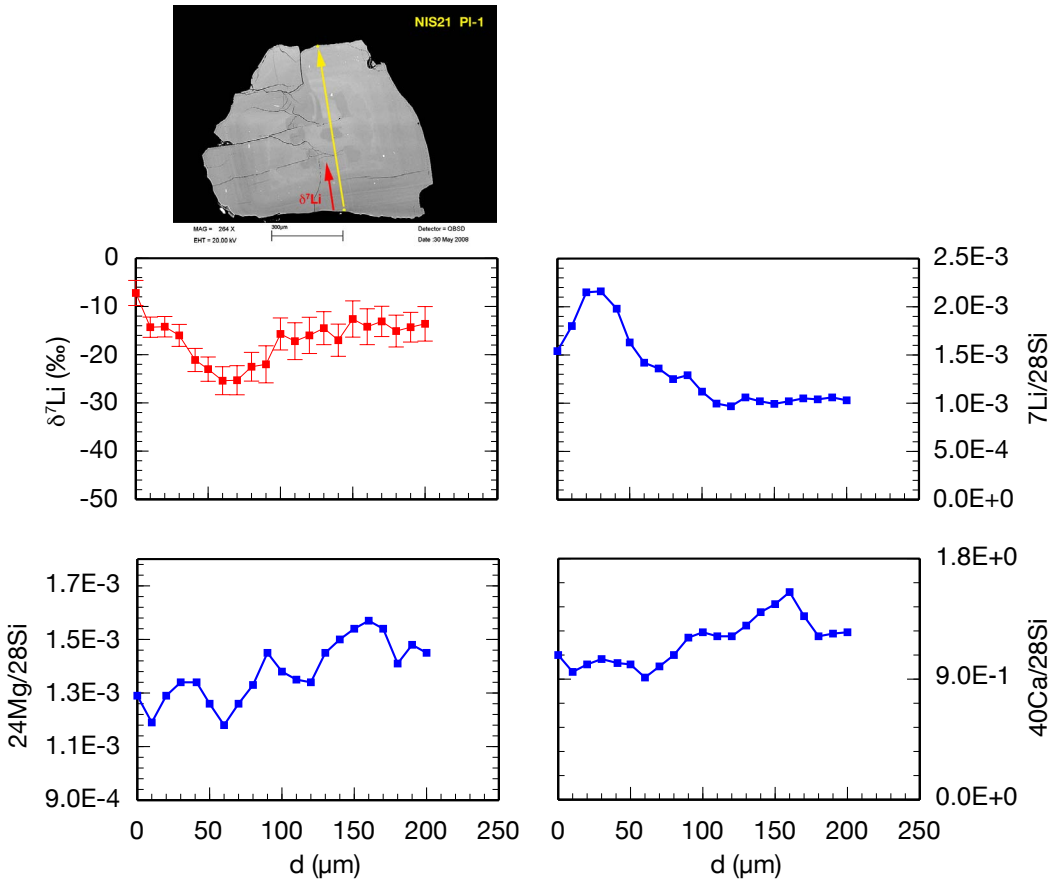


Fig. D.35. NIS21: Pl-1. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

E. Appendix – Scoria Clasts: SAN53 – SAN56 – SAN60

E.0.26. Overview – SAN53-1

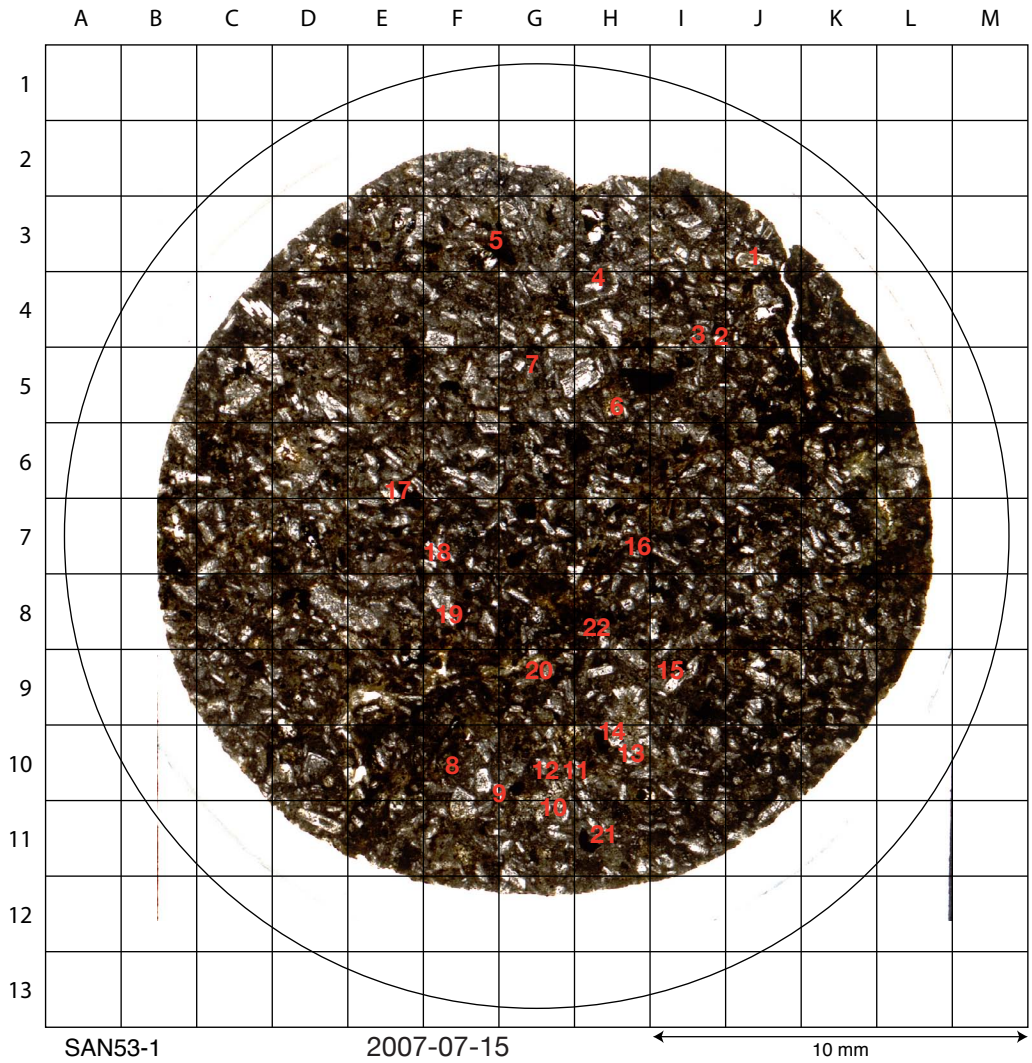


Fig. E.1. Scan of sample SAN53-1.

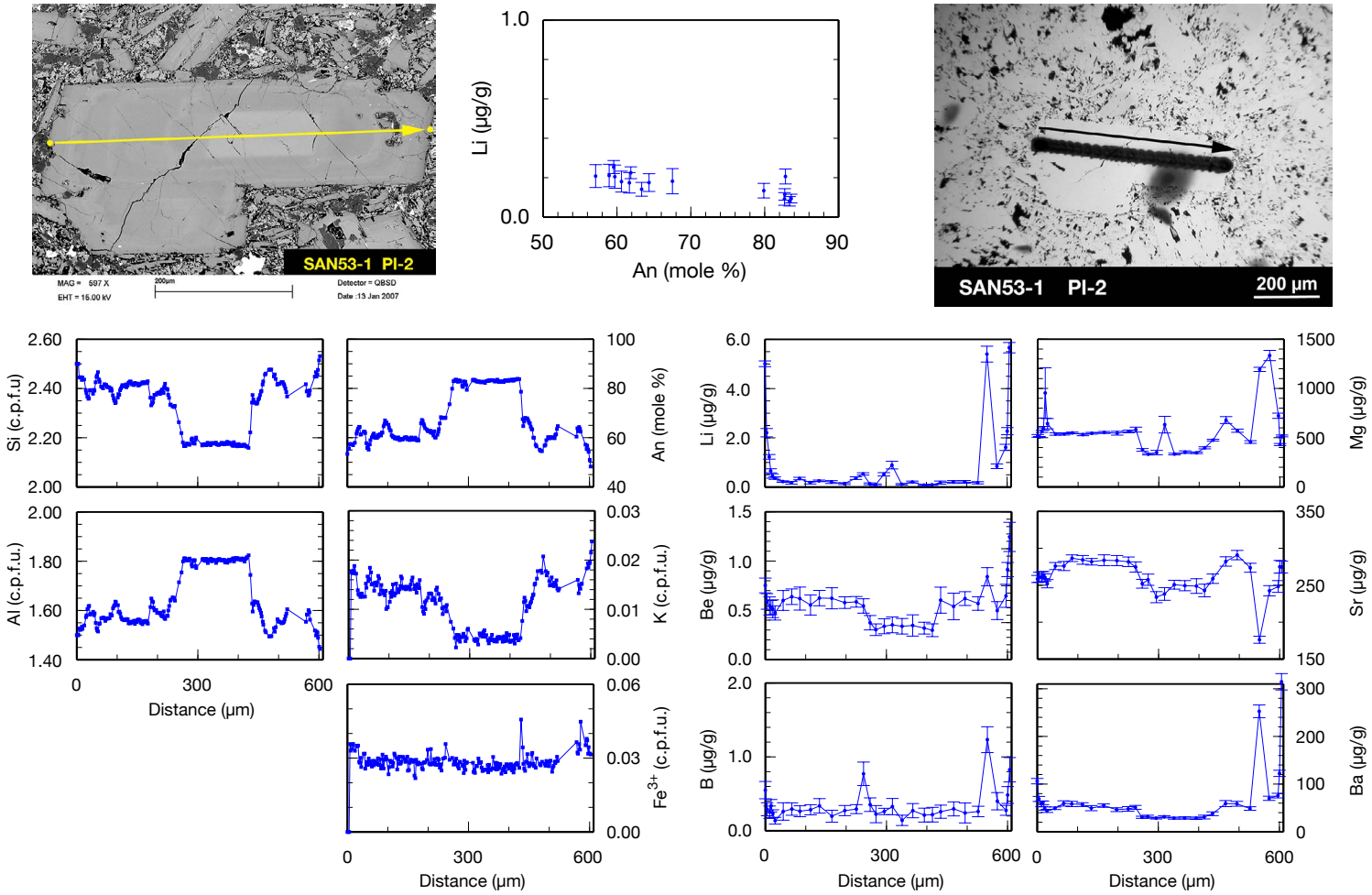


Fig. E.2. SAN53-1: Pl-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

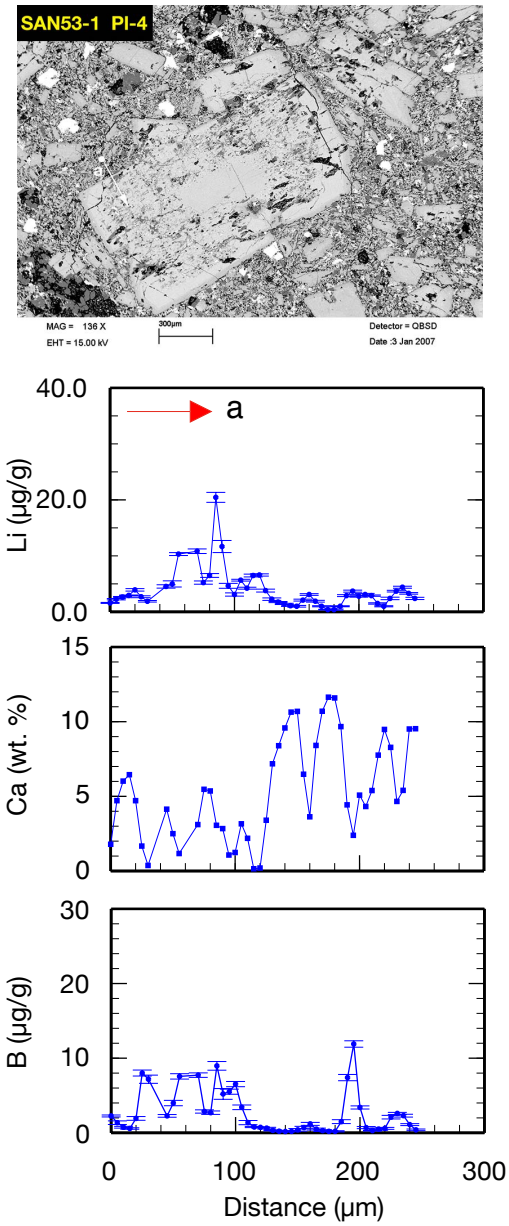


Fig. E.3. SAN53-1: Pl-4. A short SIMS profile was analyzed to detect Li concentrations in matrix adjacent to plagioclase.

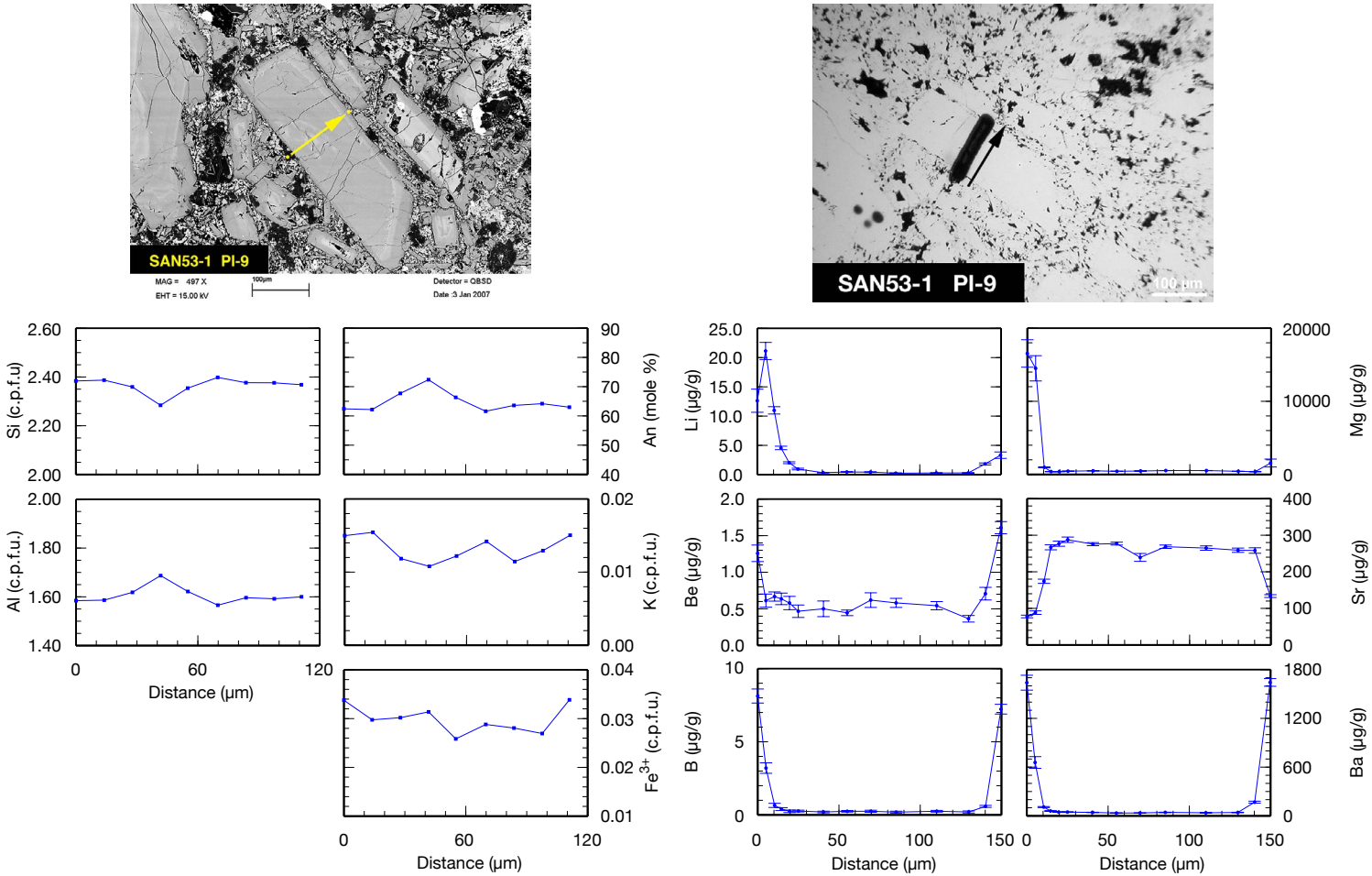


Fig. E.4. SAN53-1: Pl-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

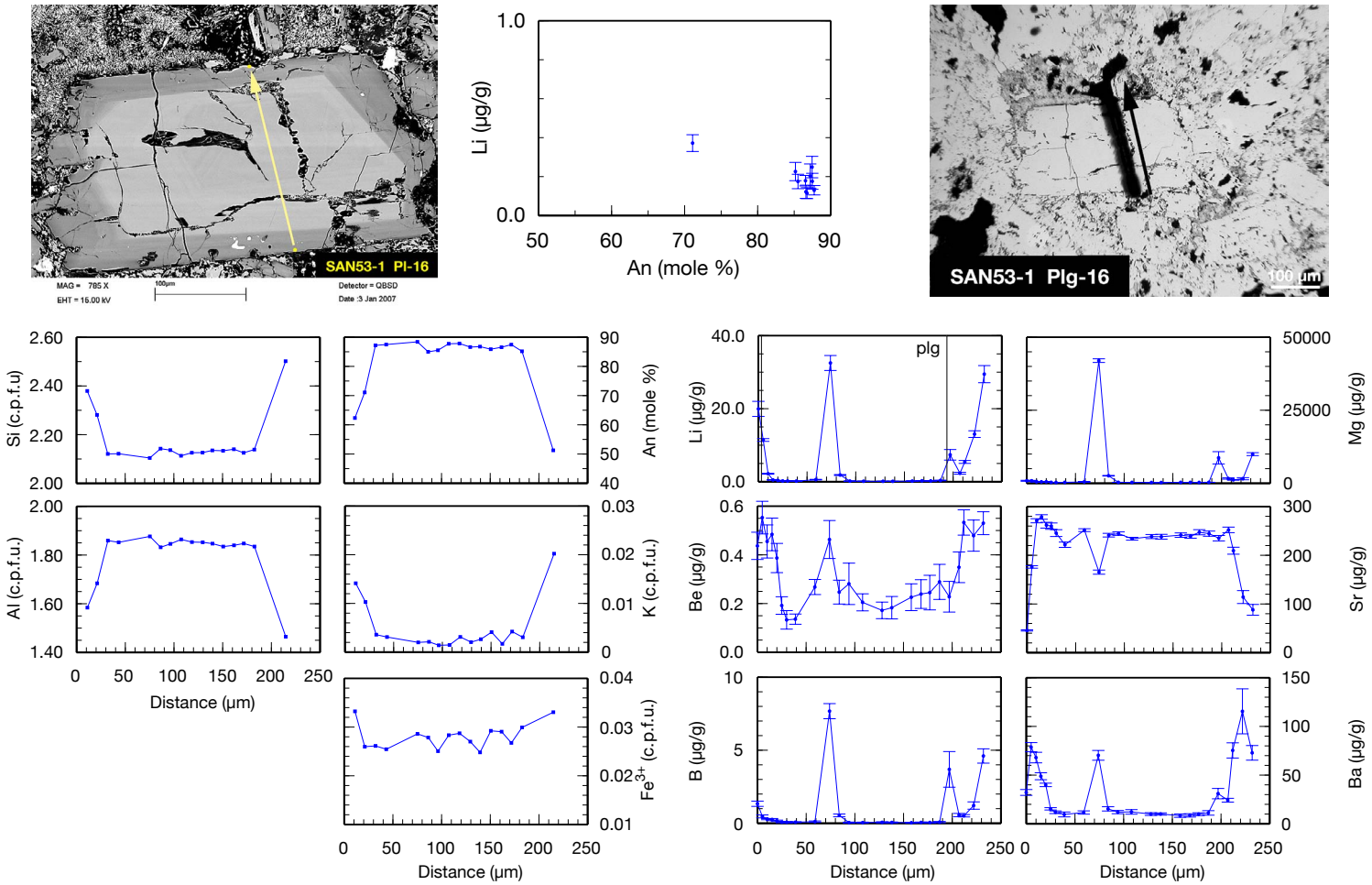


Fig. E.5. SAN53-1: Pl-16. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

E.0.27. Overview – SAN53-2

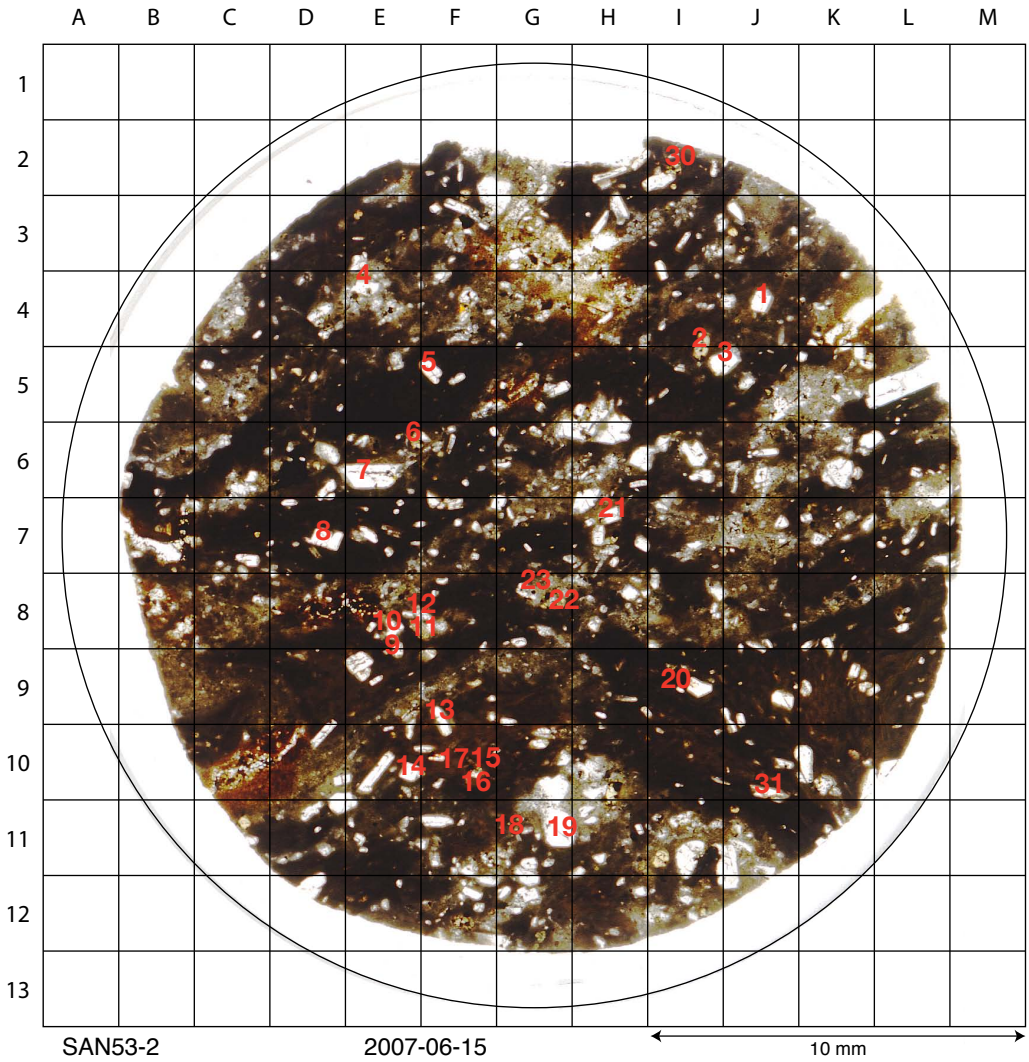


Fig. E.6. Scan of sample SAN53-2.

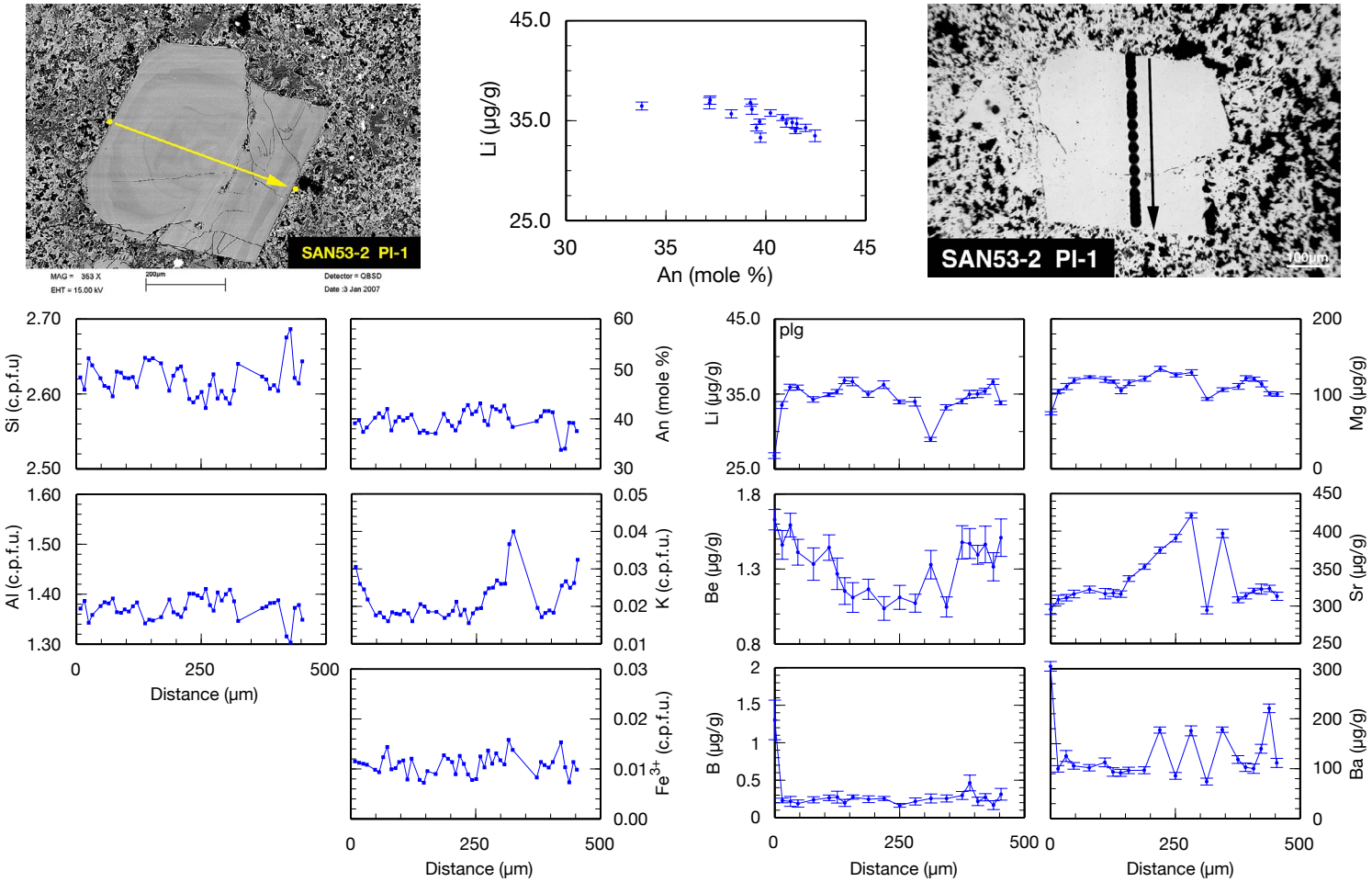


Fig. E.7. SAN53-2: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

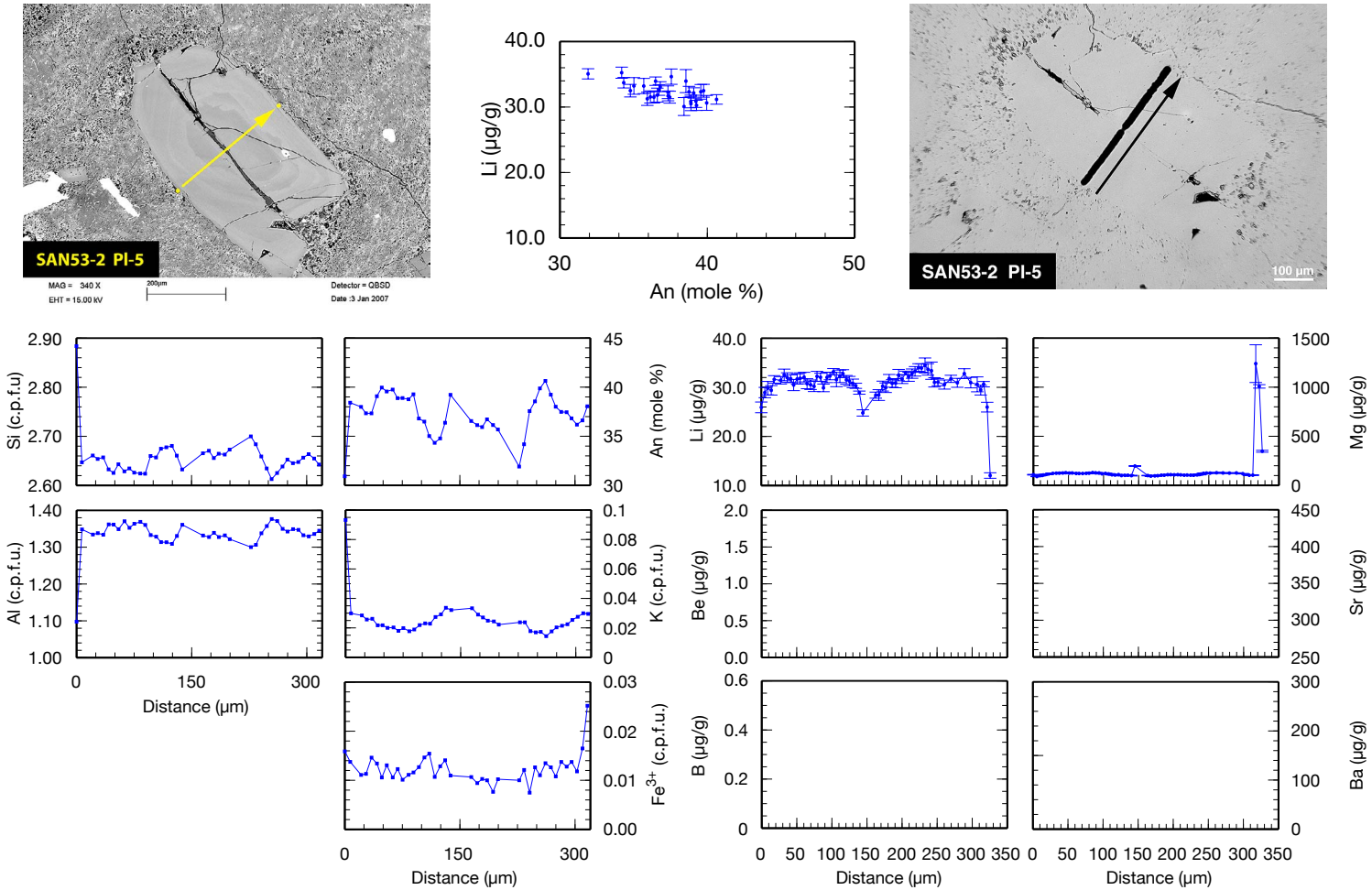


Fig. E.8. SAN53-2: Pl-5. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

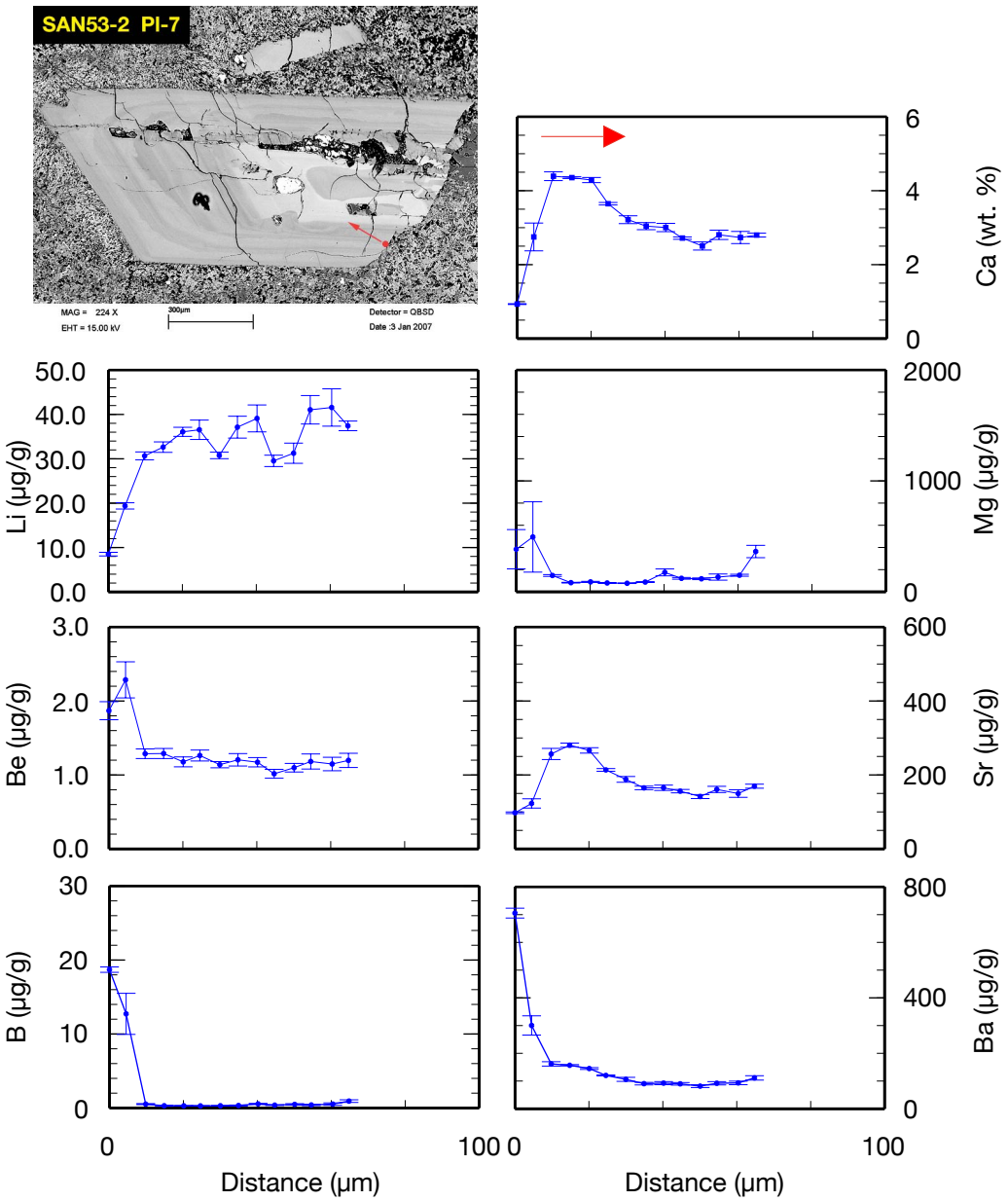


Fig. E.9. SAN53-2: Pl-7. A short SIMS profile was analyzed to detect or exclude Li diffusion from broken rims into plagioclase.

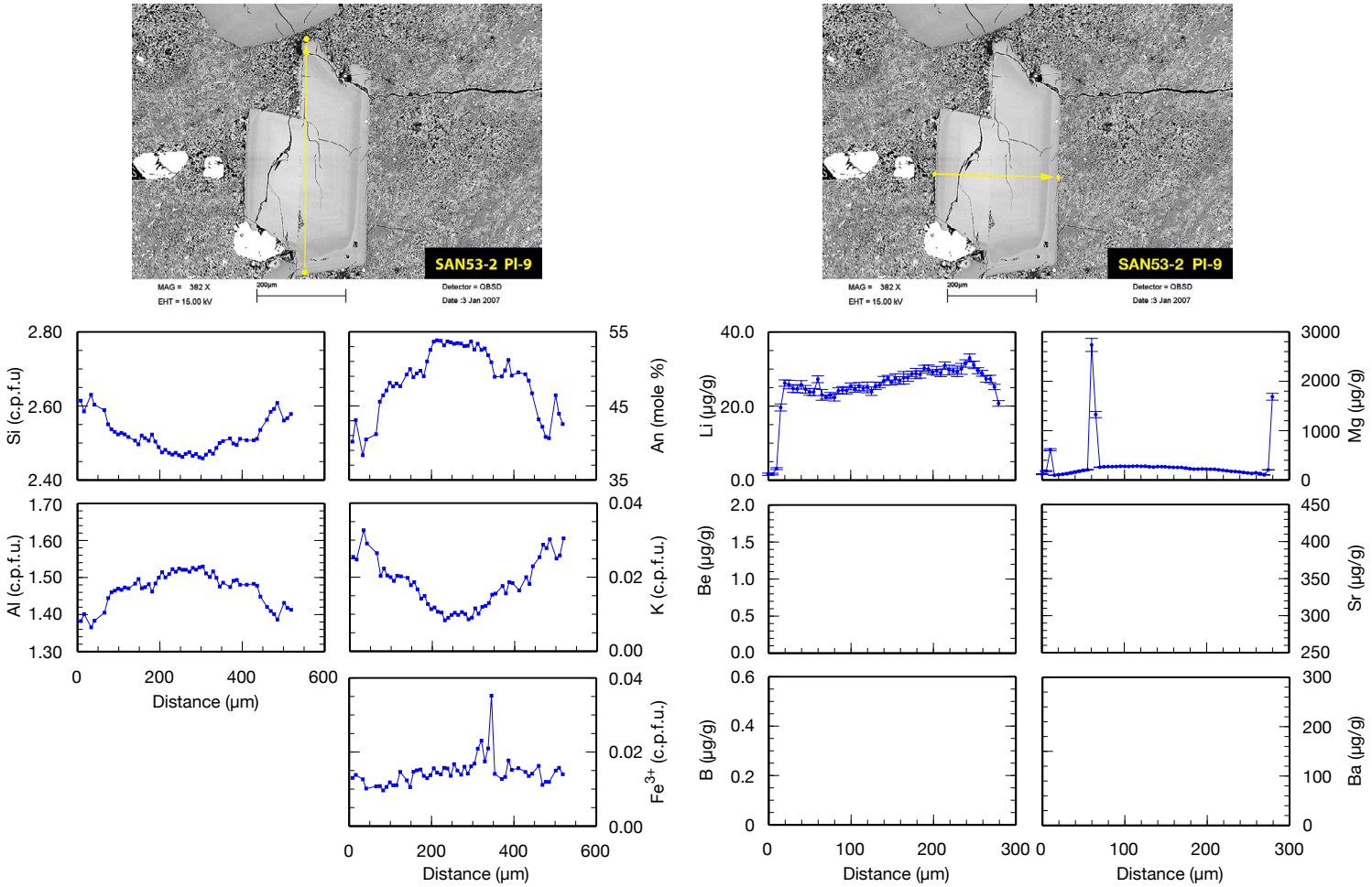


Fig. E.10. SAN53-2: Pl-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

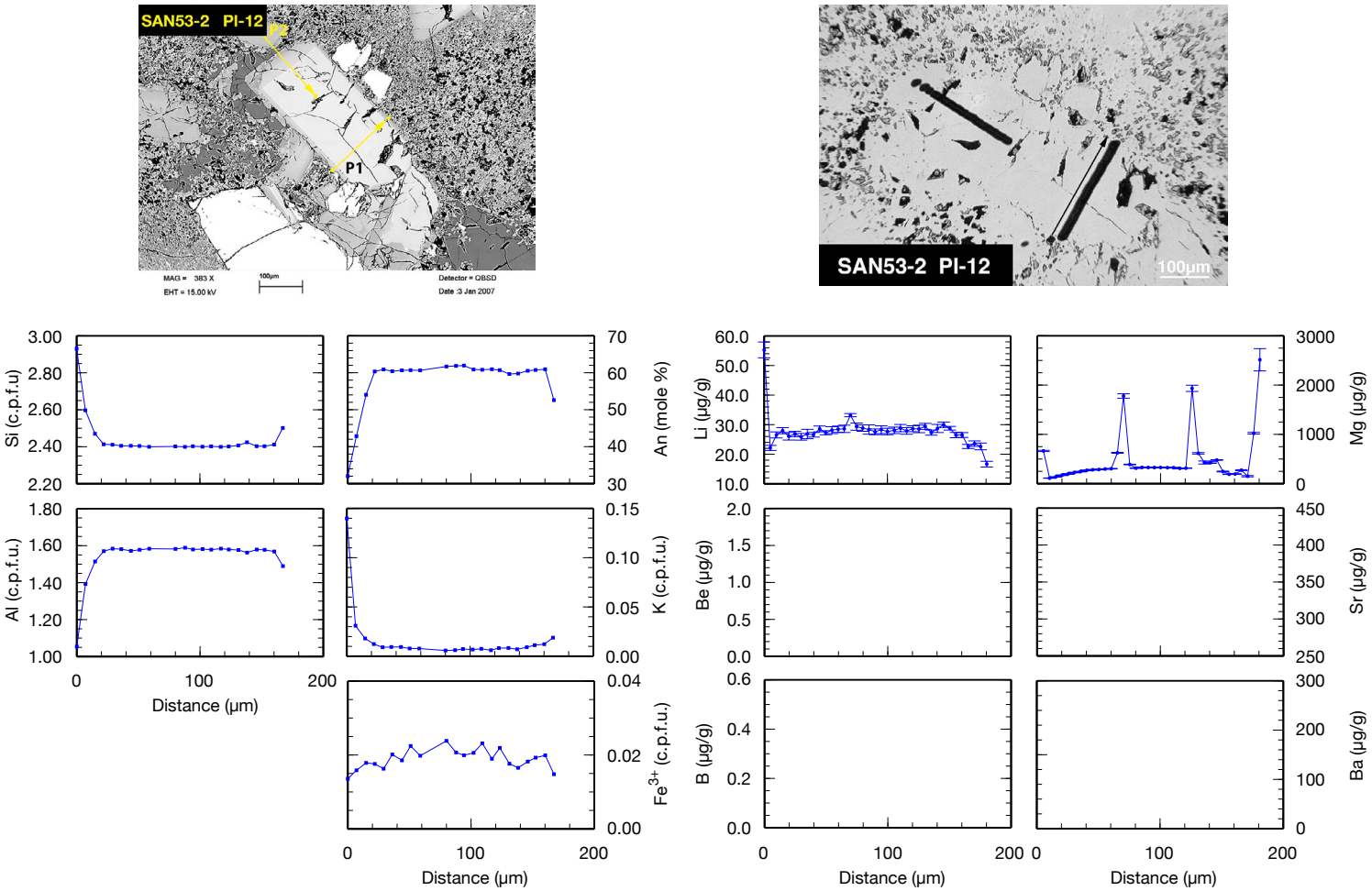


Fig. E.11. SAN53-2: Pl-12. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

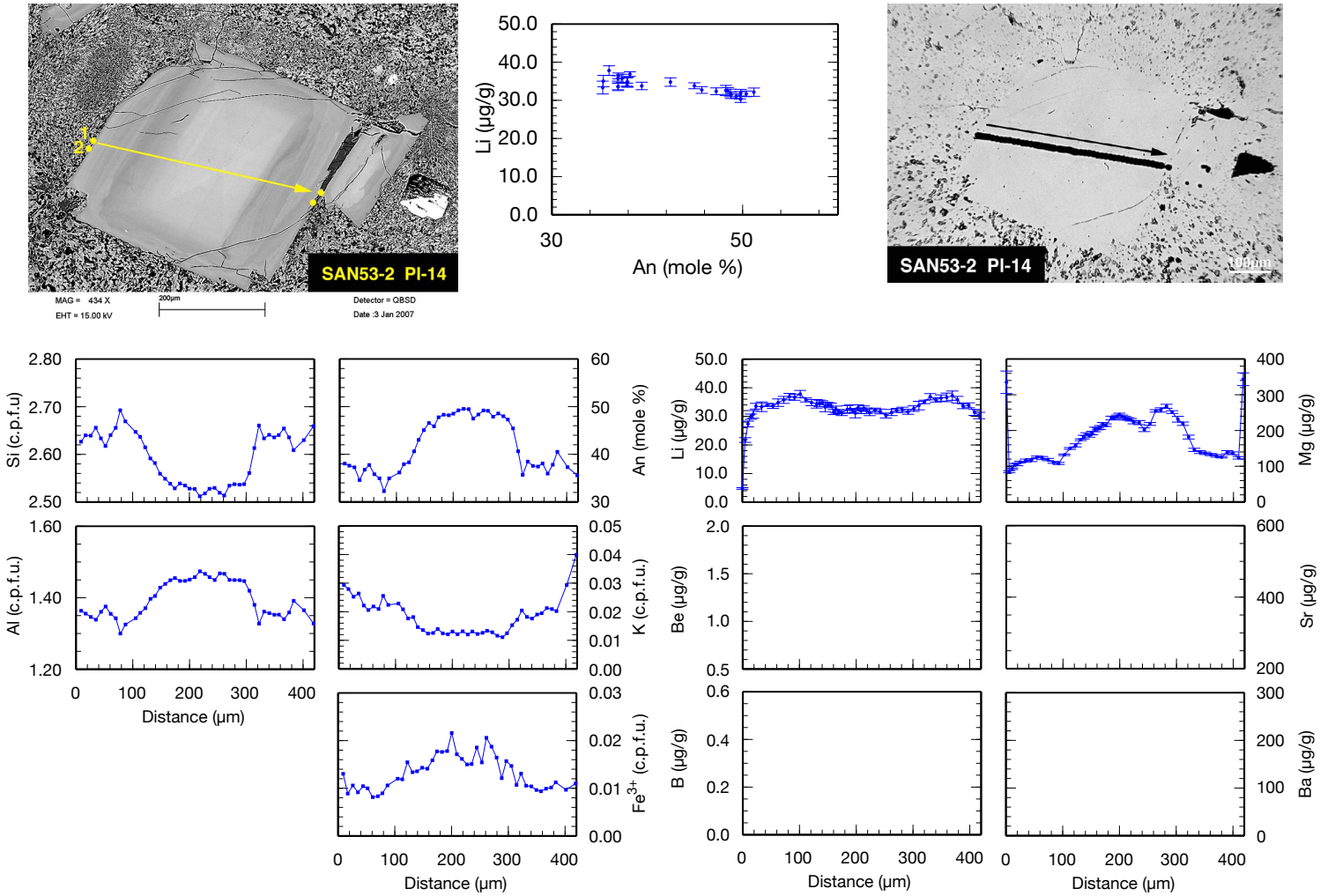


Fig. E.12. SAN53-2: Pl-14. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

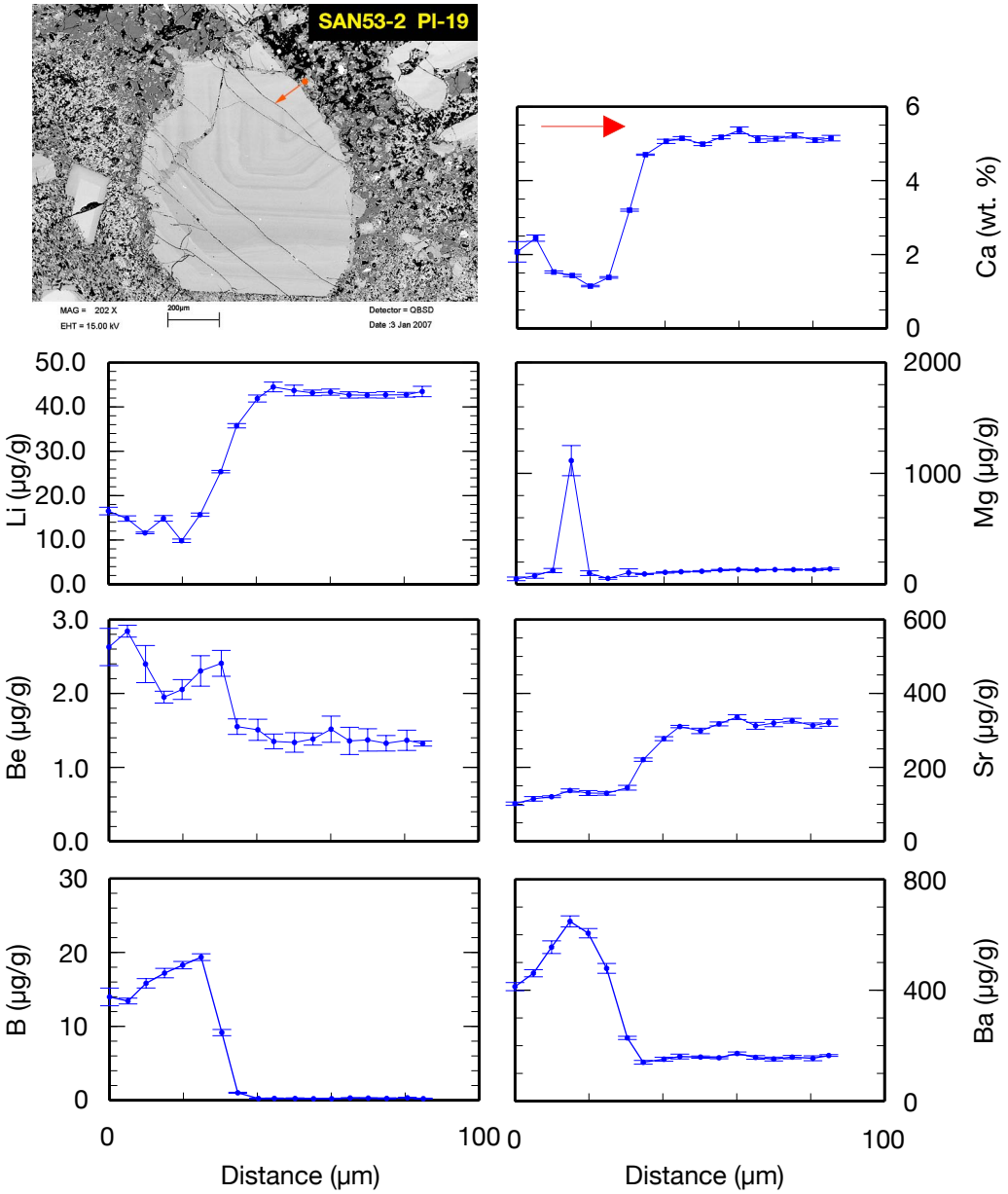


Fig. E.13. SAN53-2: Pl-19. A short SIMS profile was analyzed to detect or exclude Li diffusion from broken rims into plagioclase.

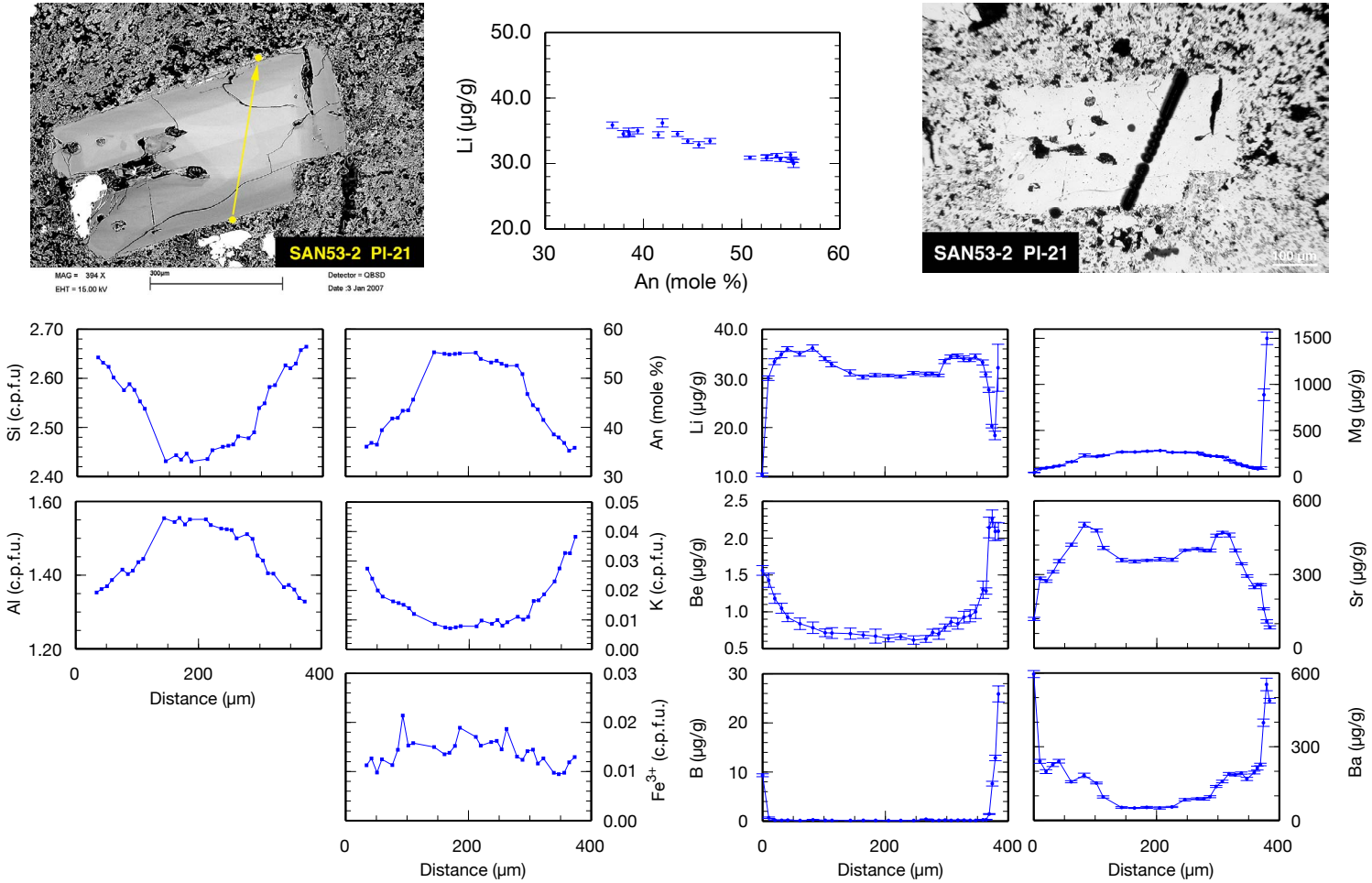


Fig. E.14. SAN53-2: Pl-21. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

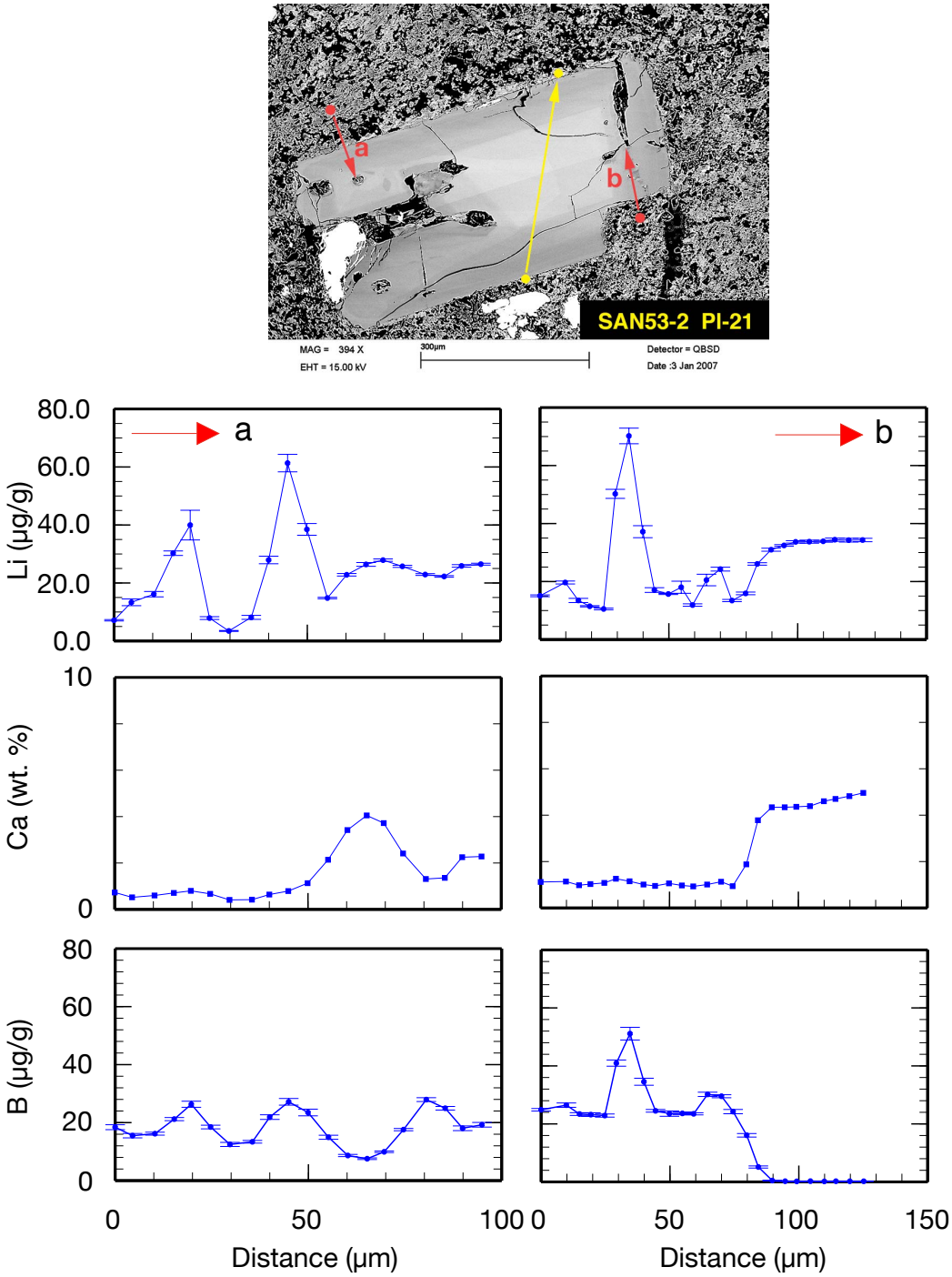


Fig. E.15. SAN53-2: Pl-21. A short SIMS profile was analyzed to detect Li concentrations in matrix adjacent to plagioclase.

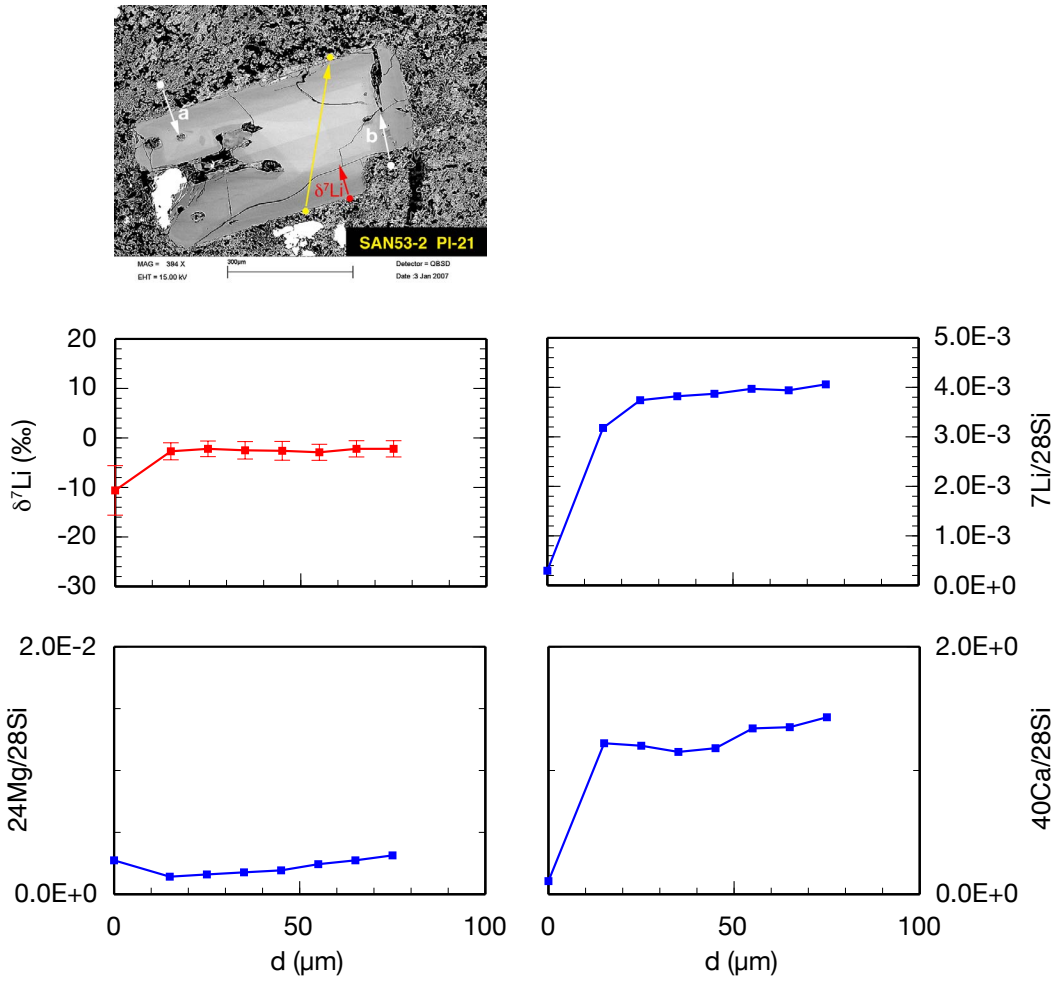


Fig. E.16. SAN53-2: Pl-21. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile; the white arrows mark the regular Li short profiles. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

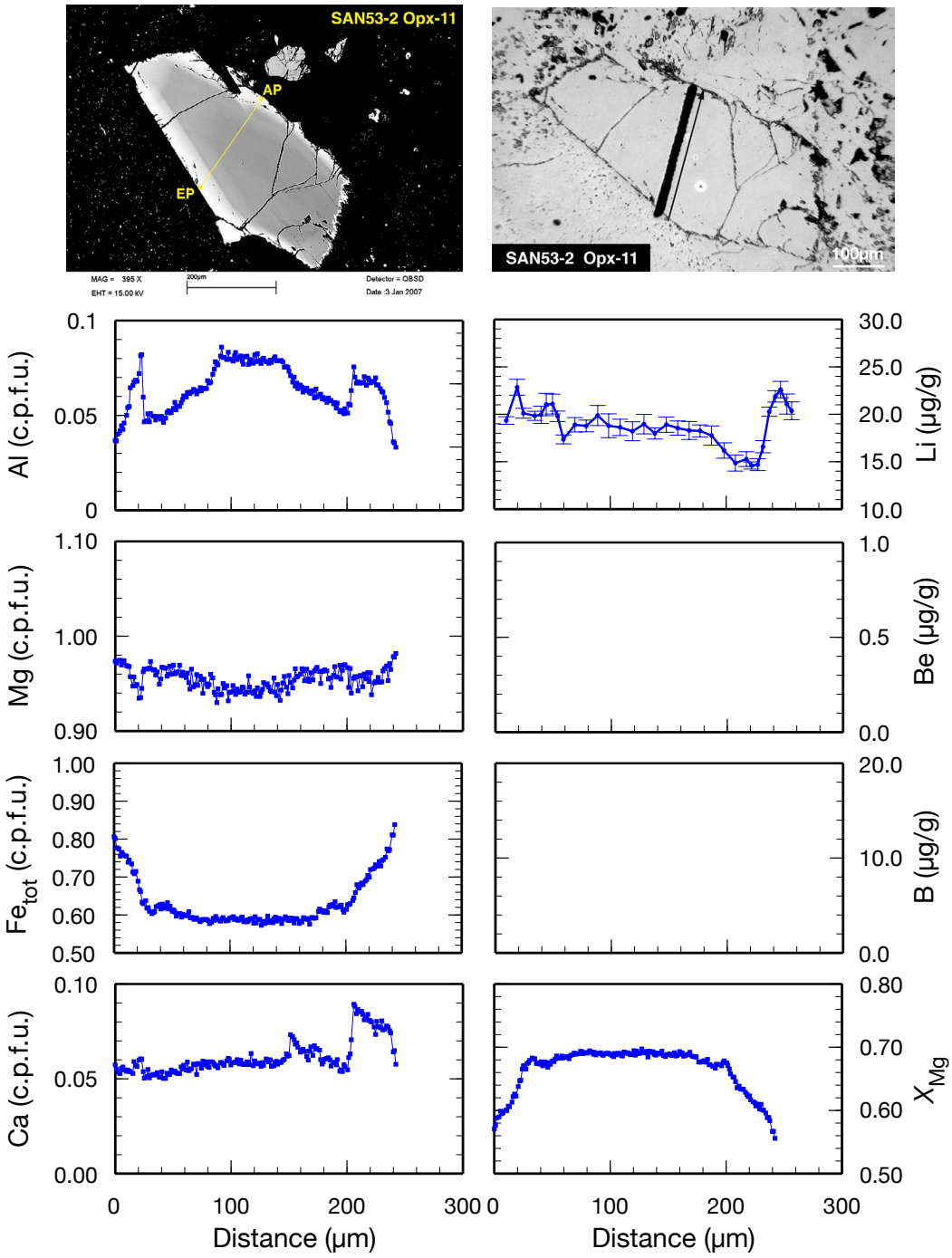


Fig. E.17. SAN53-2: Opx-11. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

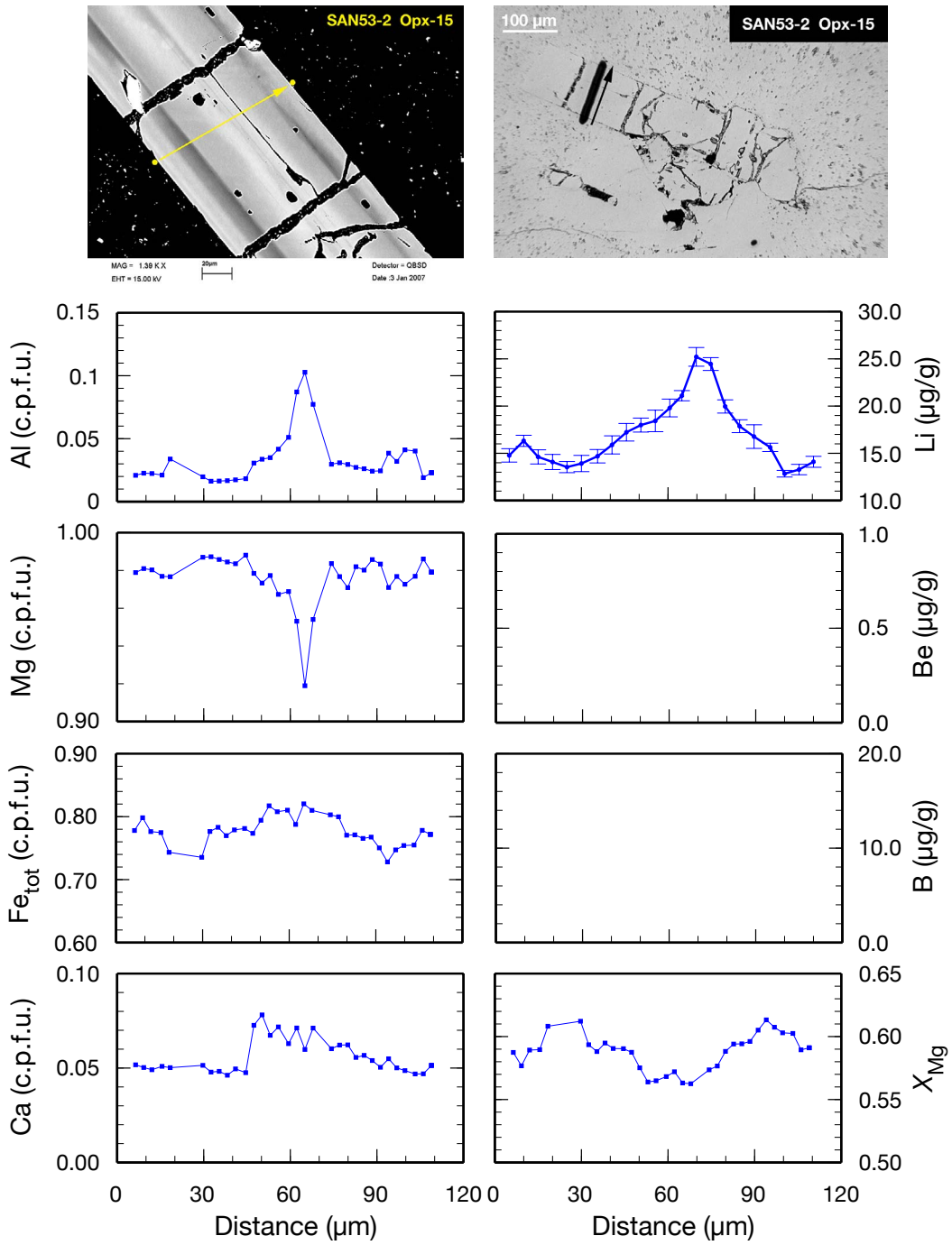


Fig. E.18. SAN53-2: Opx-15. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

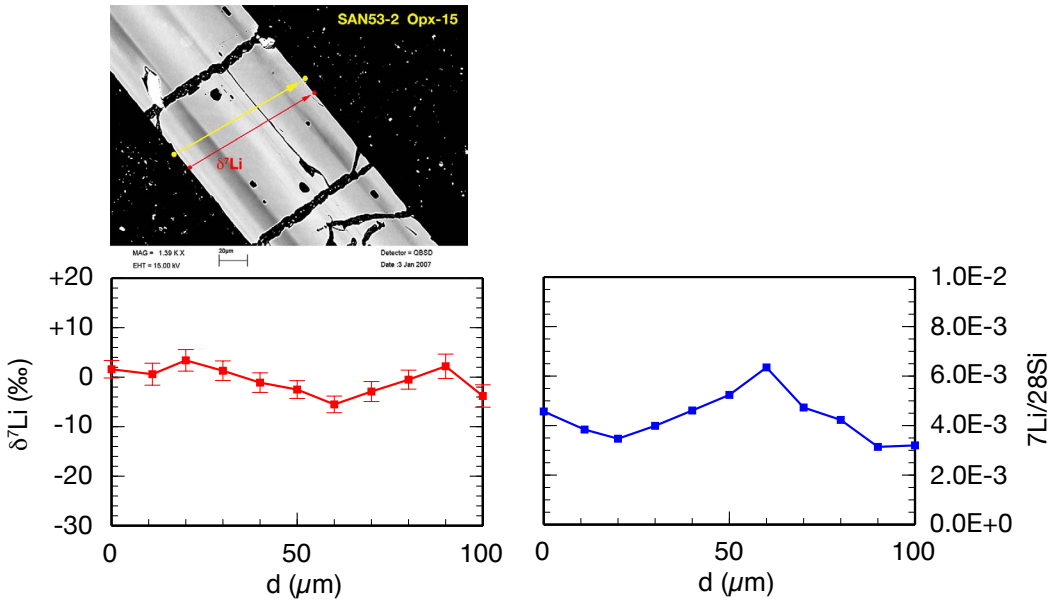


Fig. E.19. SAN53-2: Opx-15. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

E.0.28. Overview – SAN53-3

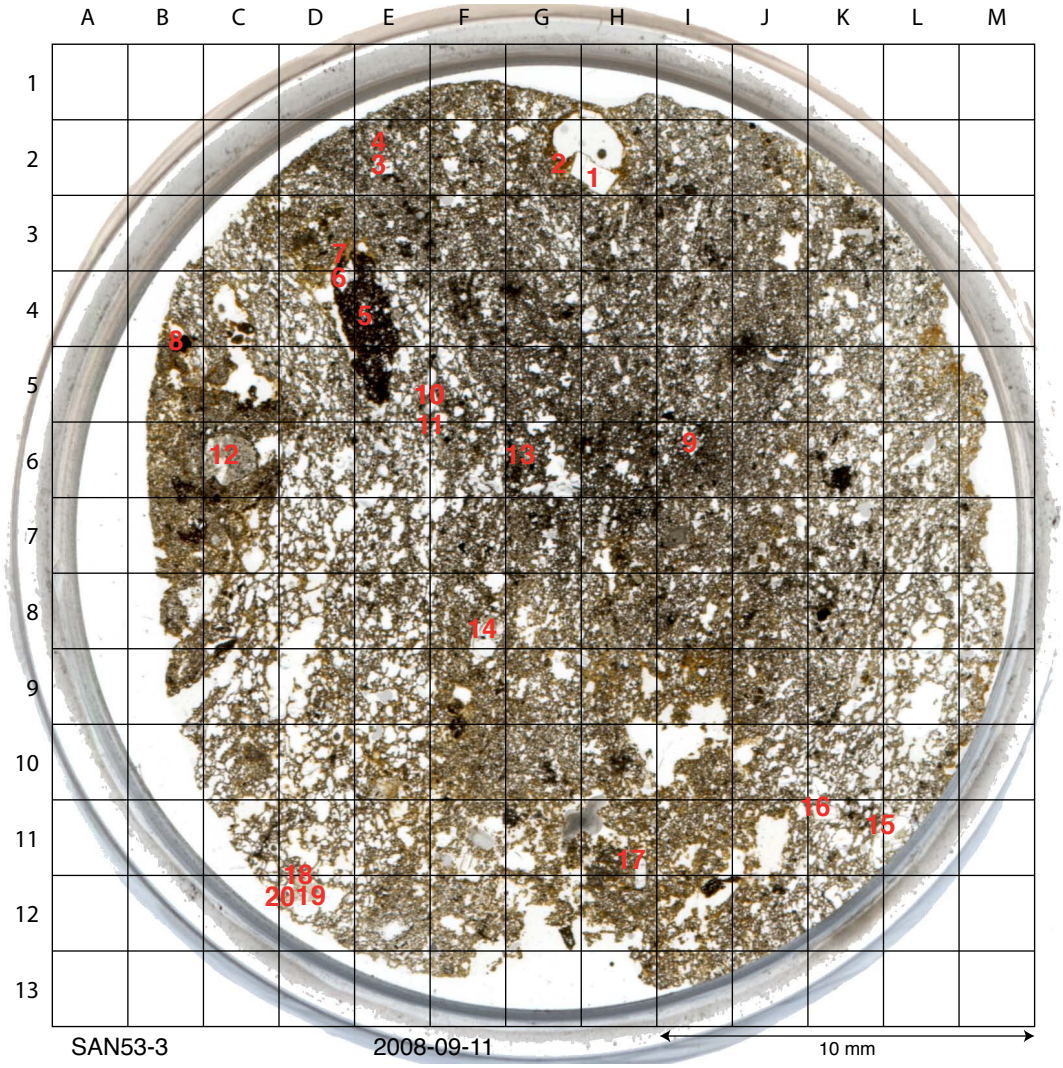


Fig. E.20. Scan of sample SAN53-3.

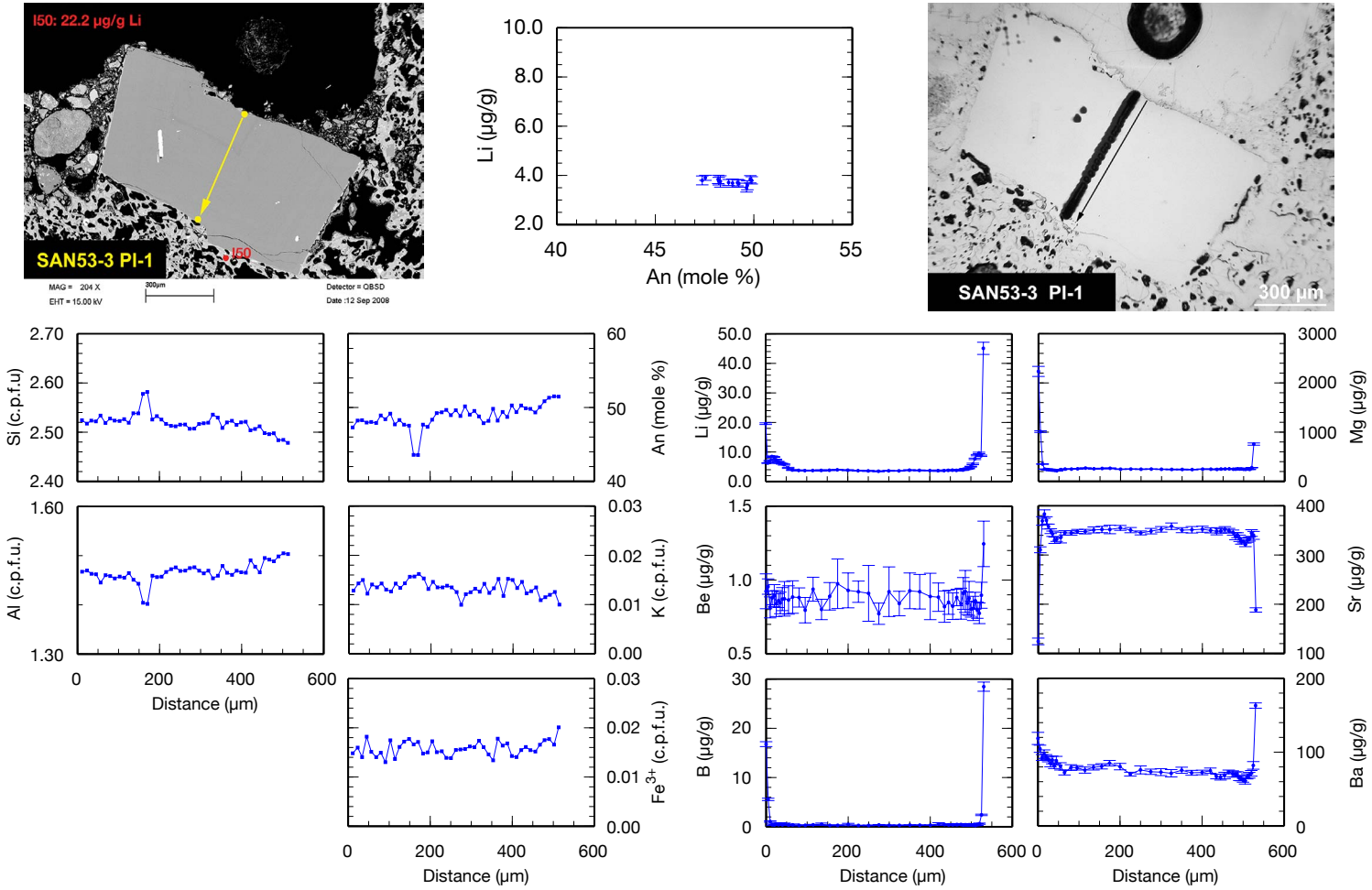


Fig. E.21. SAN53-3: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

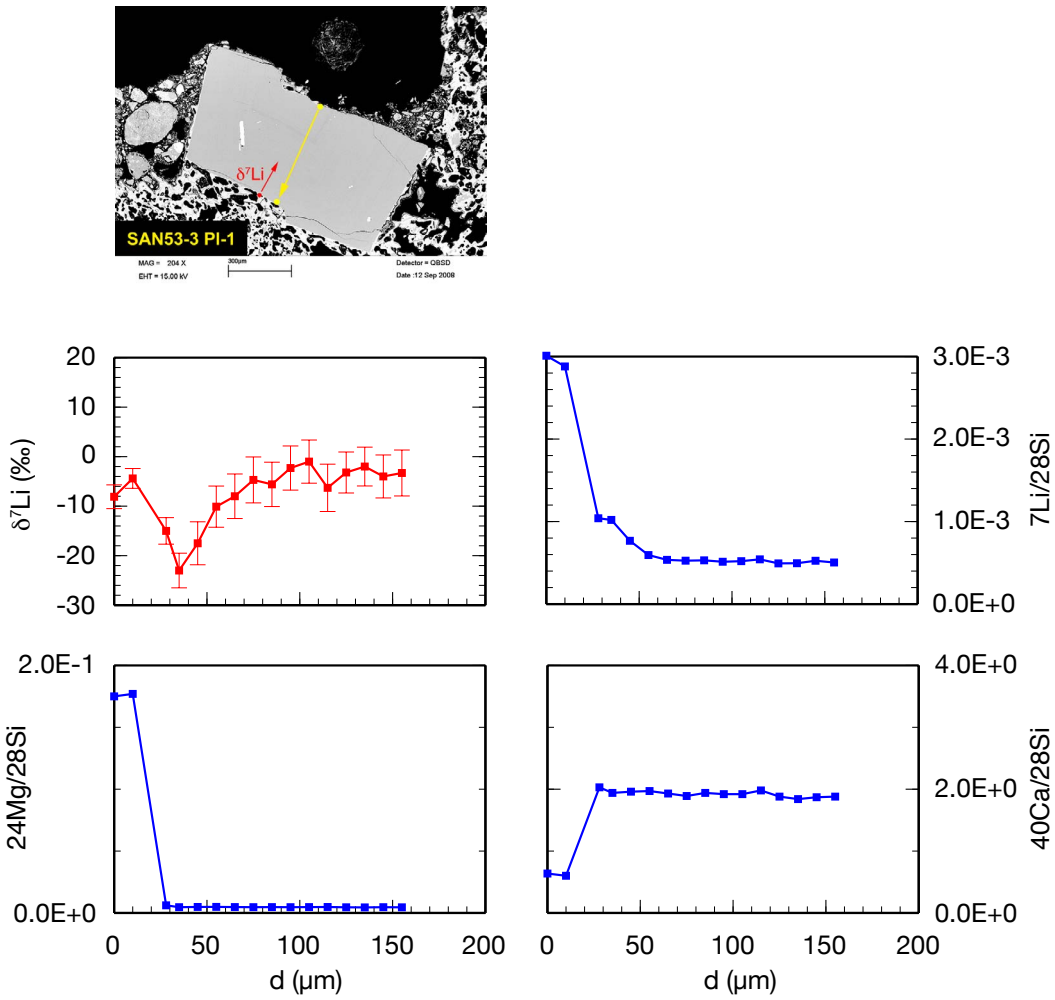


Fig. E.22. SAN53-3: Pl-1. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

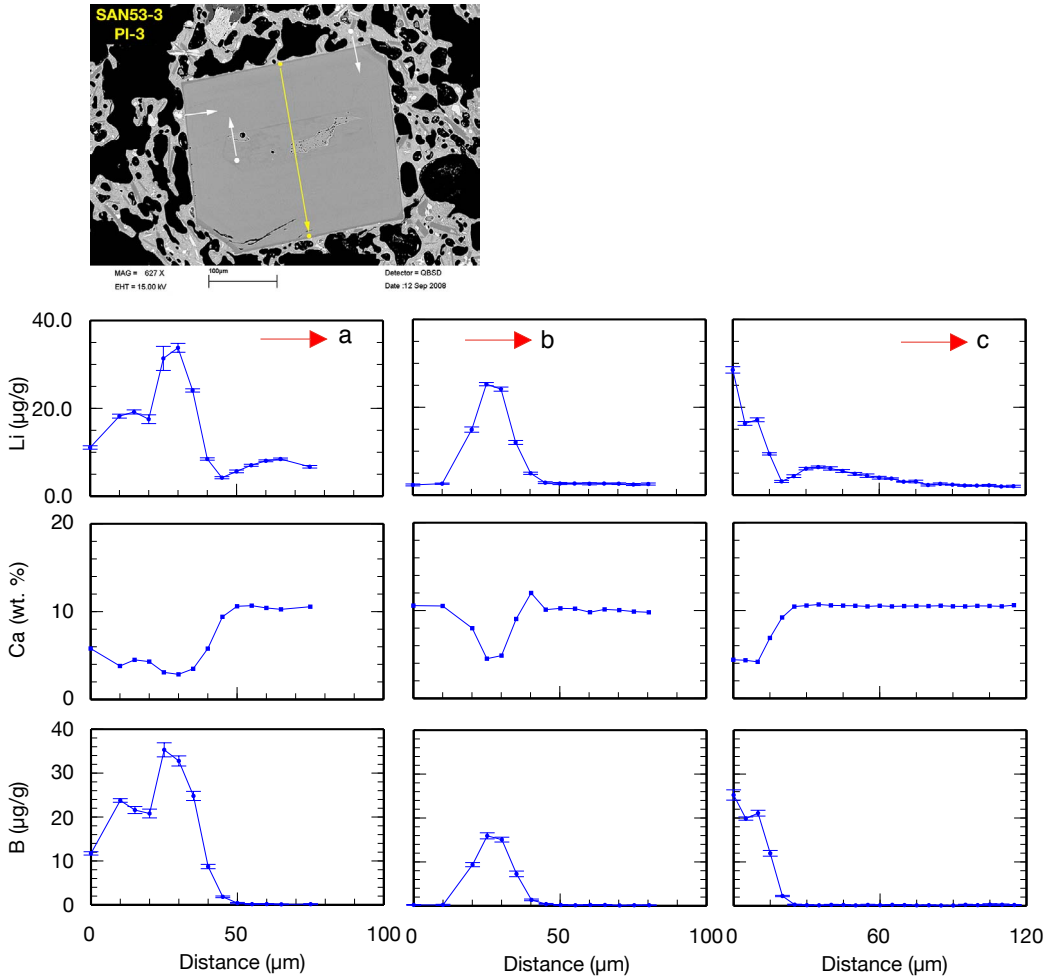


Fig. E.23. SAN53-3: Pl-3. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

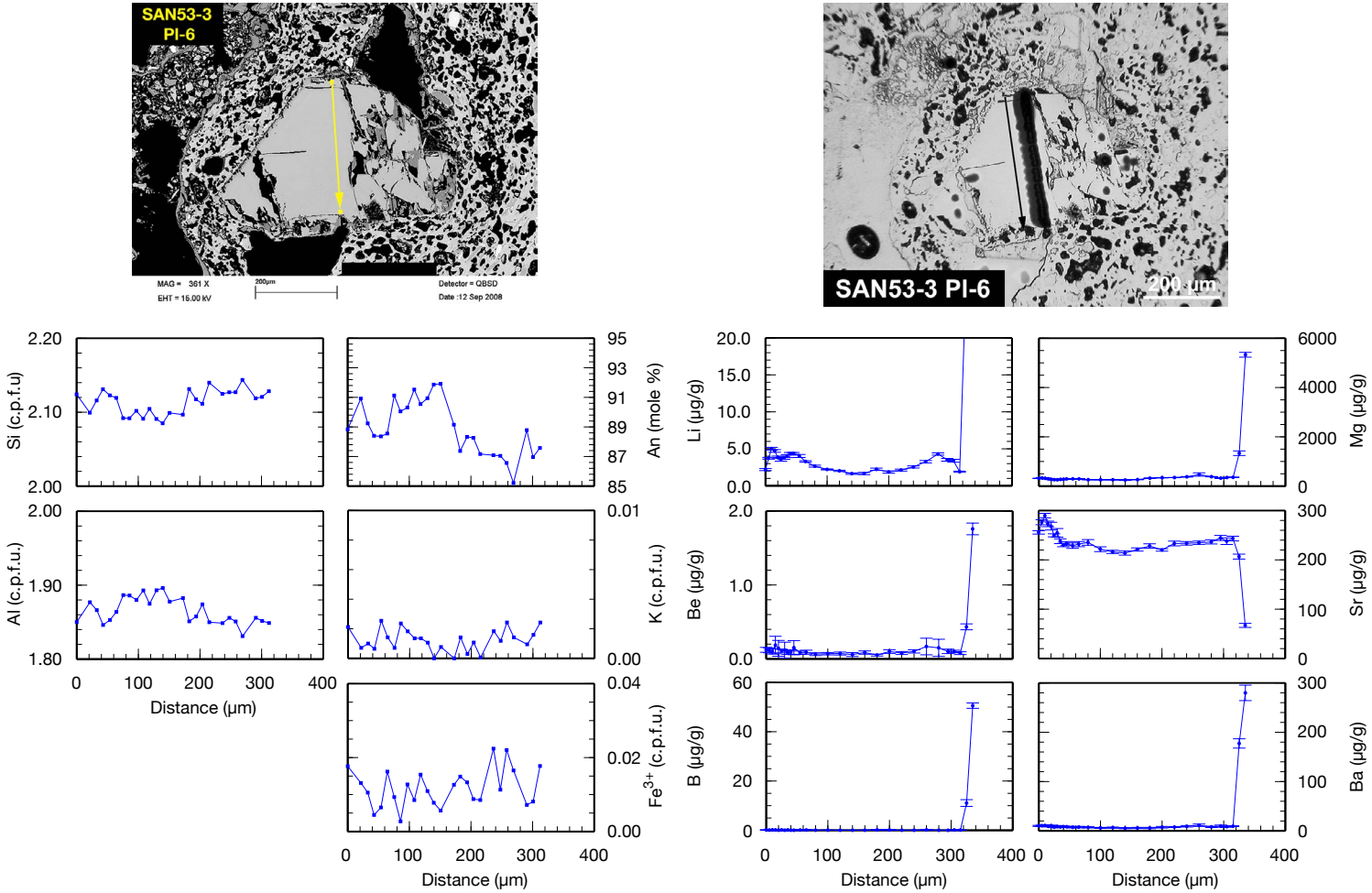


Fig. E.24. SAN53-3: Pl-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

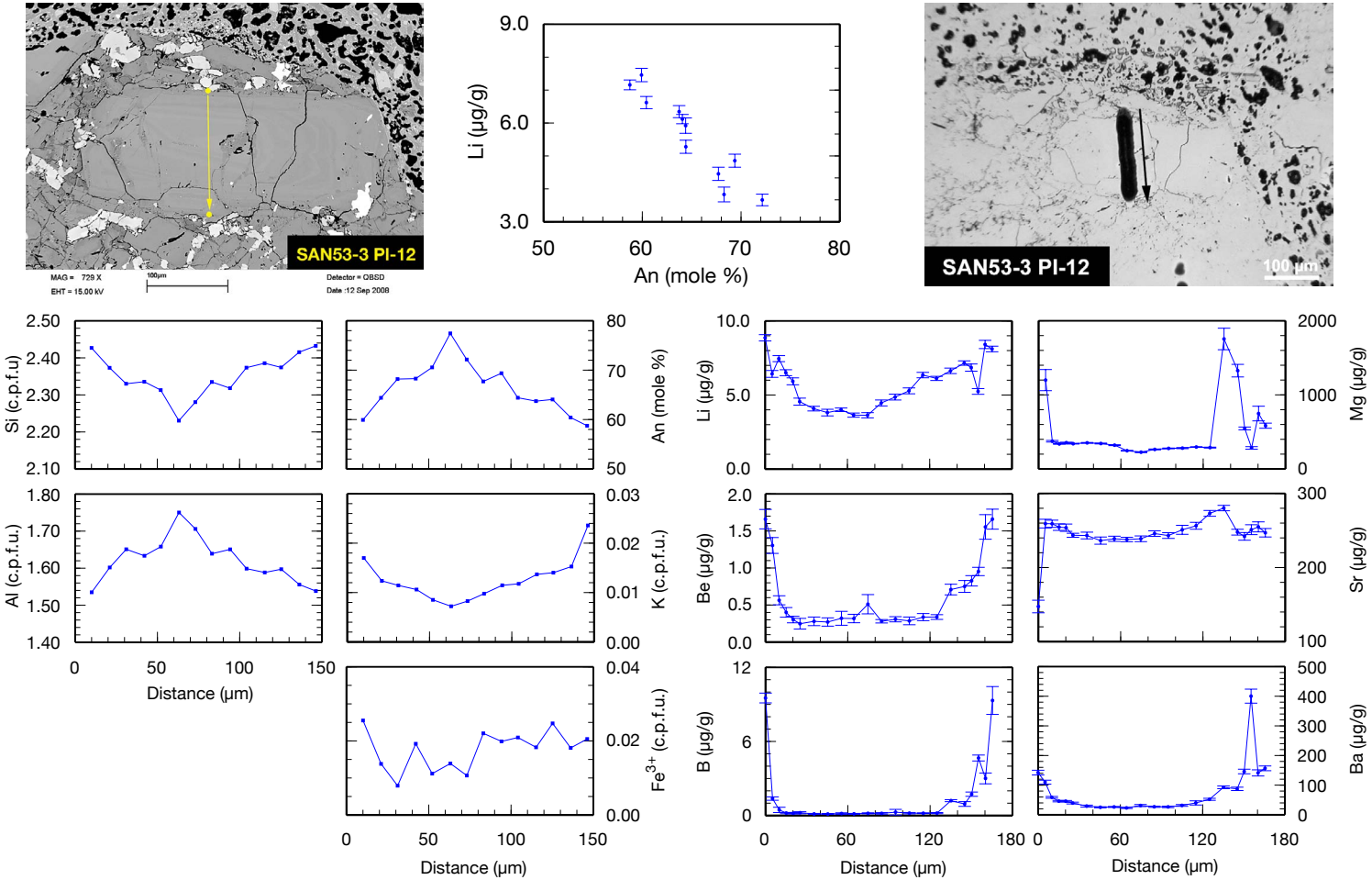


Fig. E.25. SAN53-3: Pl-12. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

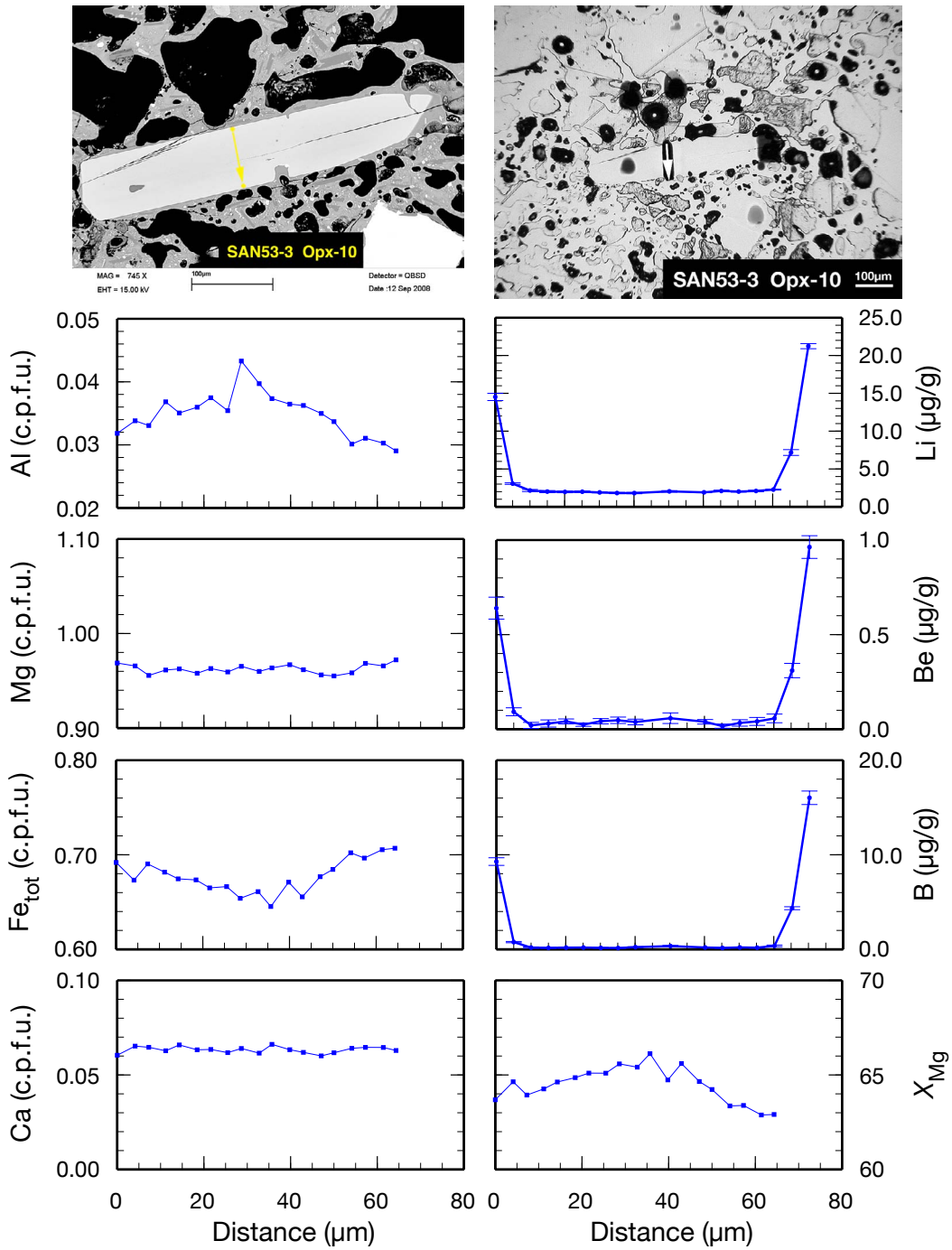


Fig. E.26. SAN53-3: Opx-10. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

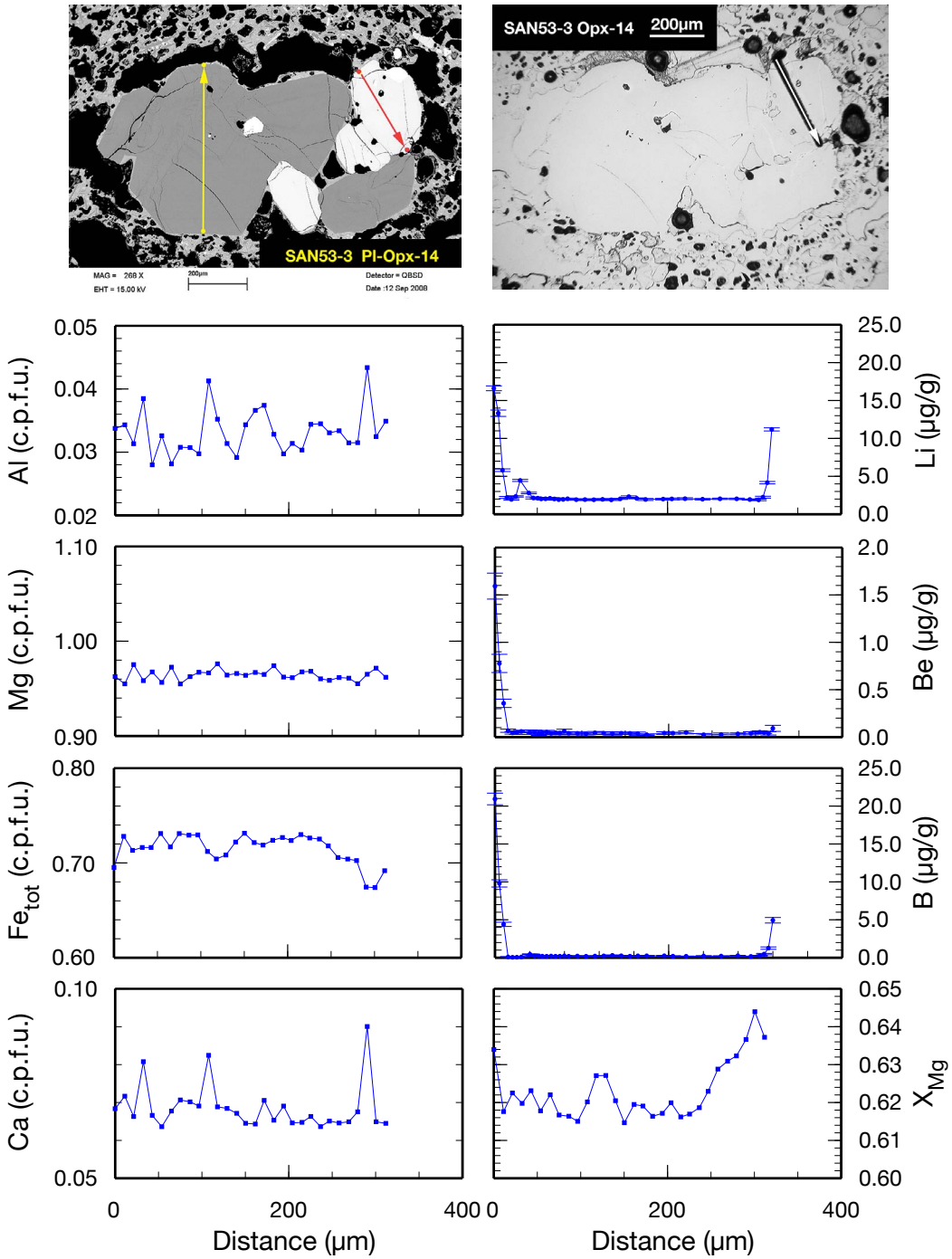


Fig. E.27. SAN53-3: Opx-14. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

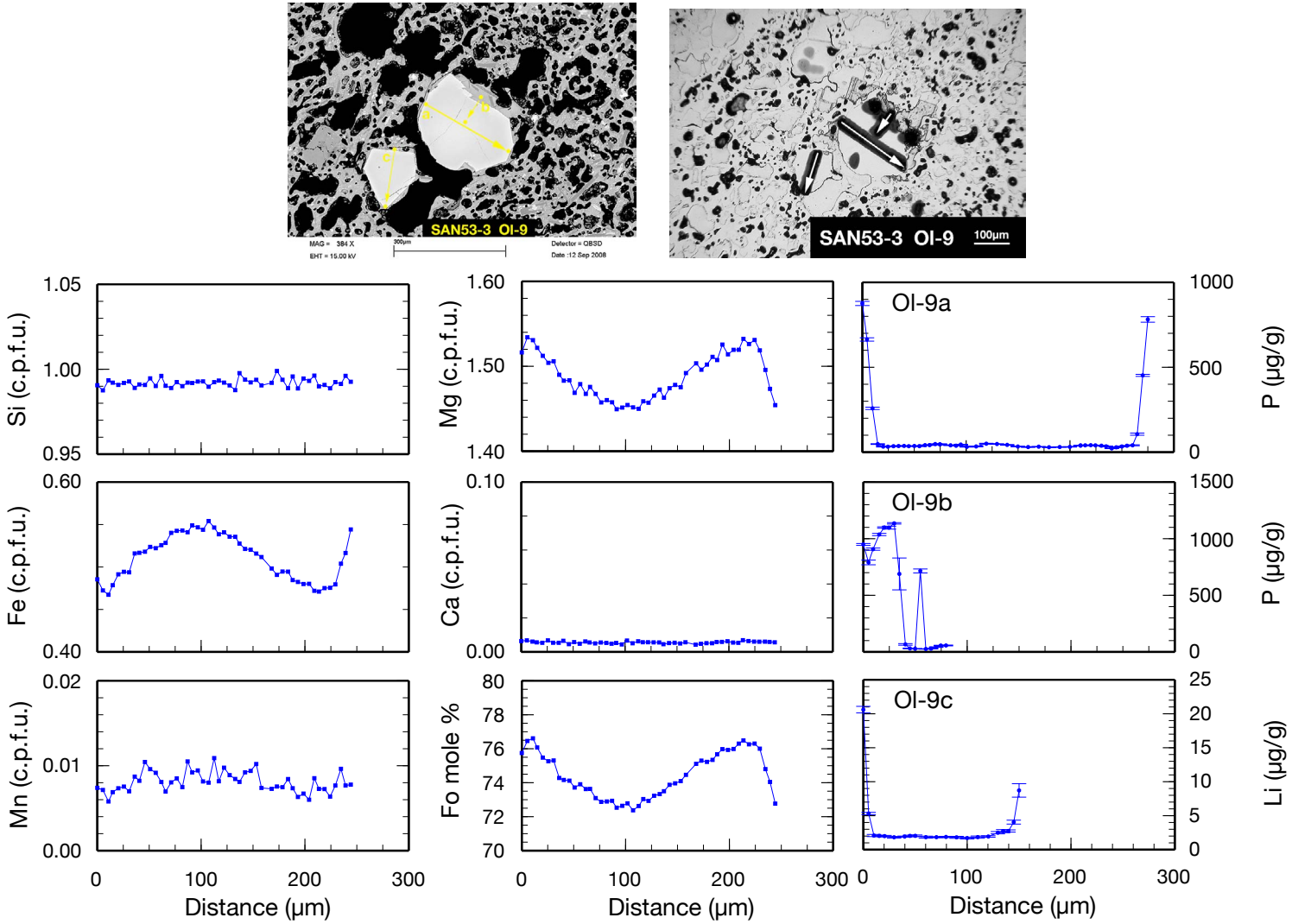


Fig. E.28. SAN53-3: Ol-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 oxygens.

E.0.29. Overview – SAN53-4

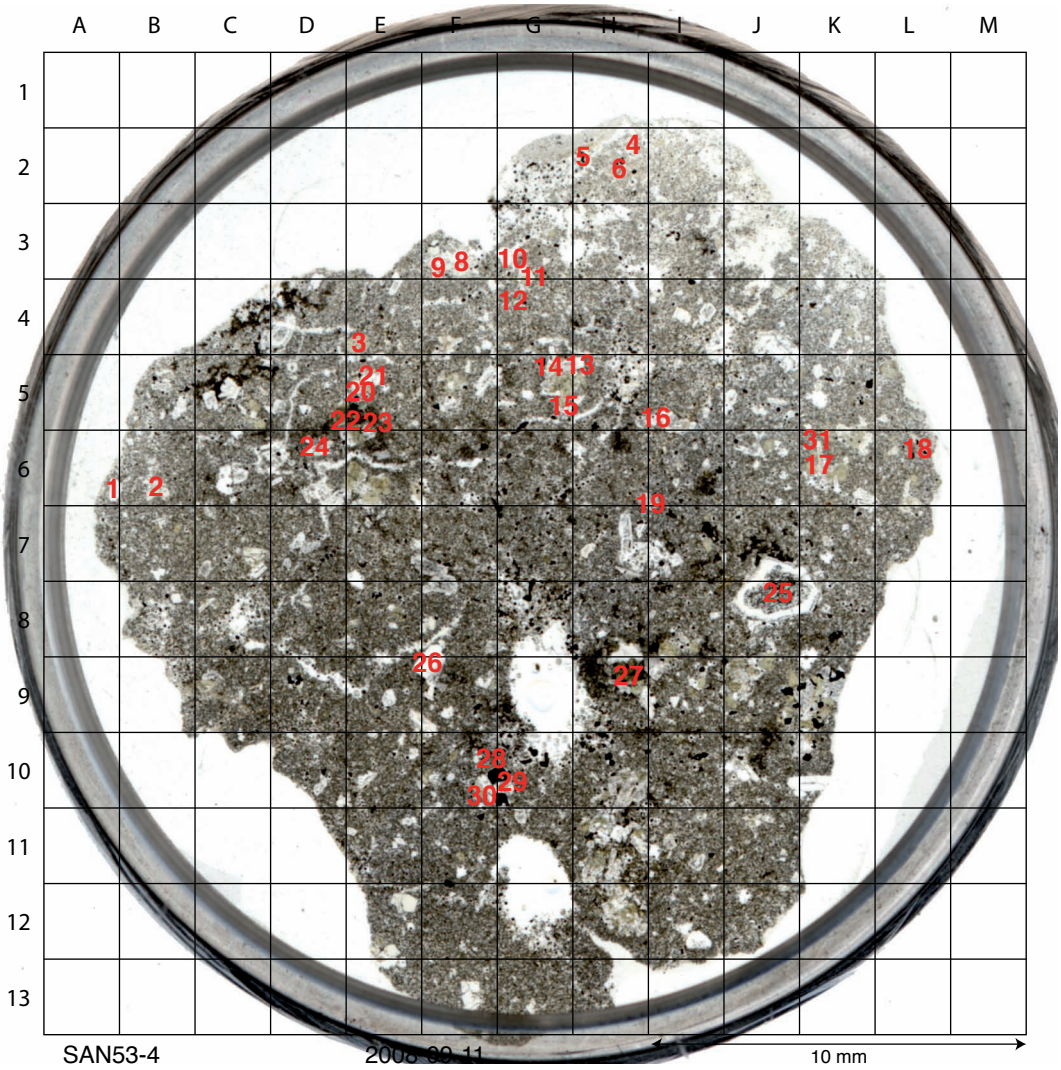


Fig. E.29. Scan of sample SAN53-4.

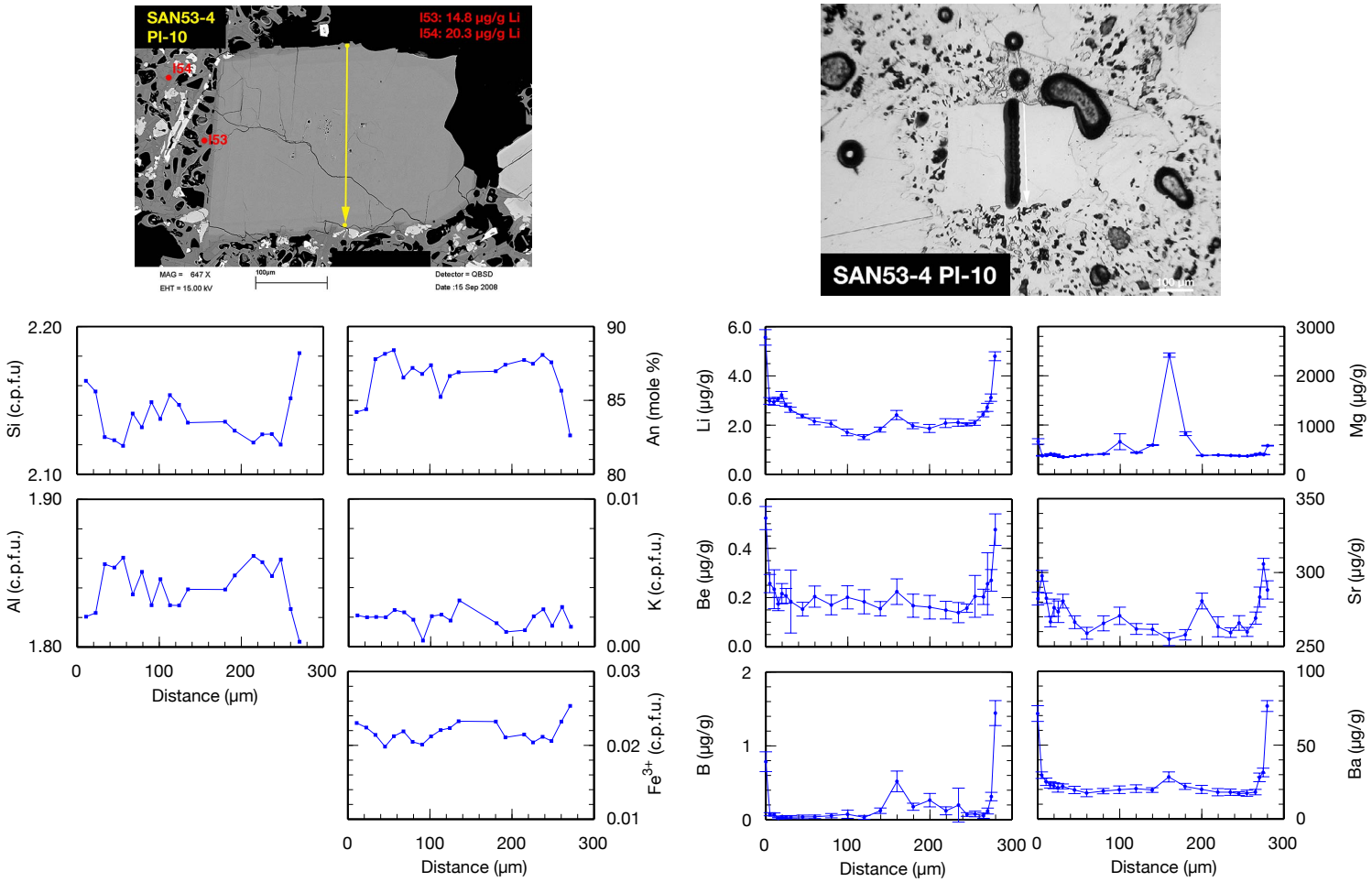


Fig. E.30. SAN53-4: Pl-10. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

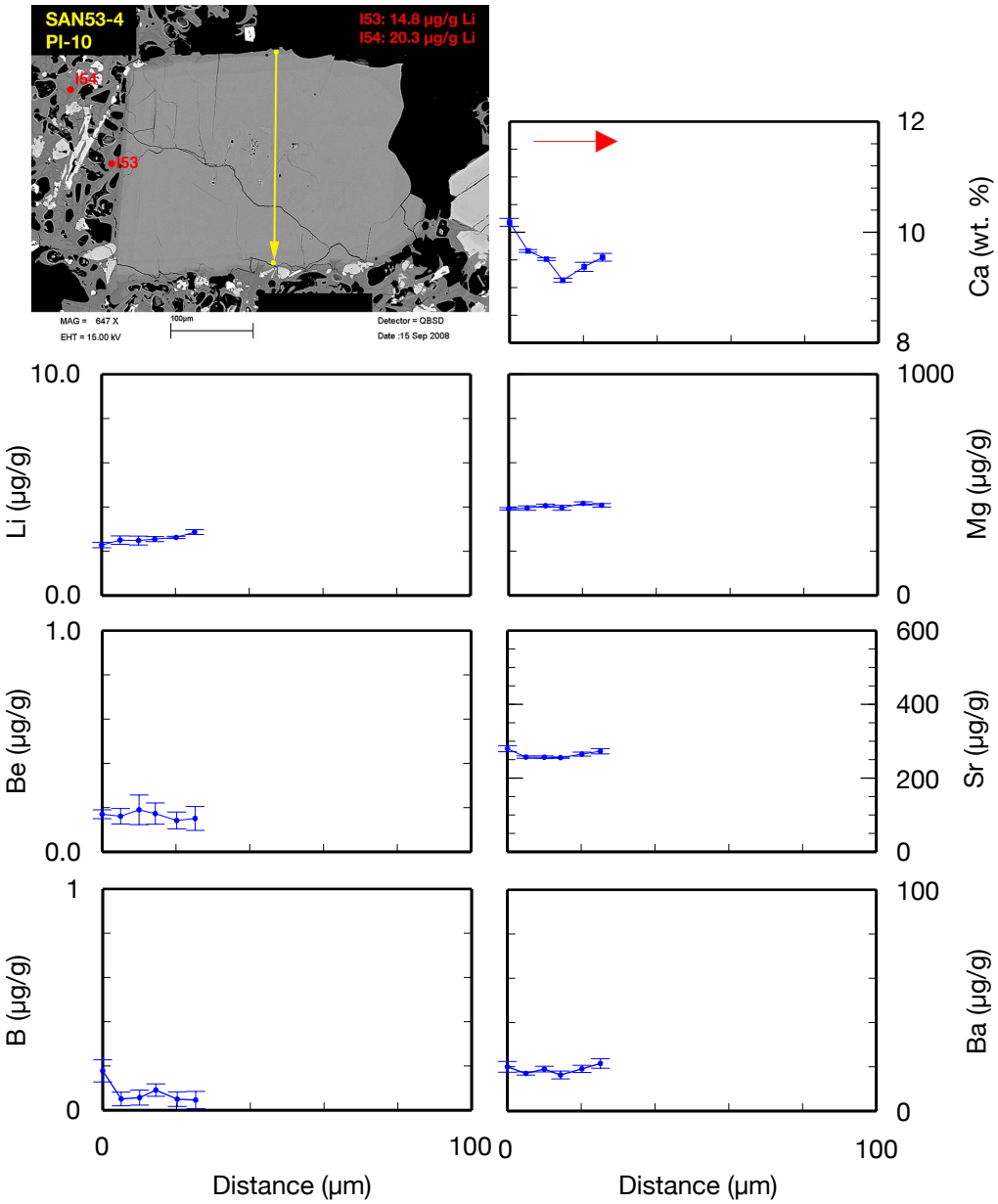


Fig. E.31. SAN53-4: Pl-10. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or broken rims into plagioclase.

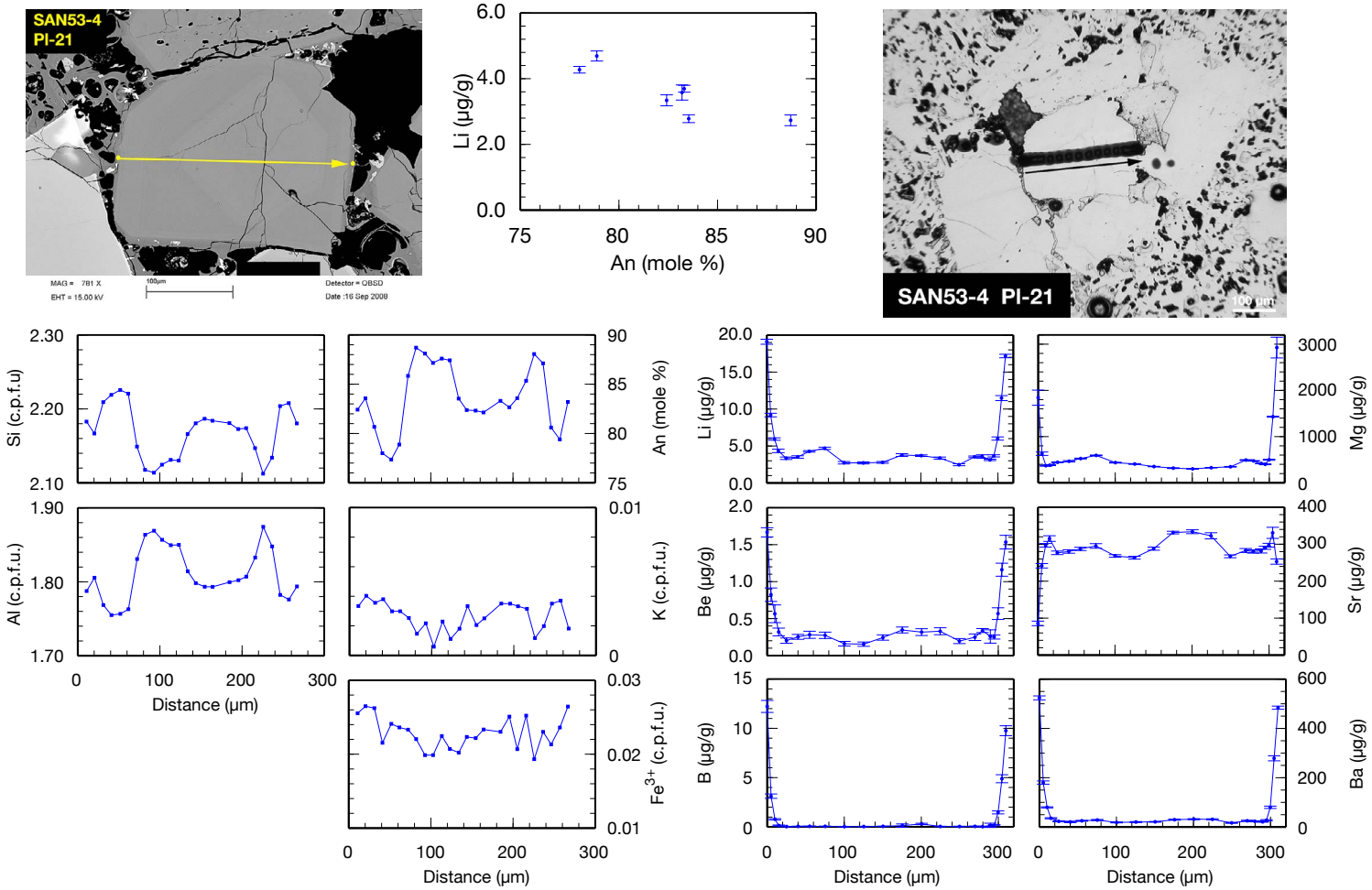


Fig. E.32. SAN53-4: Pl-21. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

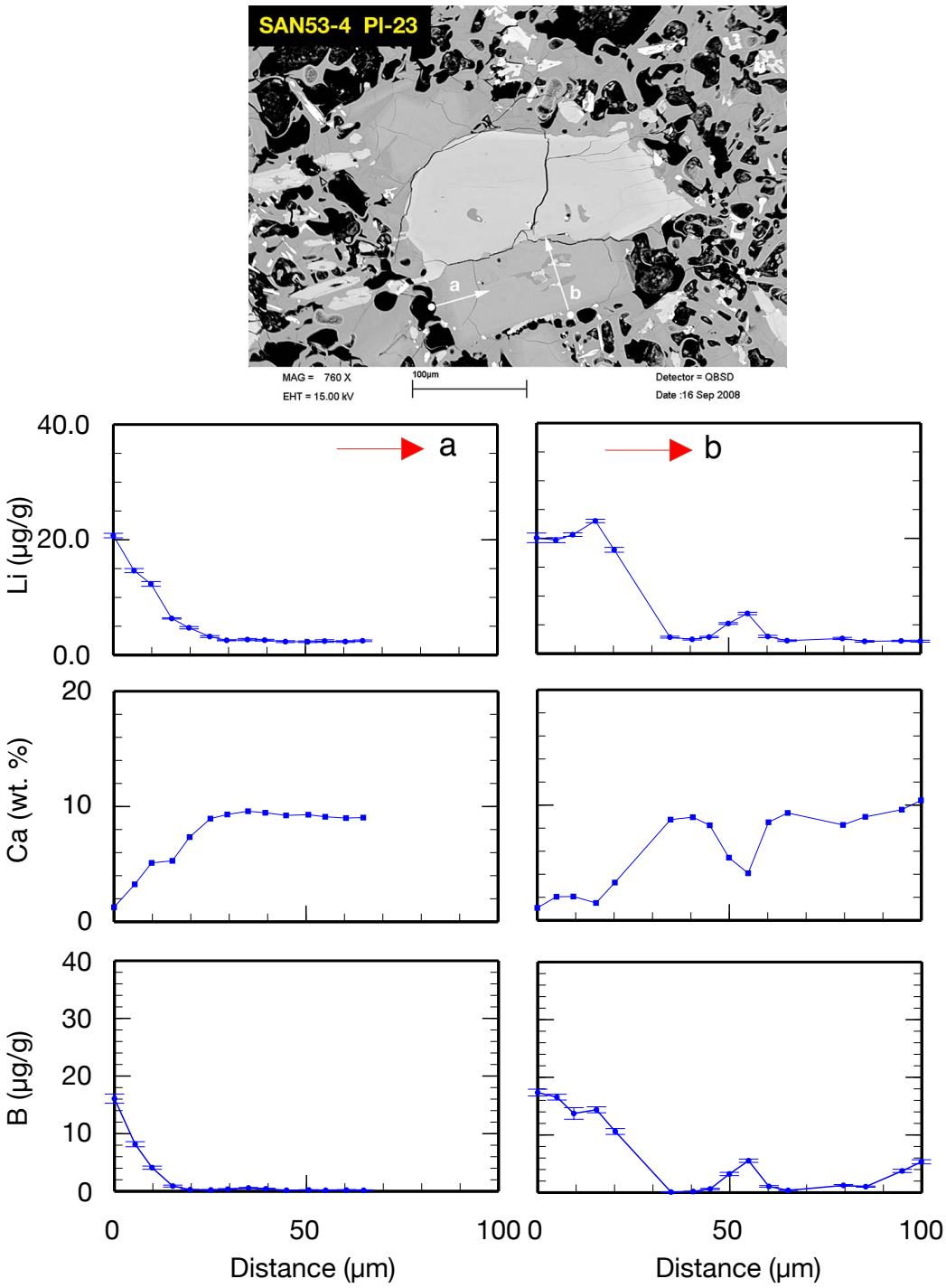


Fig. E.33. SAN53-4: Pl-23. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

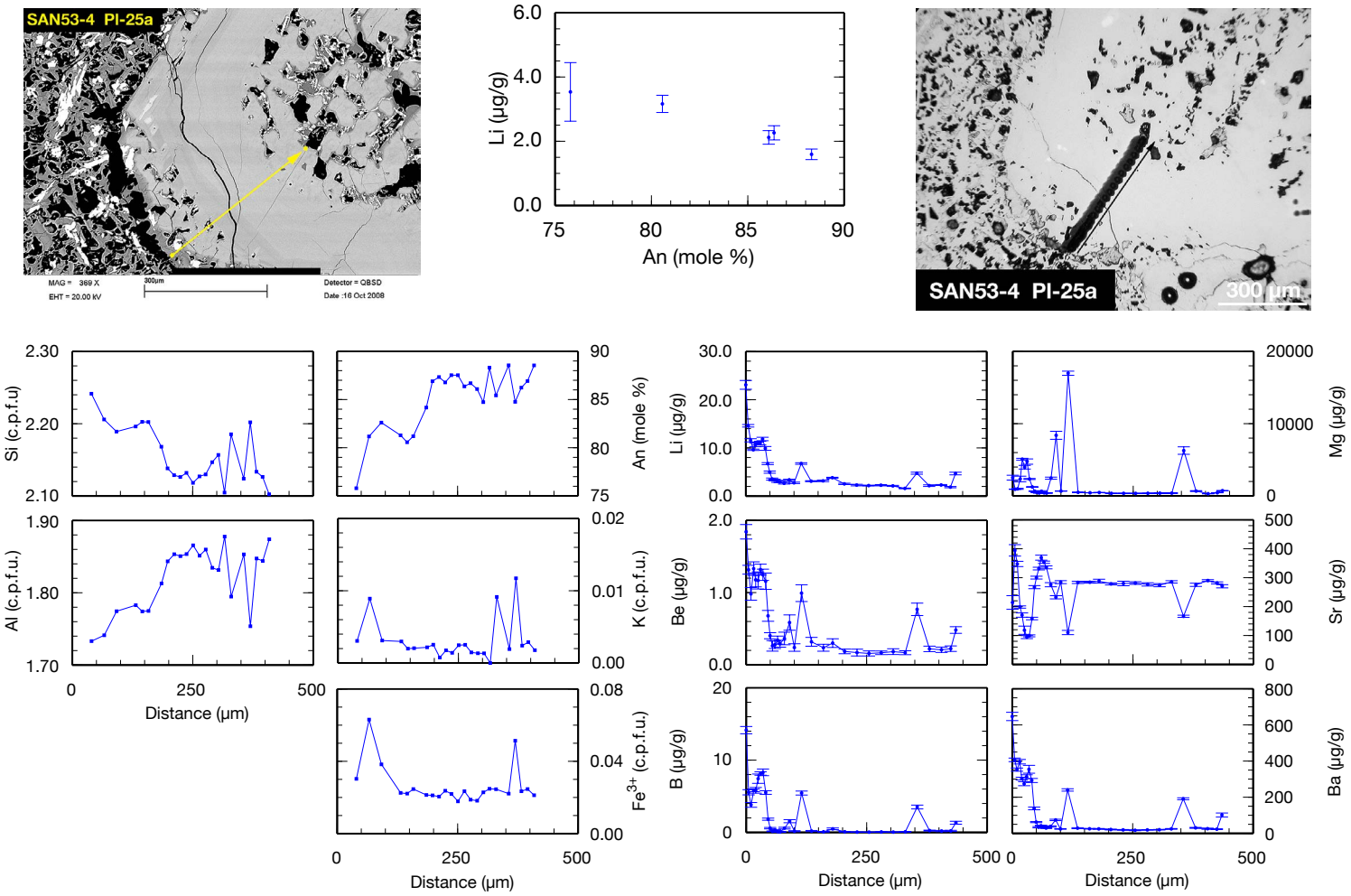


Fig. E.34. SAN53-4: Pl-25. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

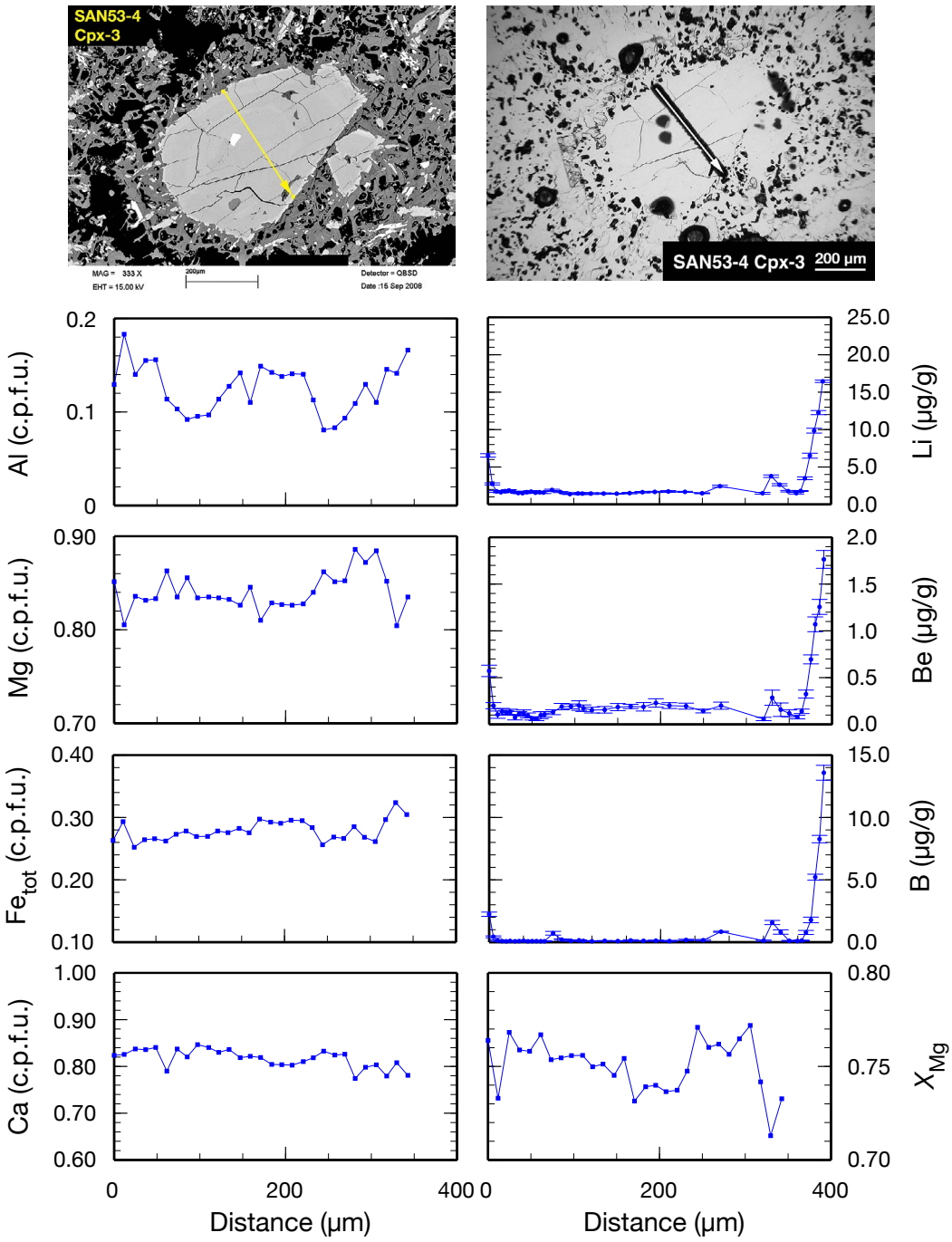


Fig. E.35. SAN53-4: Cpx-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

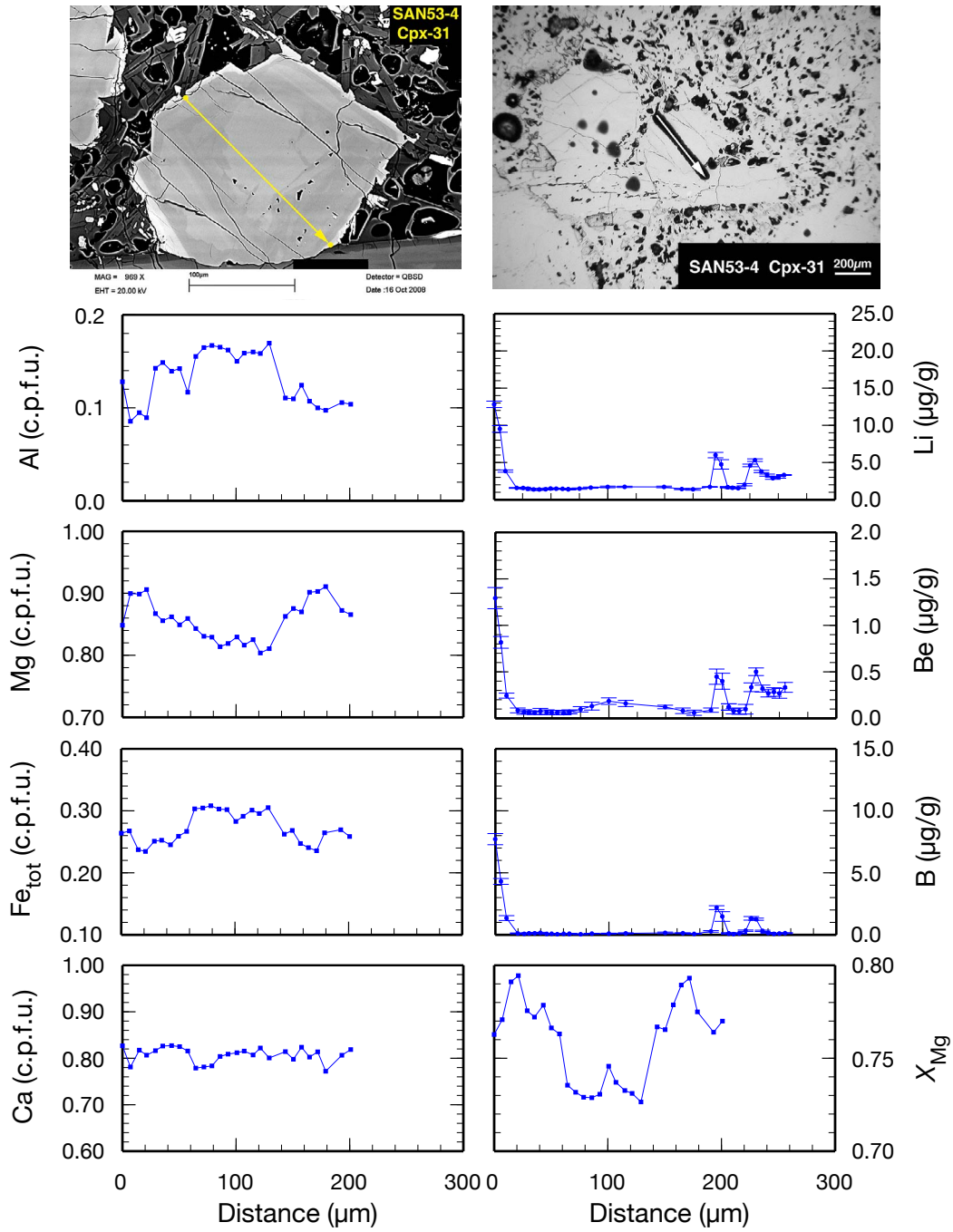


Fig. E.36. SAN53-4: Cpx-31. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

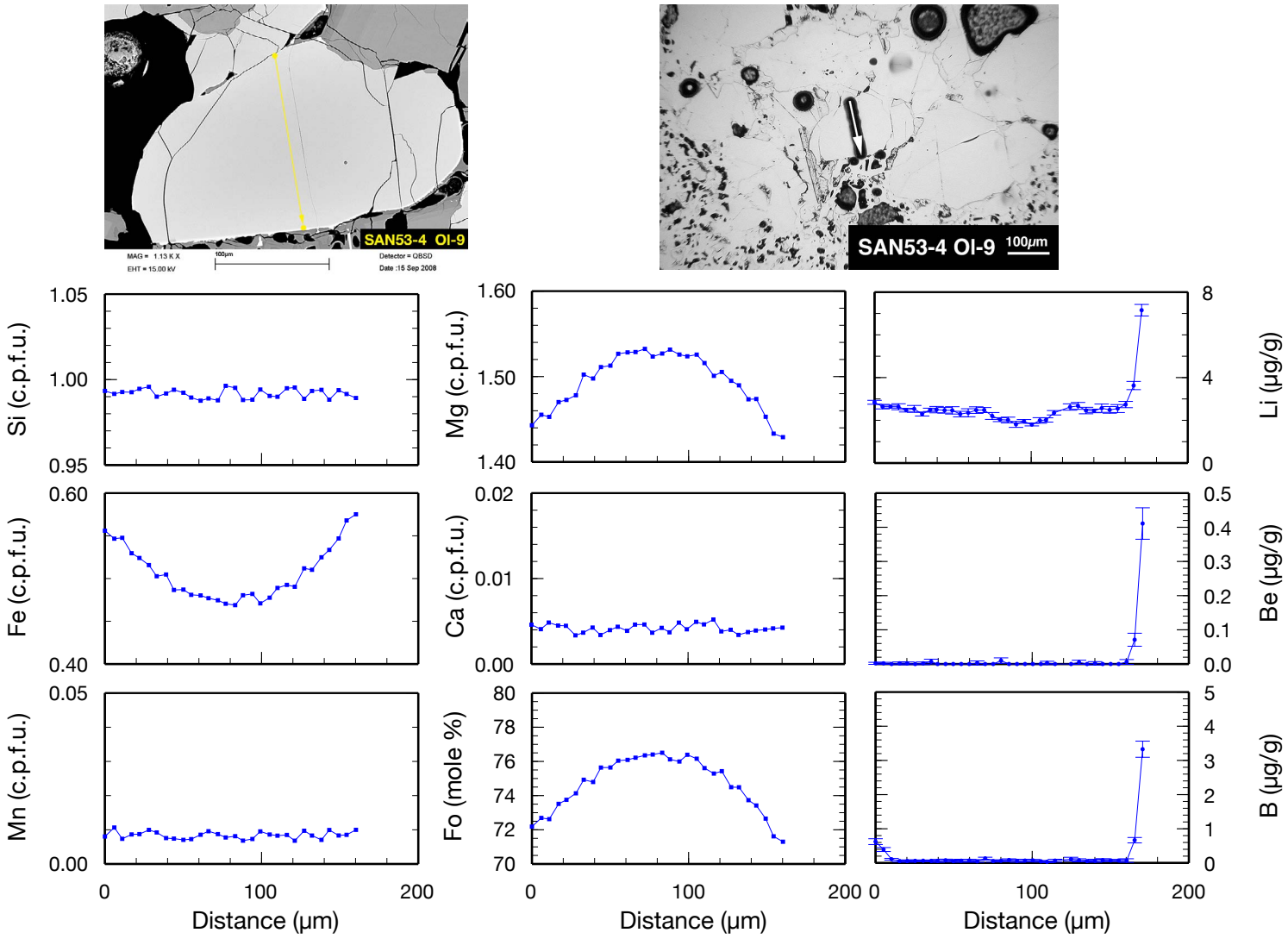


Fig. E.37. SAN53-4: Ol-9. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 oxygens.

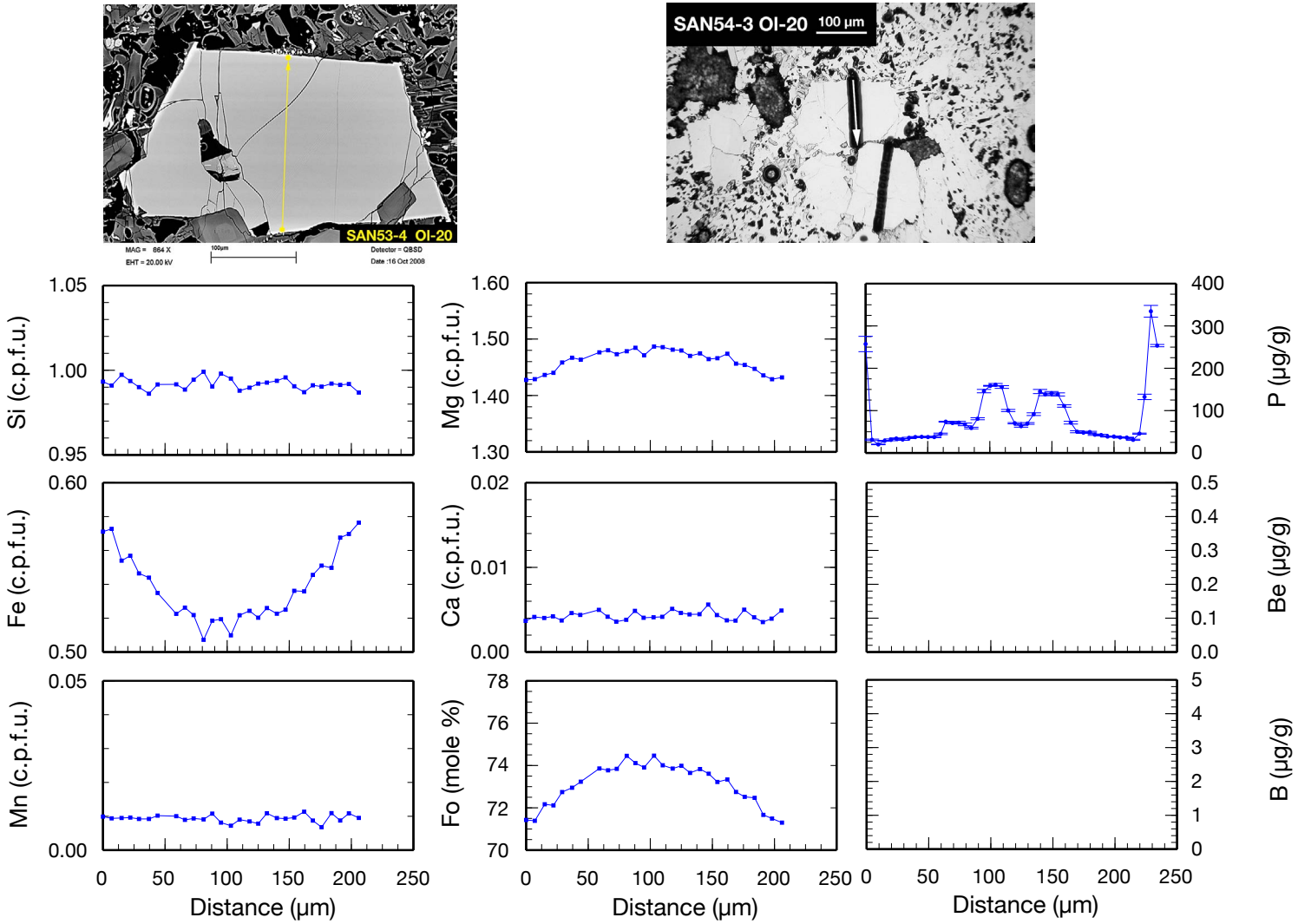


Fig. E.38. SAN53-4: Ol-20. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 oxygens.

E.0.30. Overview – SAN53-5

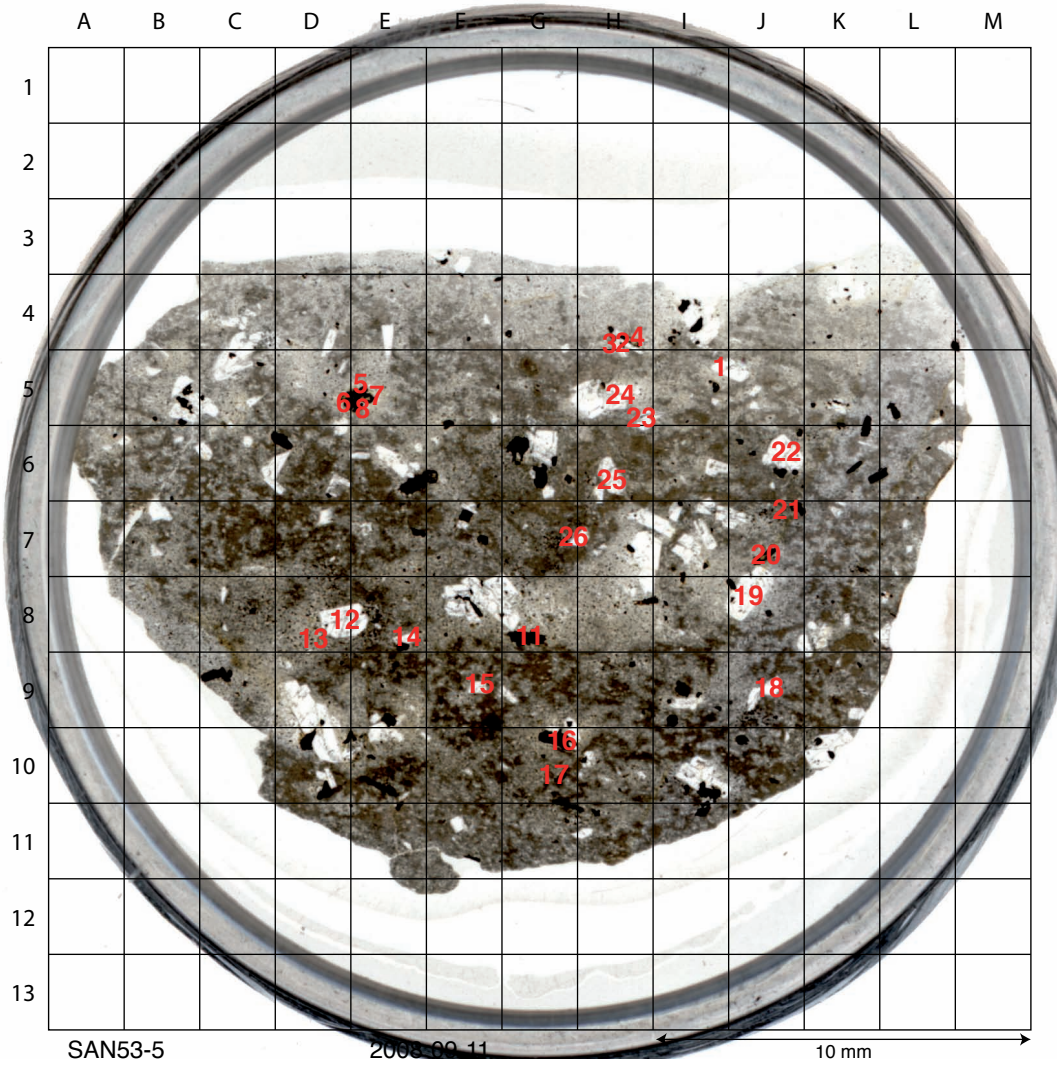


Fig. E.39. Scan of sample SAN53-5

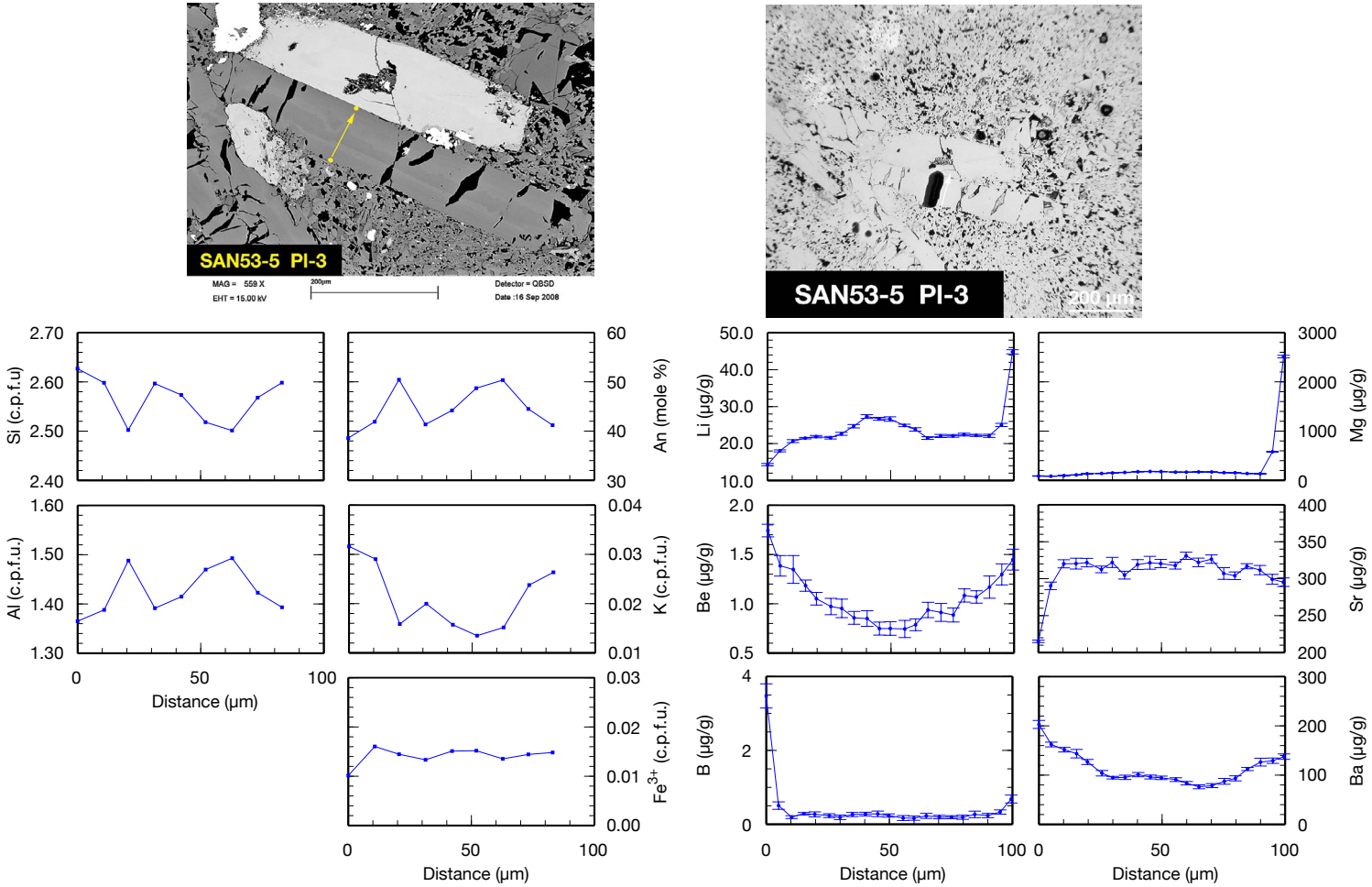


Fig. E.40. SAN53-5: Pl-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

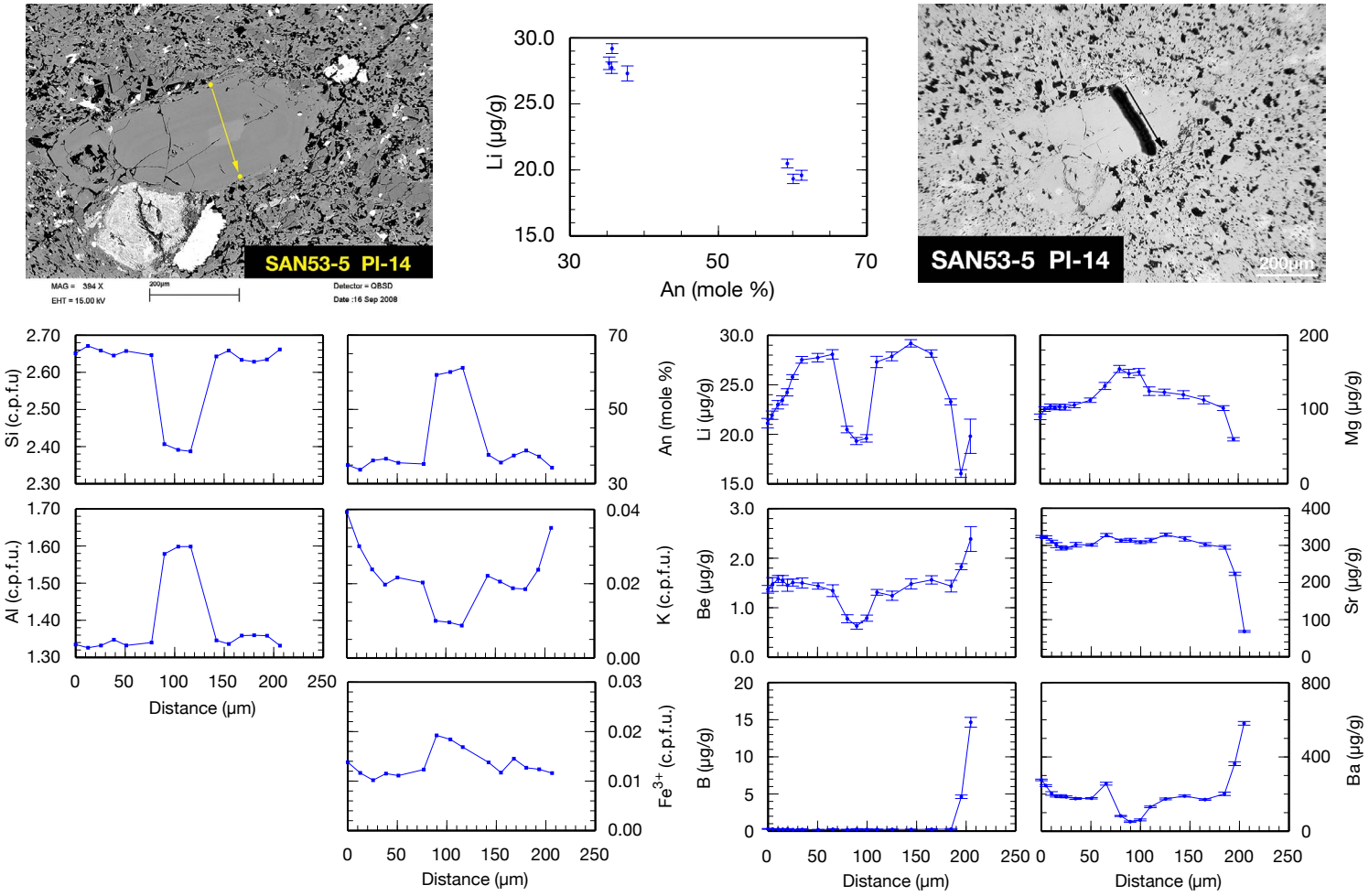


Fig. E.41. SAN53-5: Pl-14. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

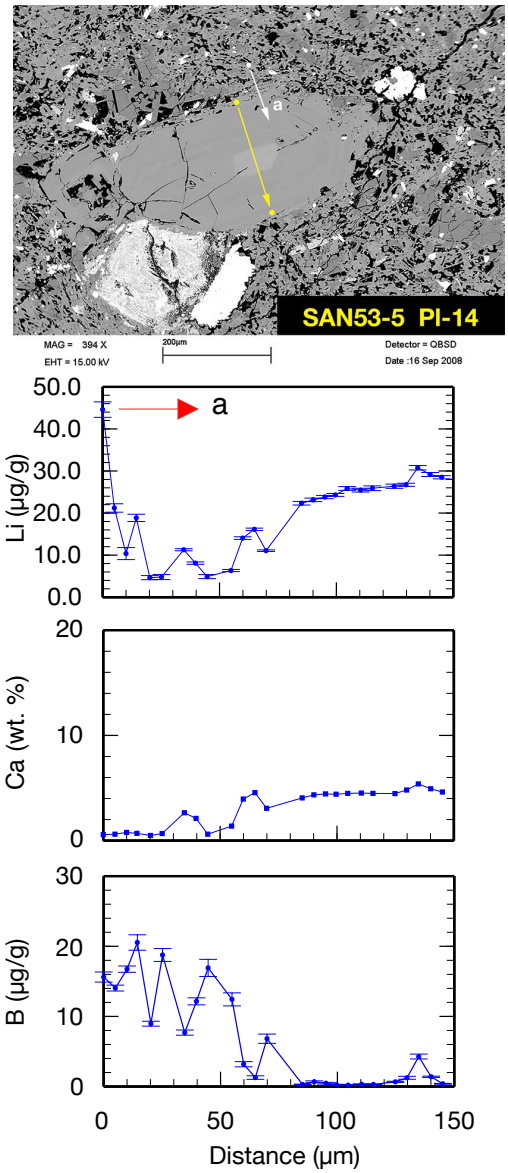


Fig. E.42. SAN53-5: Pl-14. A short SIMS profile was analyzed to detect Li concentrations in matrix adjacent to plagioclase.

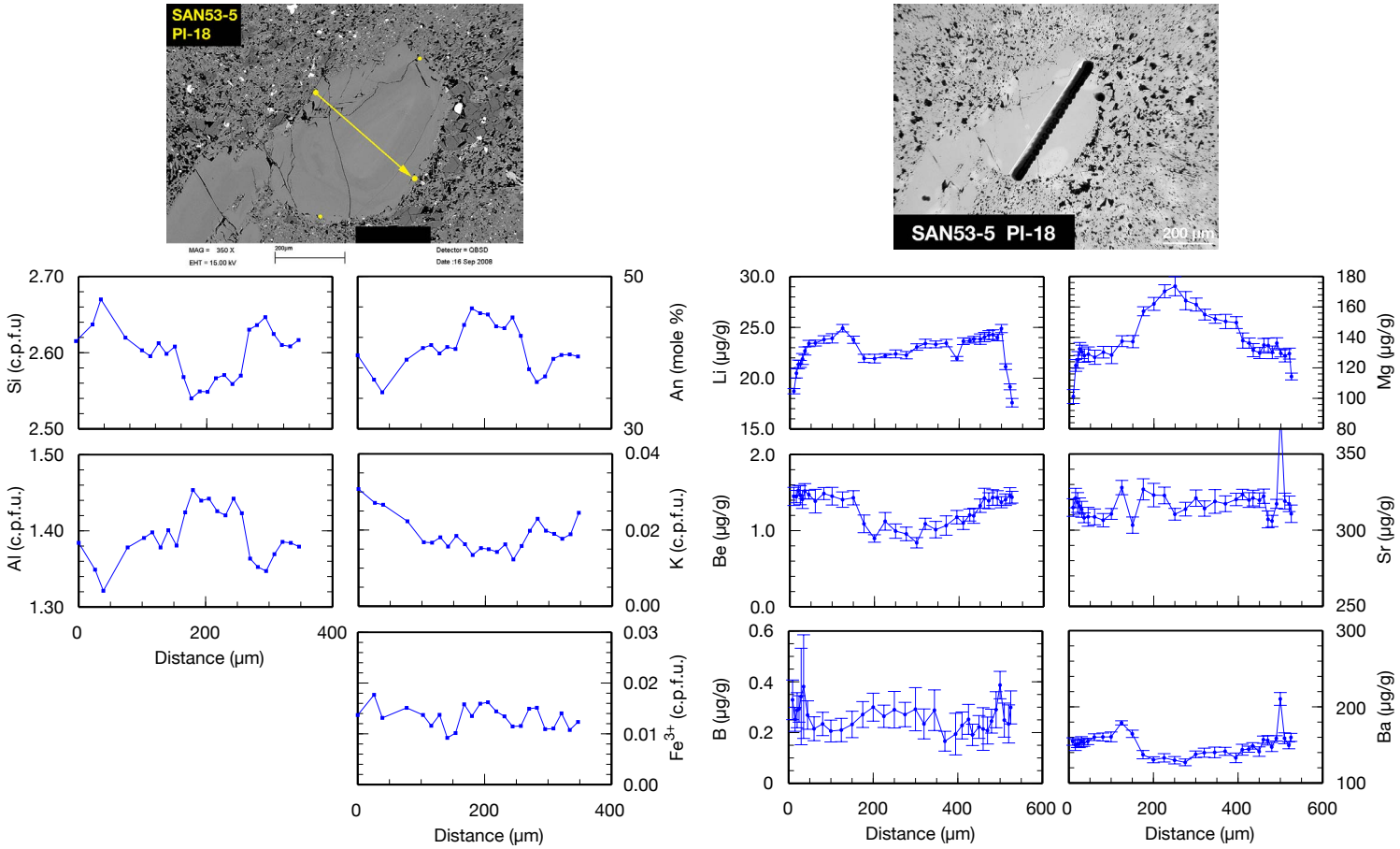


Fig. E.43. SAN53-5: Pl-18. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

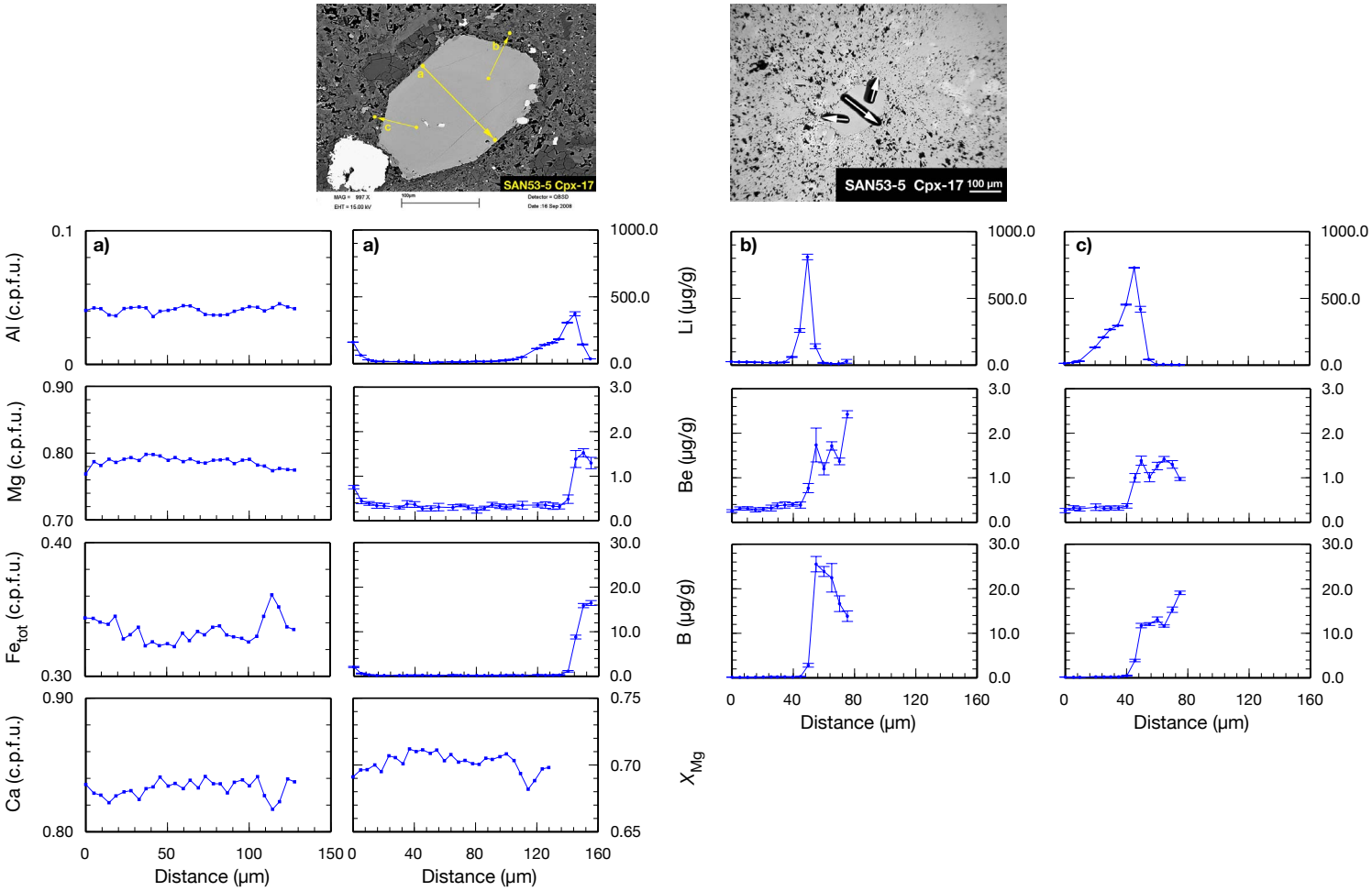


Fig. E.44. SAN53-5: Cpx-17. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

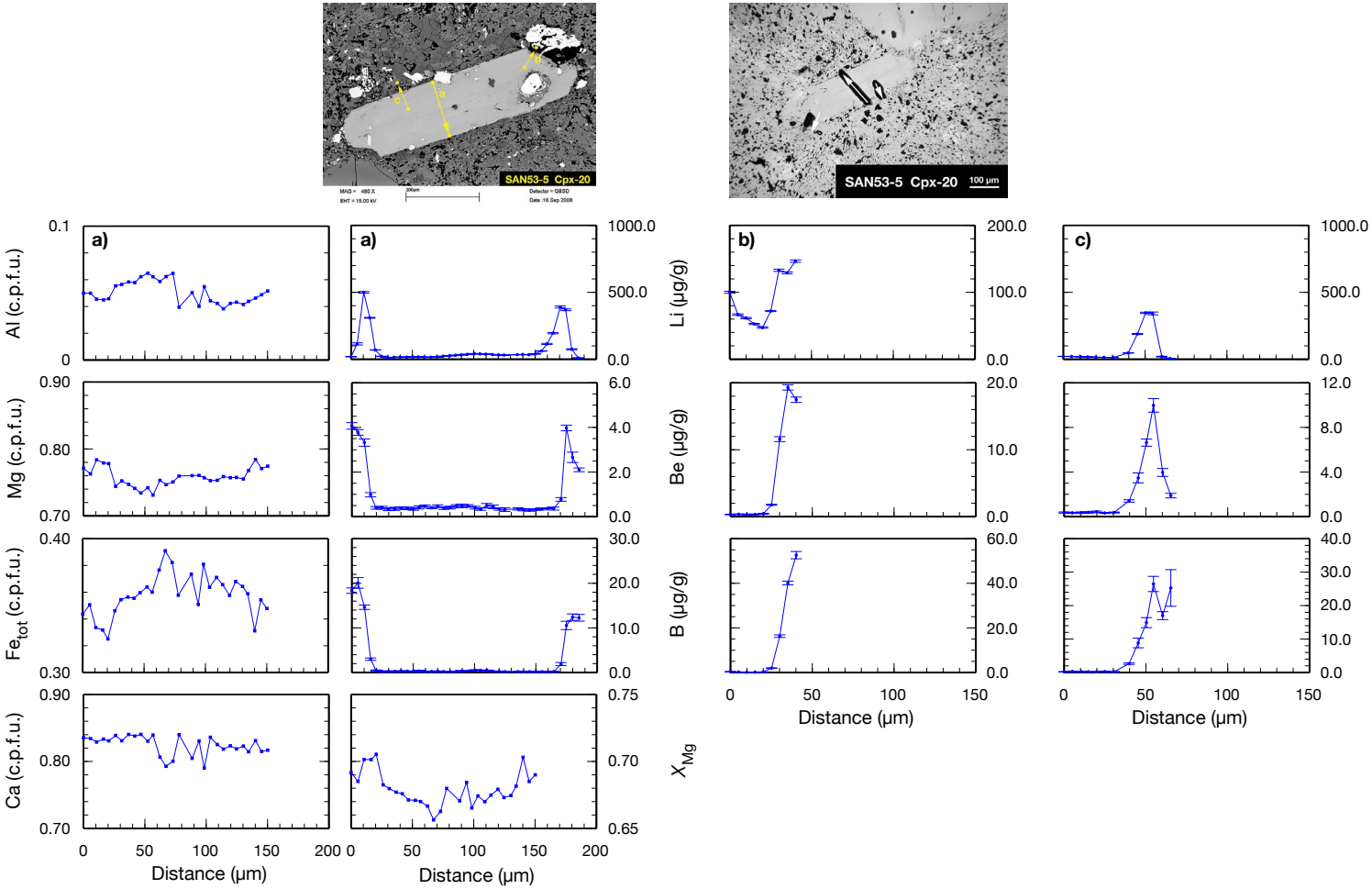


Fig. E.45. SAN53-5: Cpx-20. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

E.0.31. Overview – SAN53-6

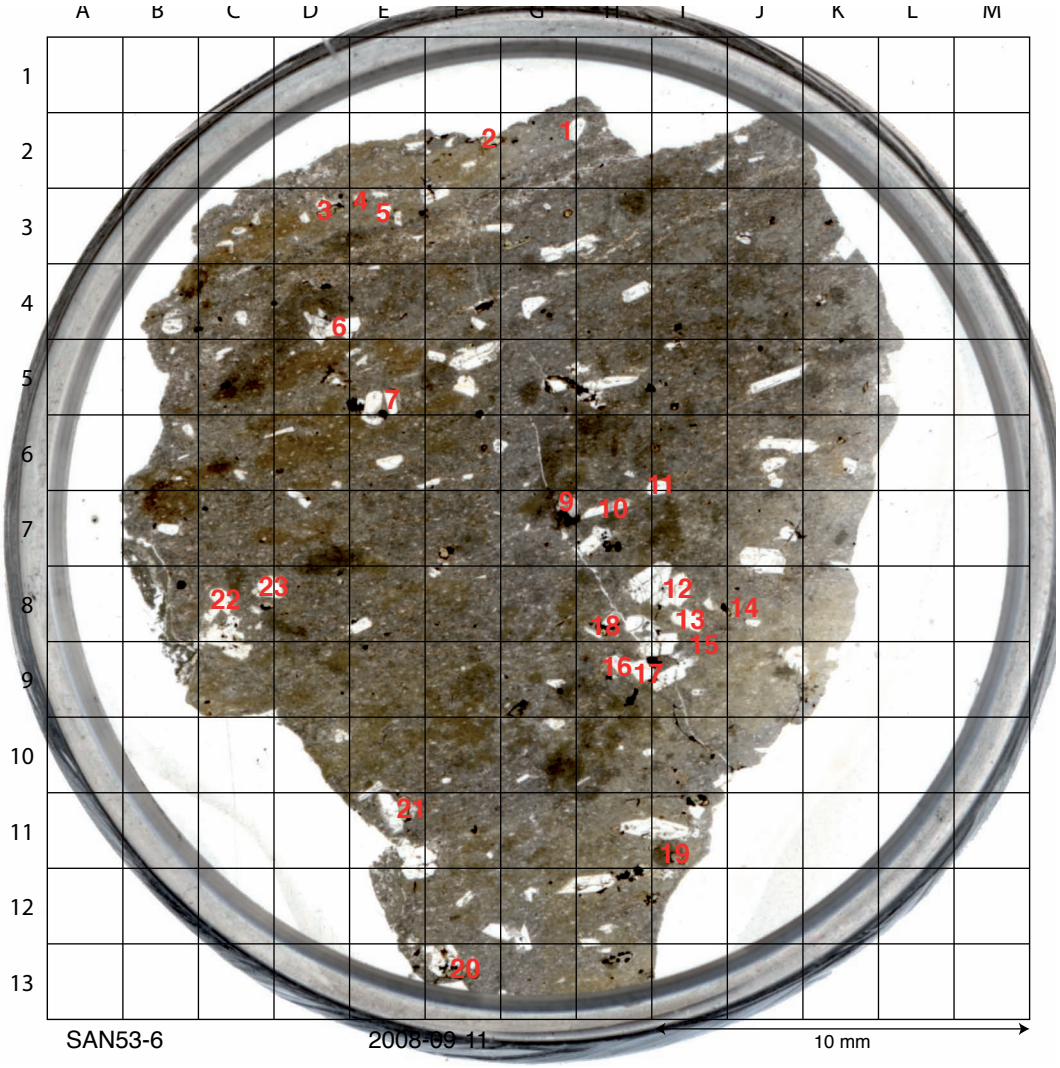


Fig. E.46. Scan of sample SAN53-6

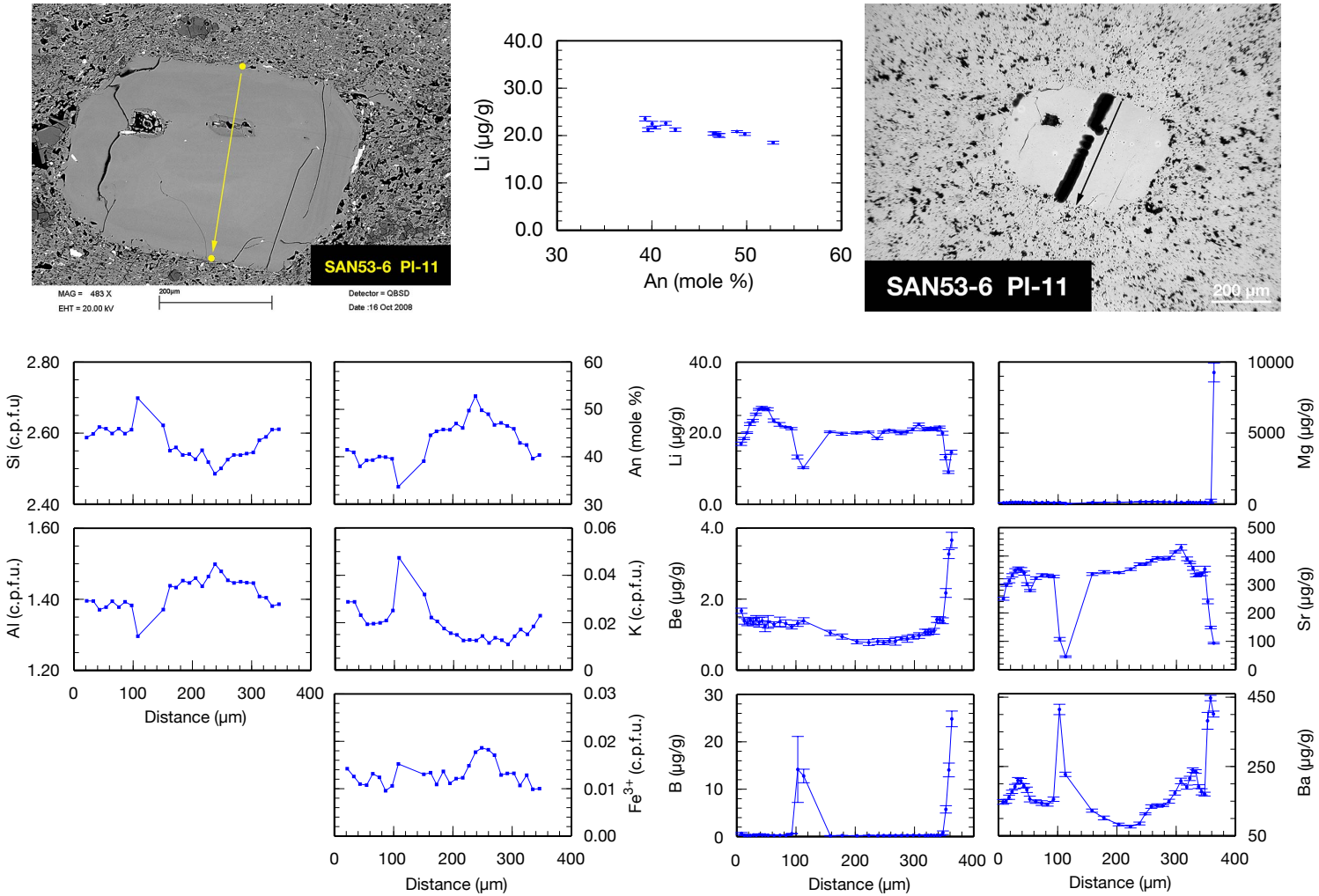


Fig. E.47. SAN53-6: Pl-11. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

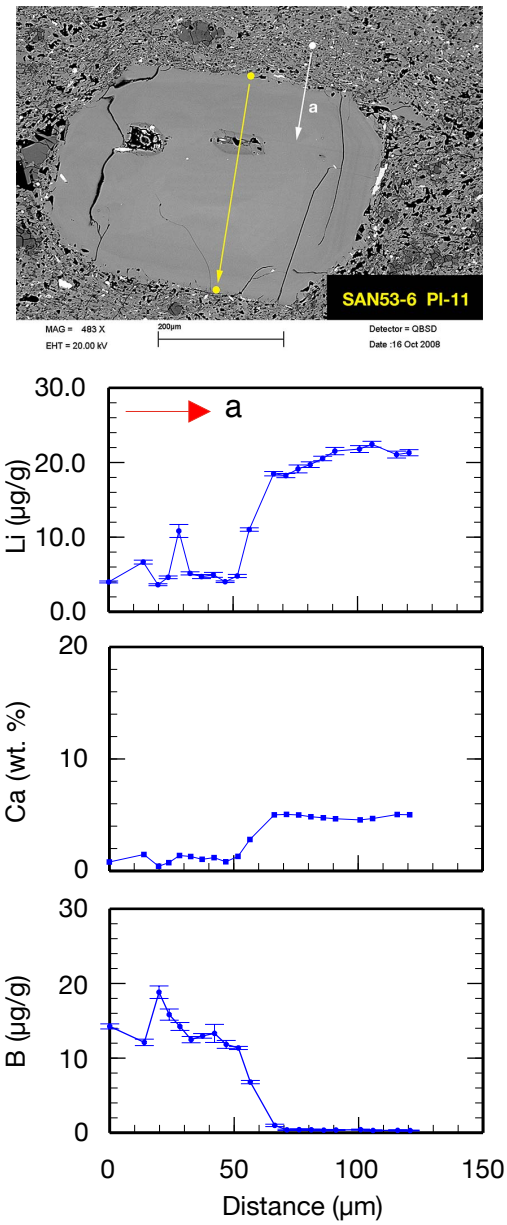


Fig. E.48. SAN53-6: Pl-11. A short SIMS profile was analyzed to detect Li concentrations in matrix adjacent to plagioclase.

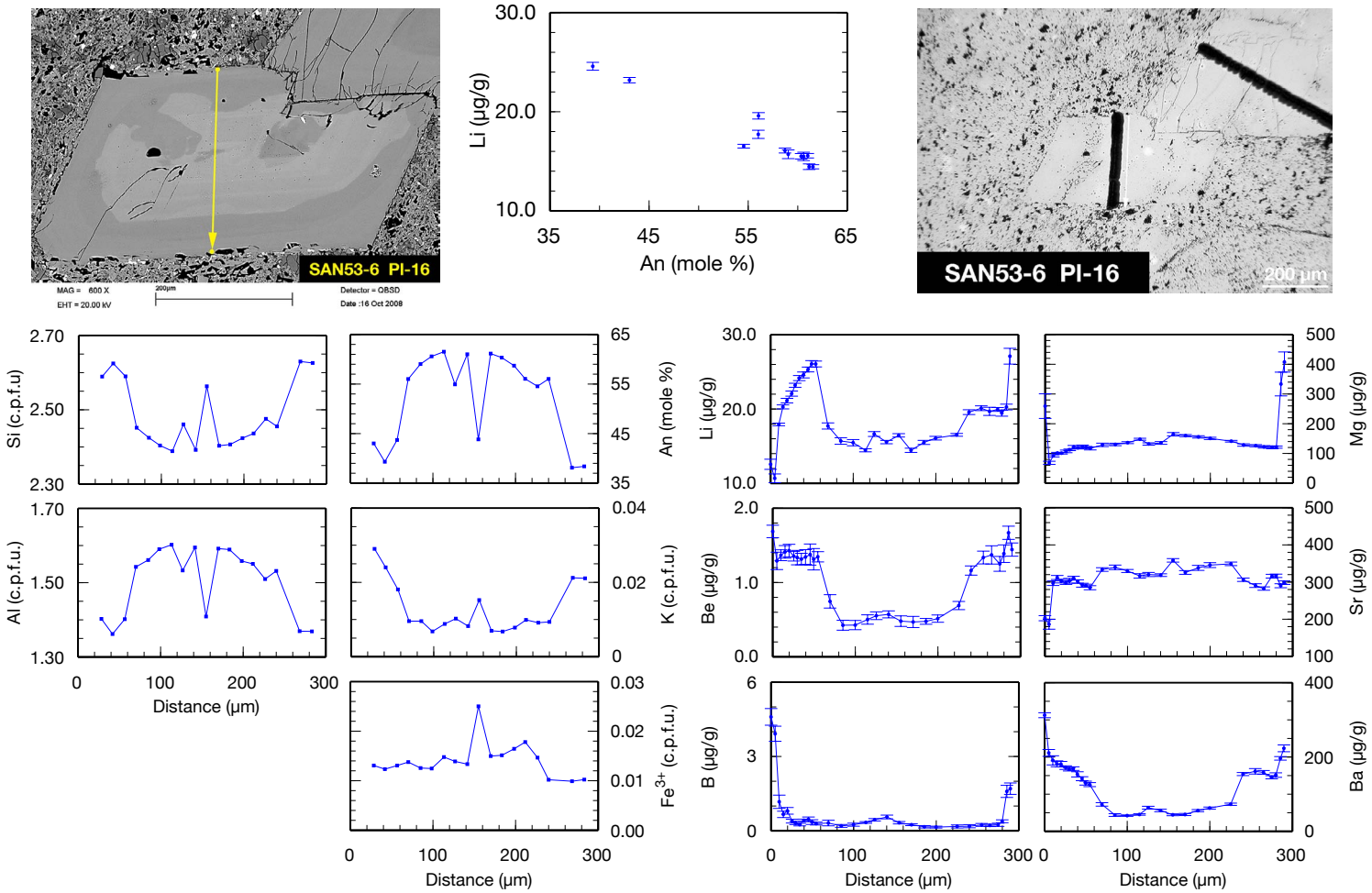


Fig. E.49. SAN53-6: Pl-16. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

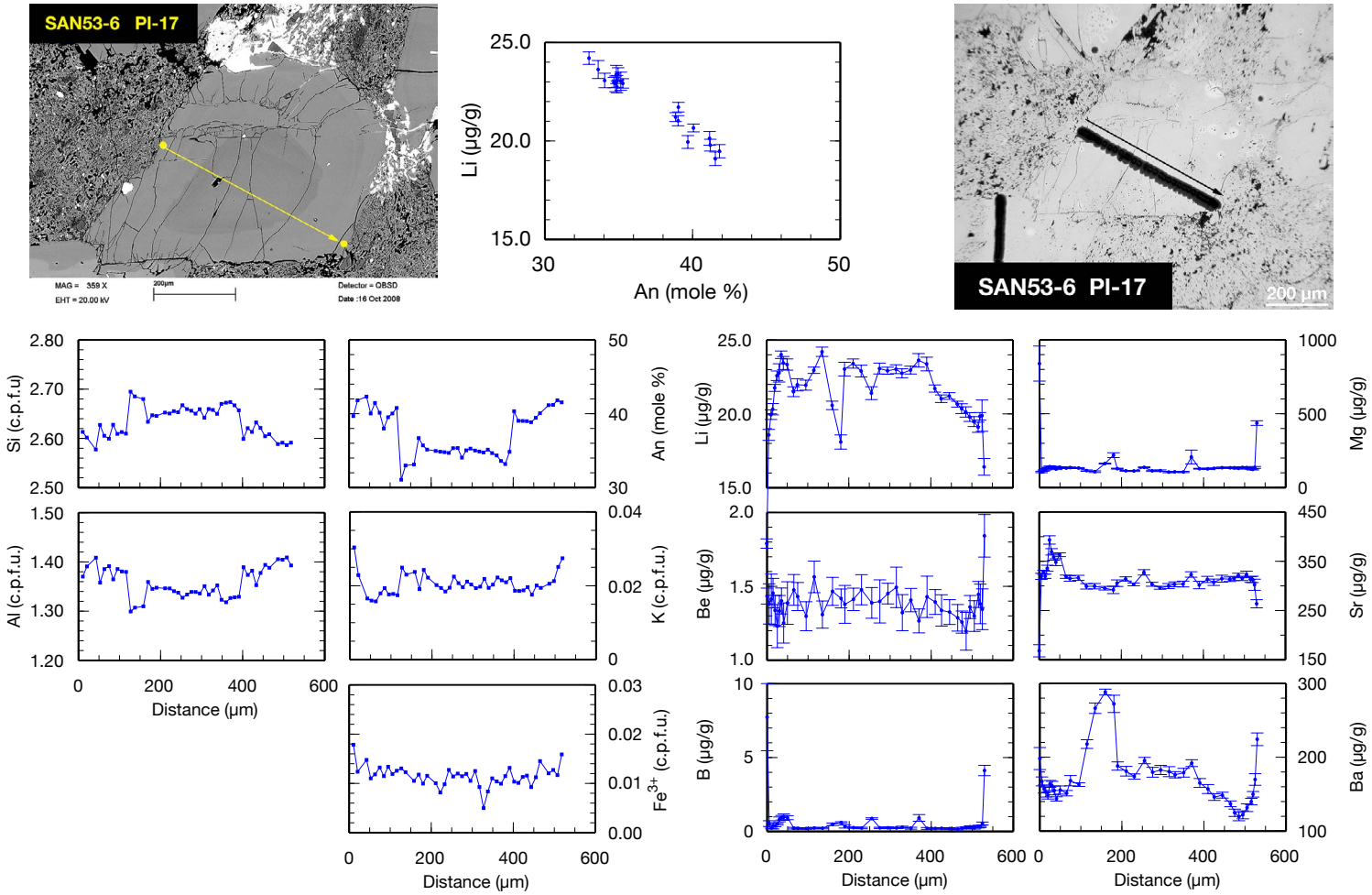


Fig. E.50. SAN53-6: Pl-17. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

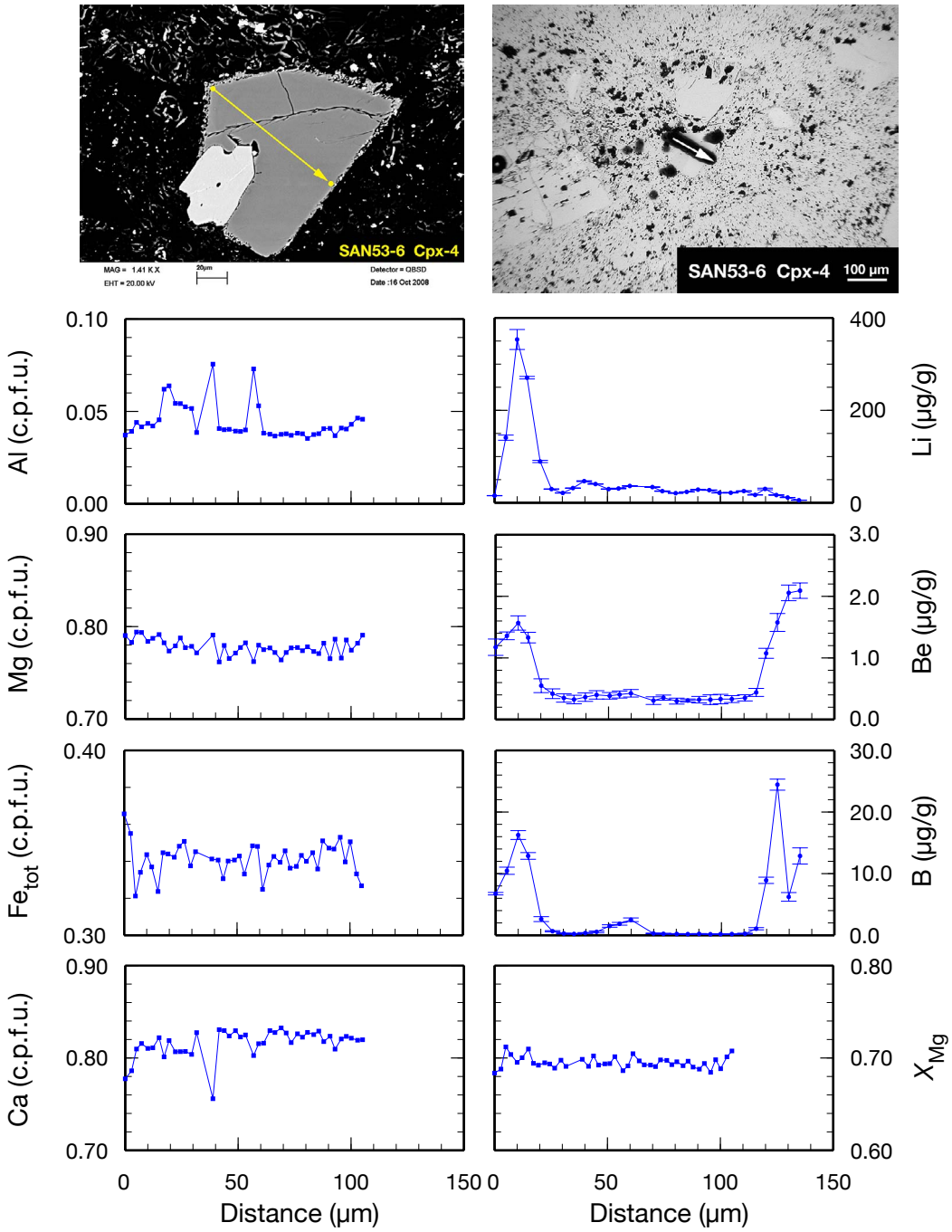


Fig. E.51. SAN53-6: Cpx-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

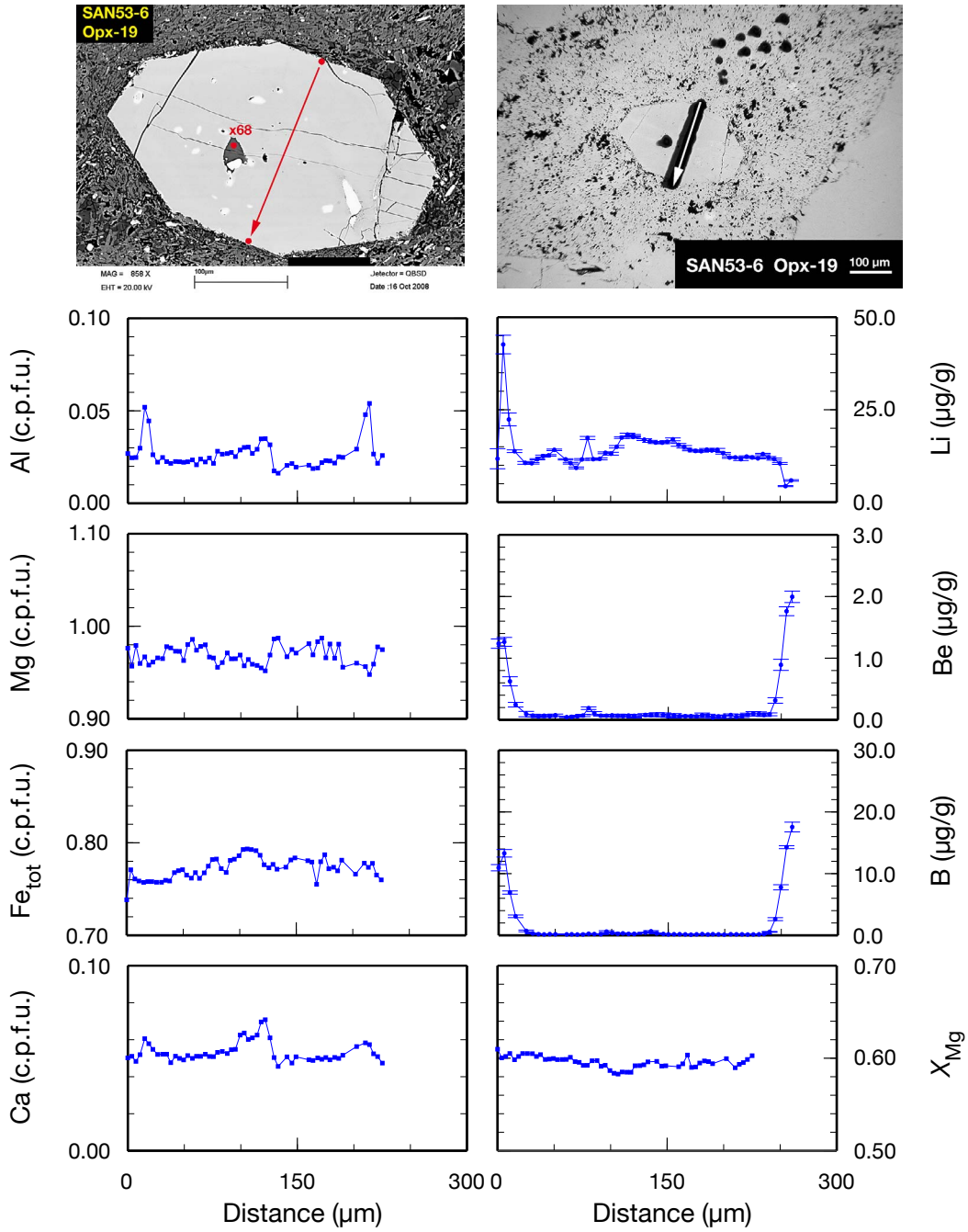


Fig. E.52. SAN53-6: Opx-19. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

E.0.32. Overview – SAN53-7

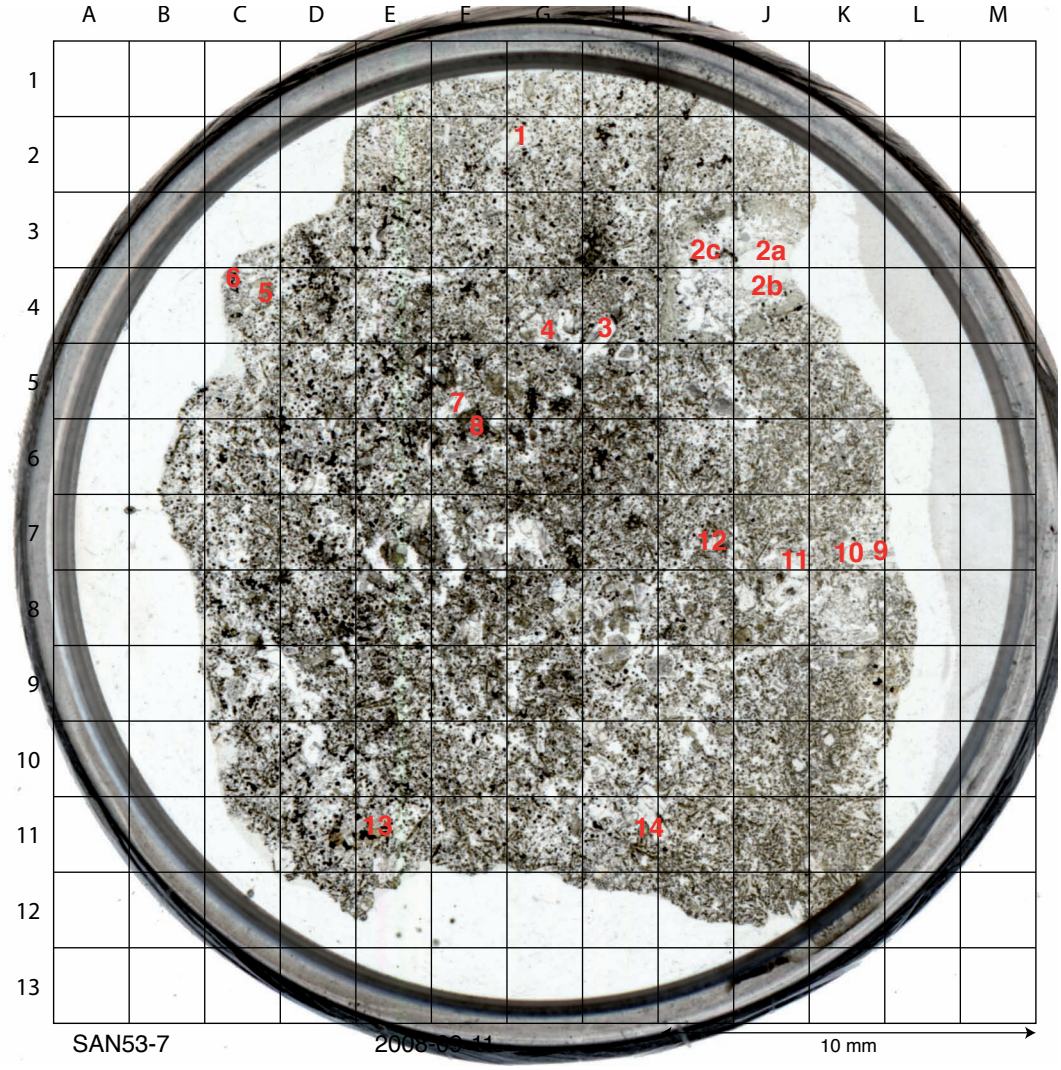


Fig. E.53. Scan of sample SAN53-7

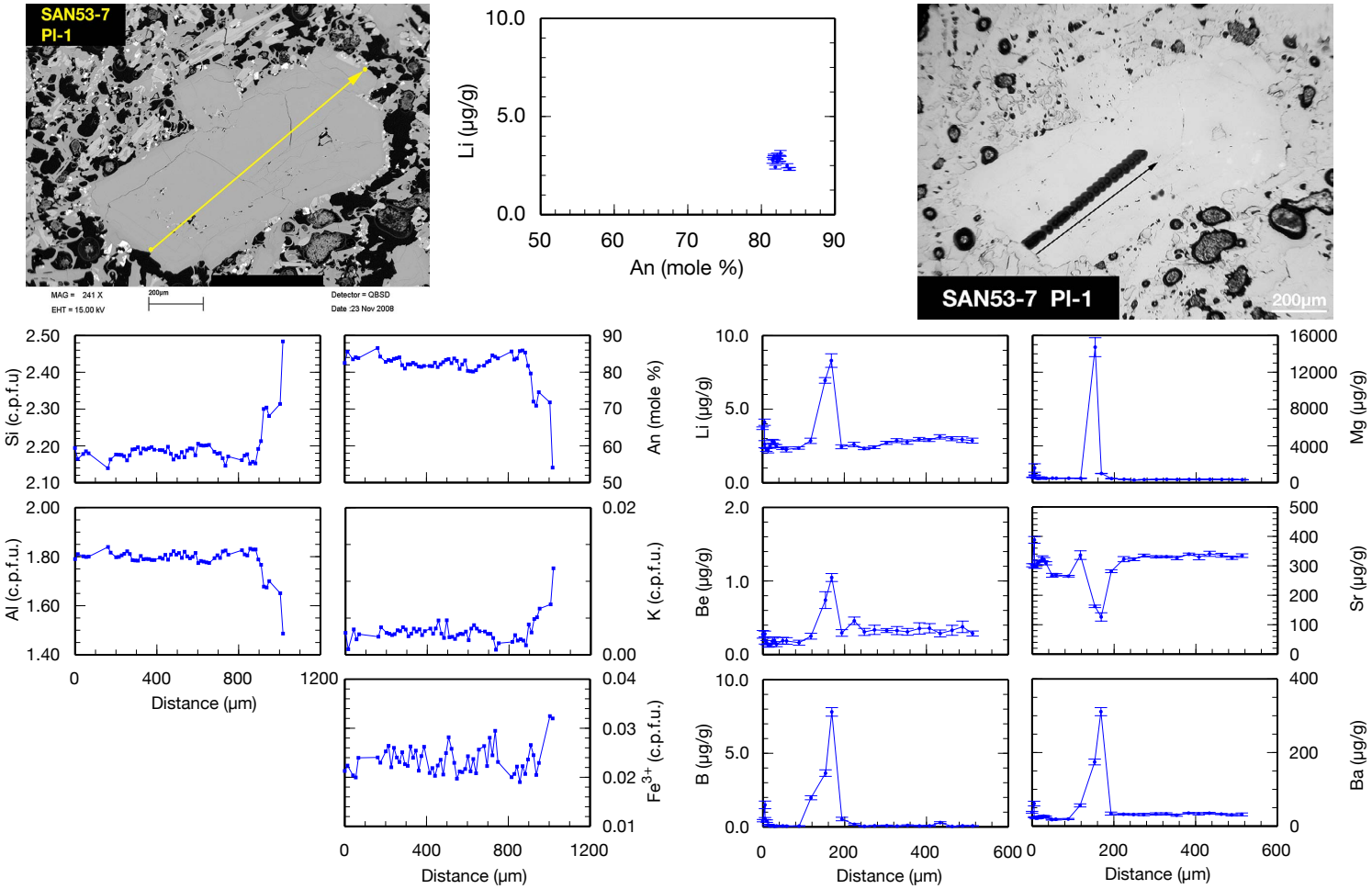


Fig. E.54. SAN53-7: Pl-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

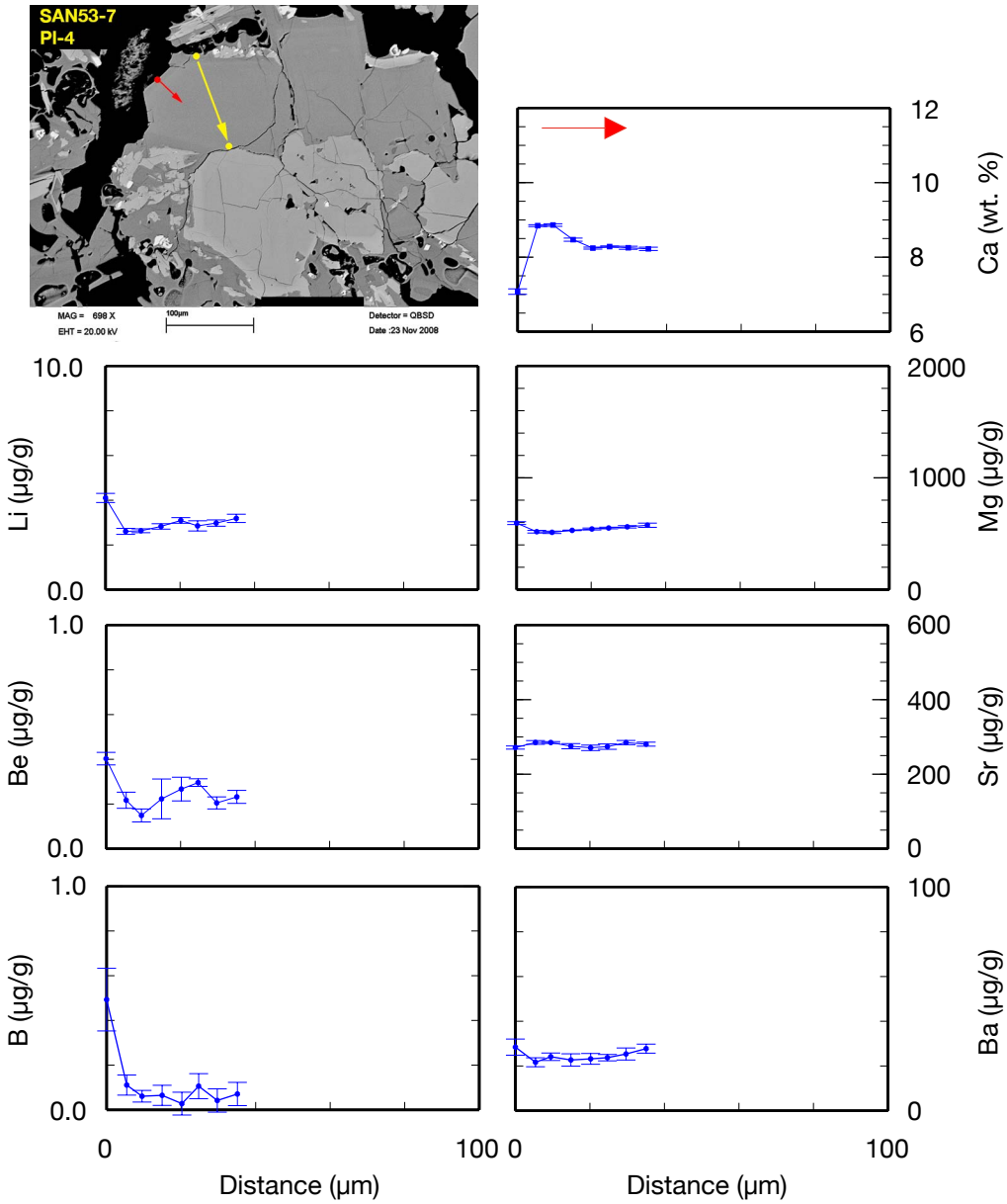


Fig. E.55. SAN53-7: Pl-4. A short SIMS profile was analyzed to detect or exclude Li diffusion from broken rims into plagioclase.

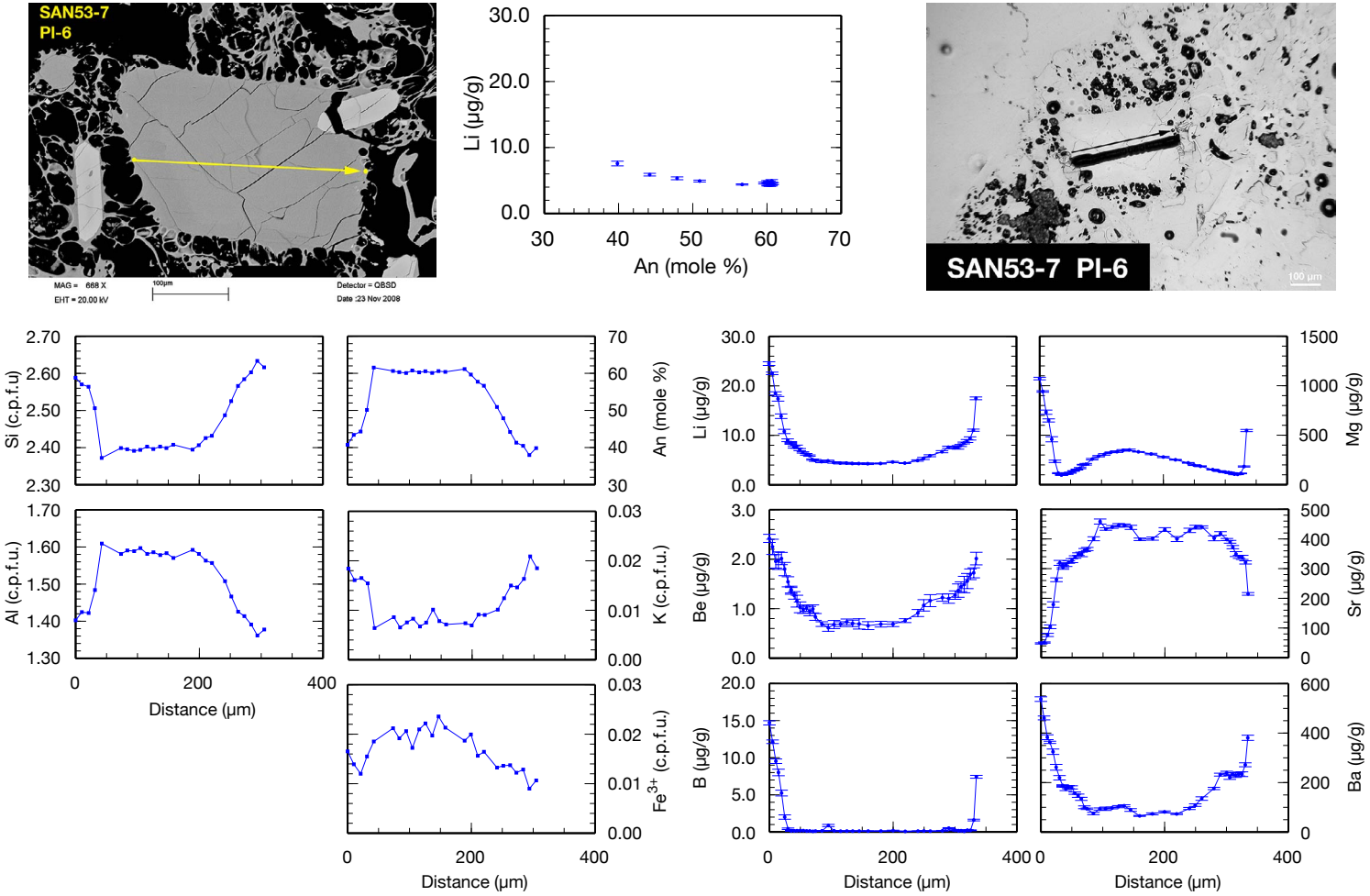


Fig. E.56. SAN53-7: Pl-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

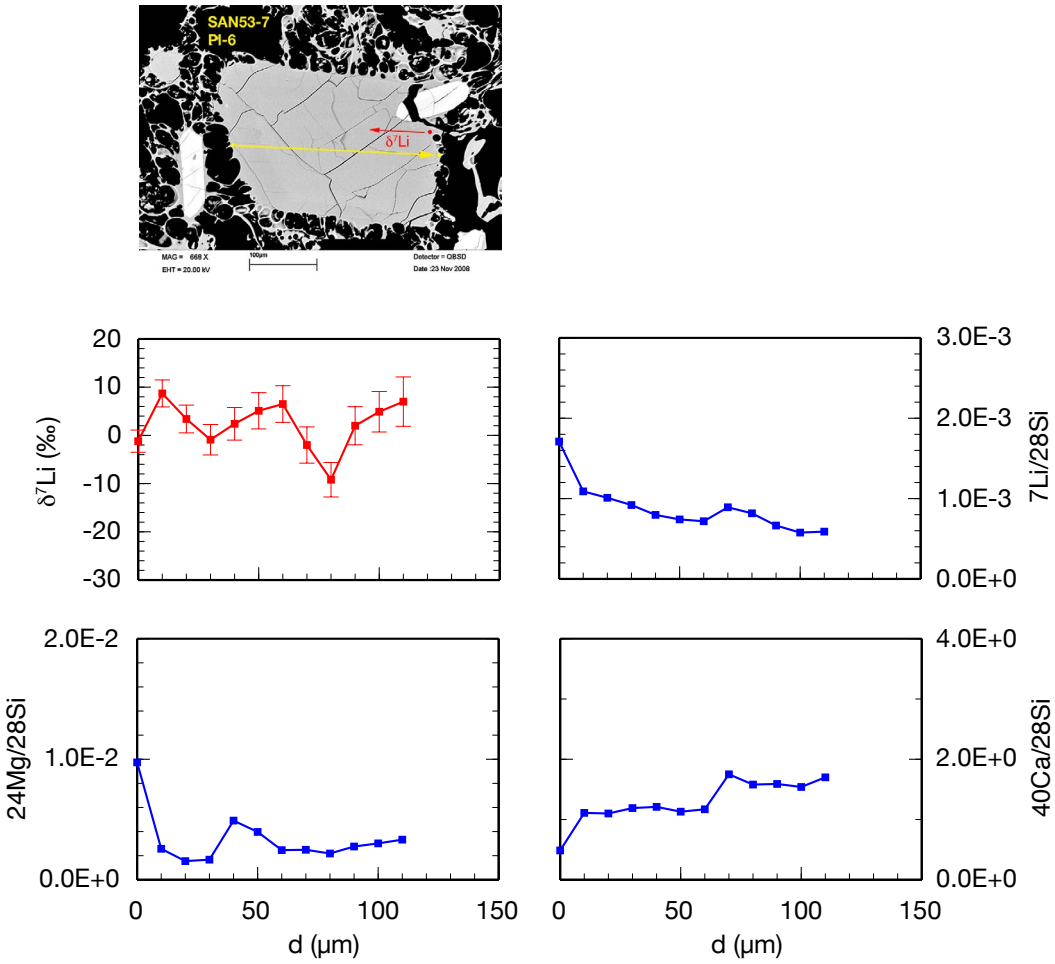


Fig. E.57. SAN53-7: Pl-6. Short δ^7Li SIMS profile. The red arrow marks the δ^7Li profile. A yellow arrow usually marks the EPMA profile (not all pl crystals were analyzed by EPMA). Li concentration values are derived from count rates of the isotope analyses and are therefore only semi-quantitative.

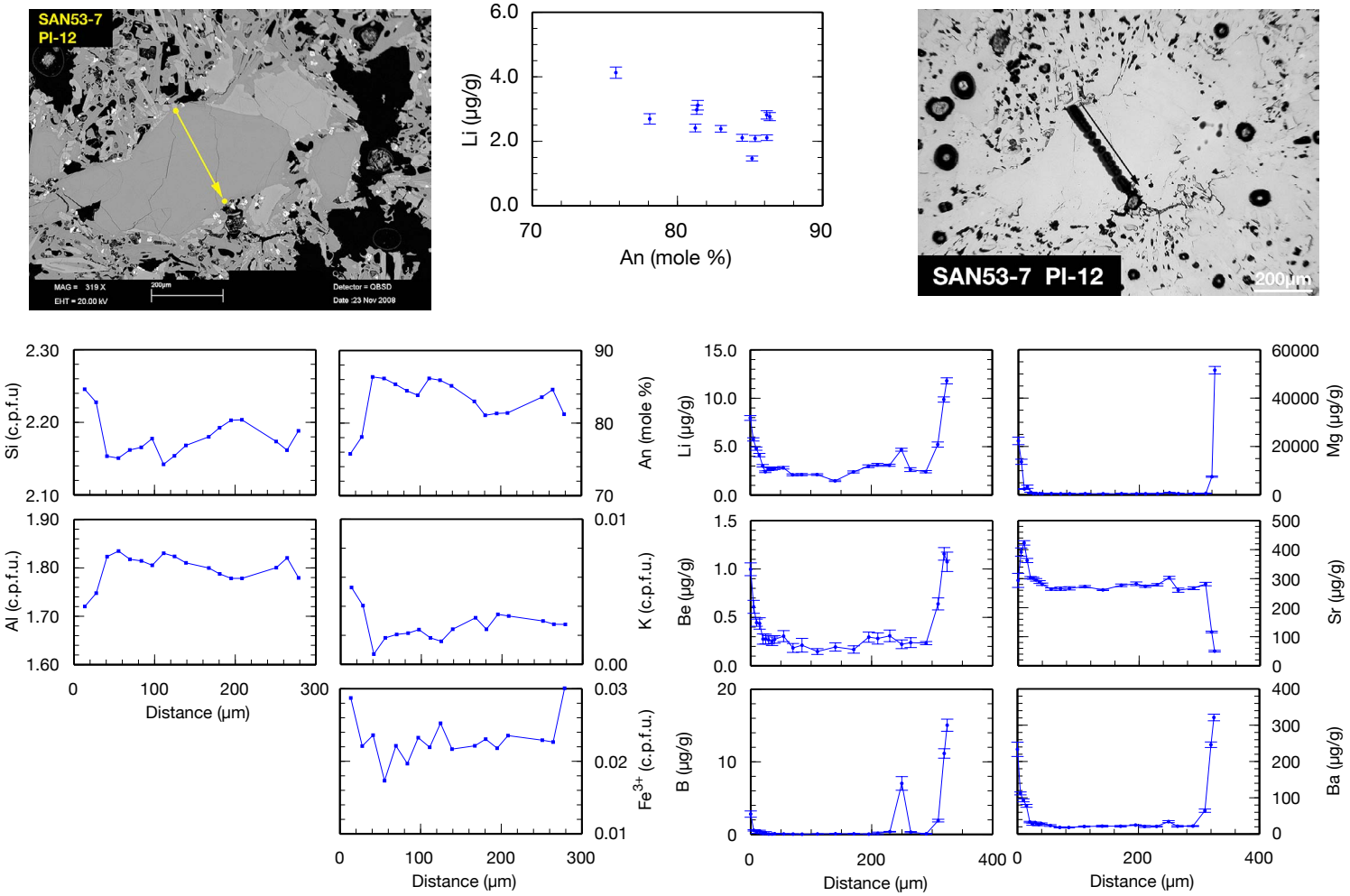


Fig. E.58. SAN53-7: Pl-12. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

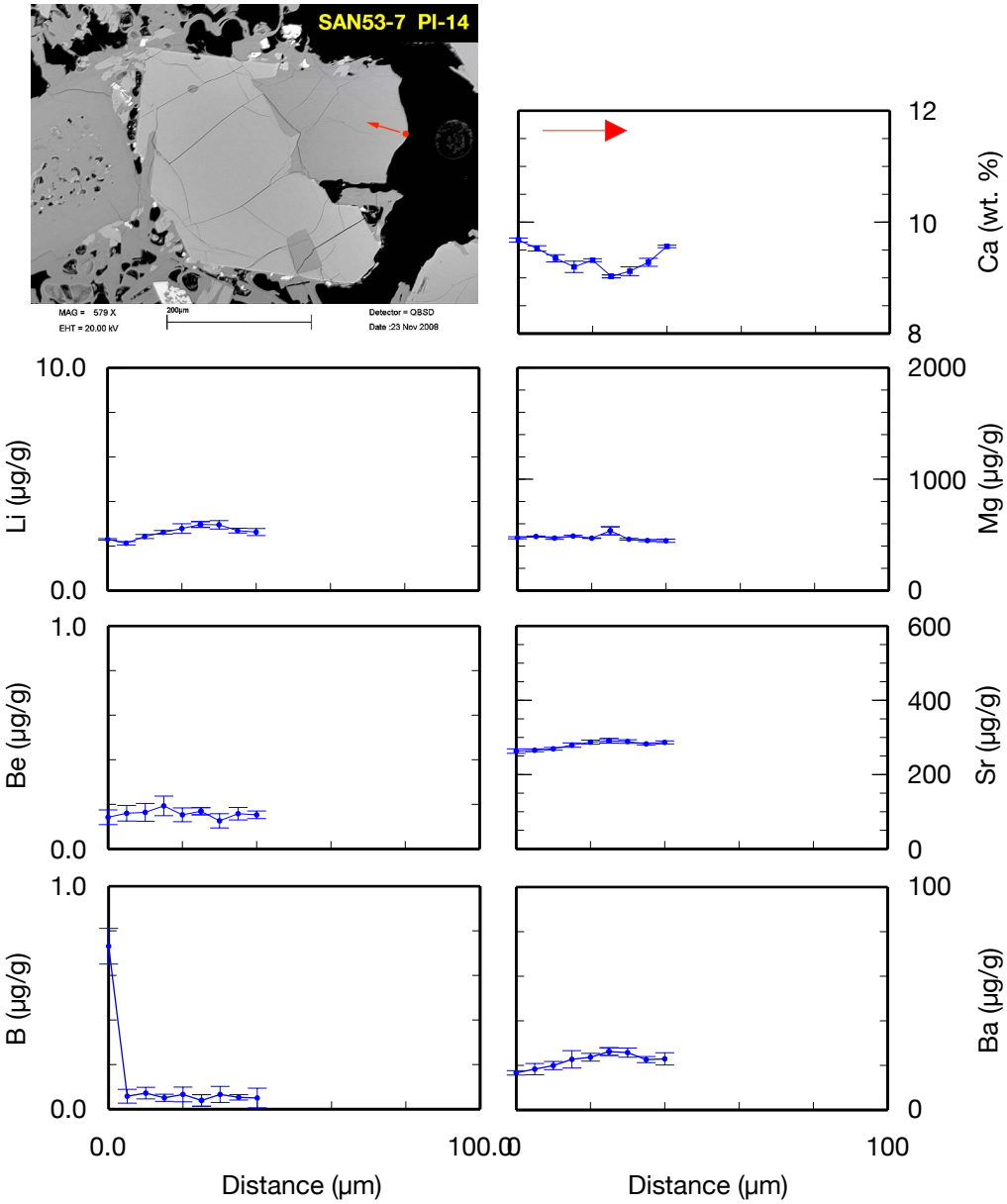


Fig. E.59. SAN53-7: Pl-14. A short SIMS profile was analyzed to detect or exclude Li diffusion from broken rims into plagioclase.

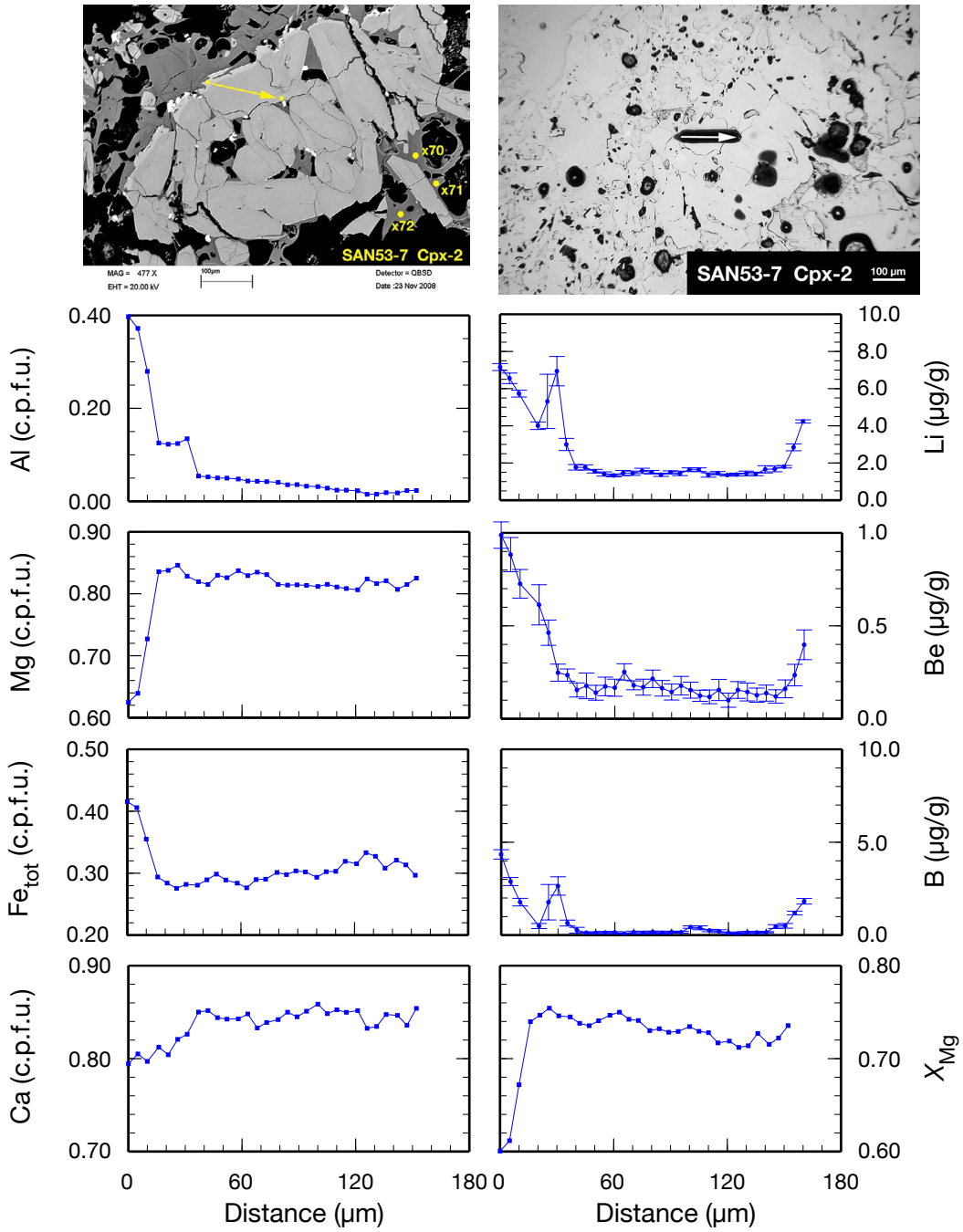


Fig. E.60. SAN53-7: Cpx-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

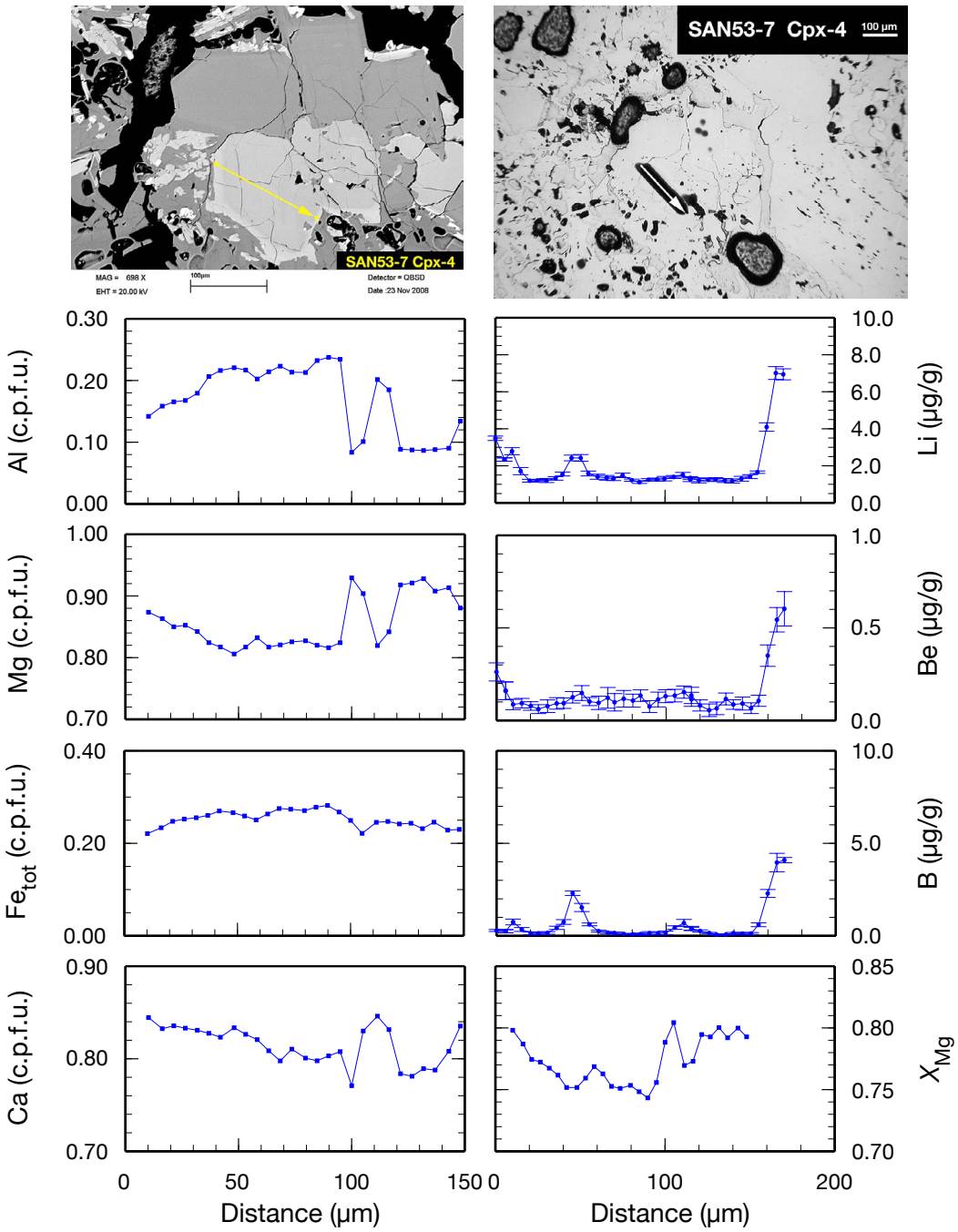


Fig. E.61. SAN53-7: Cpx-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.

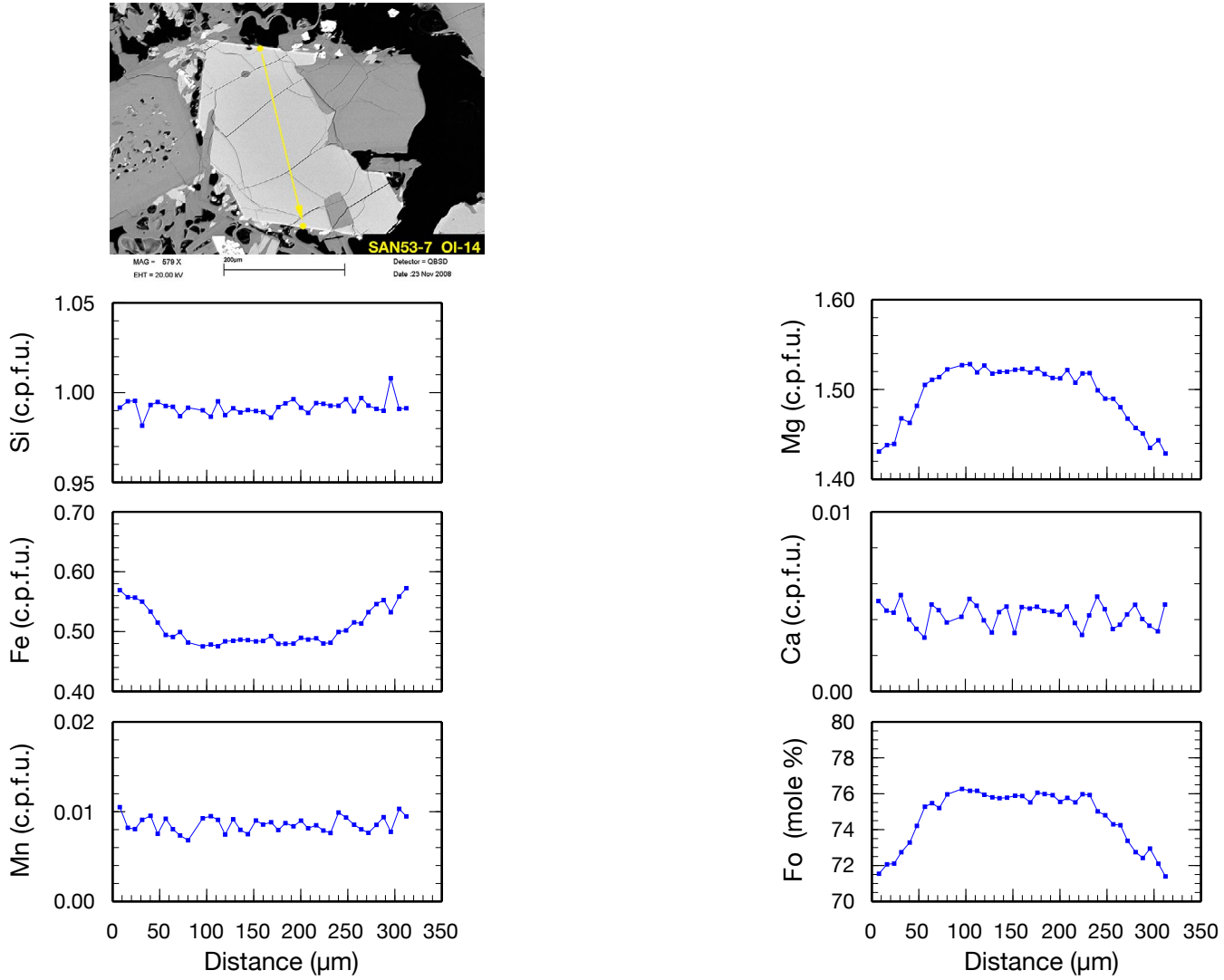


Fig. E.62. SAN53-7: Ol-14. EPMA profiles. Formulas of EPMA analyses for ol are calculated to 4 oxygens.

E.0.33. Overview – SAN56-1

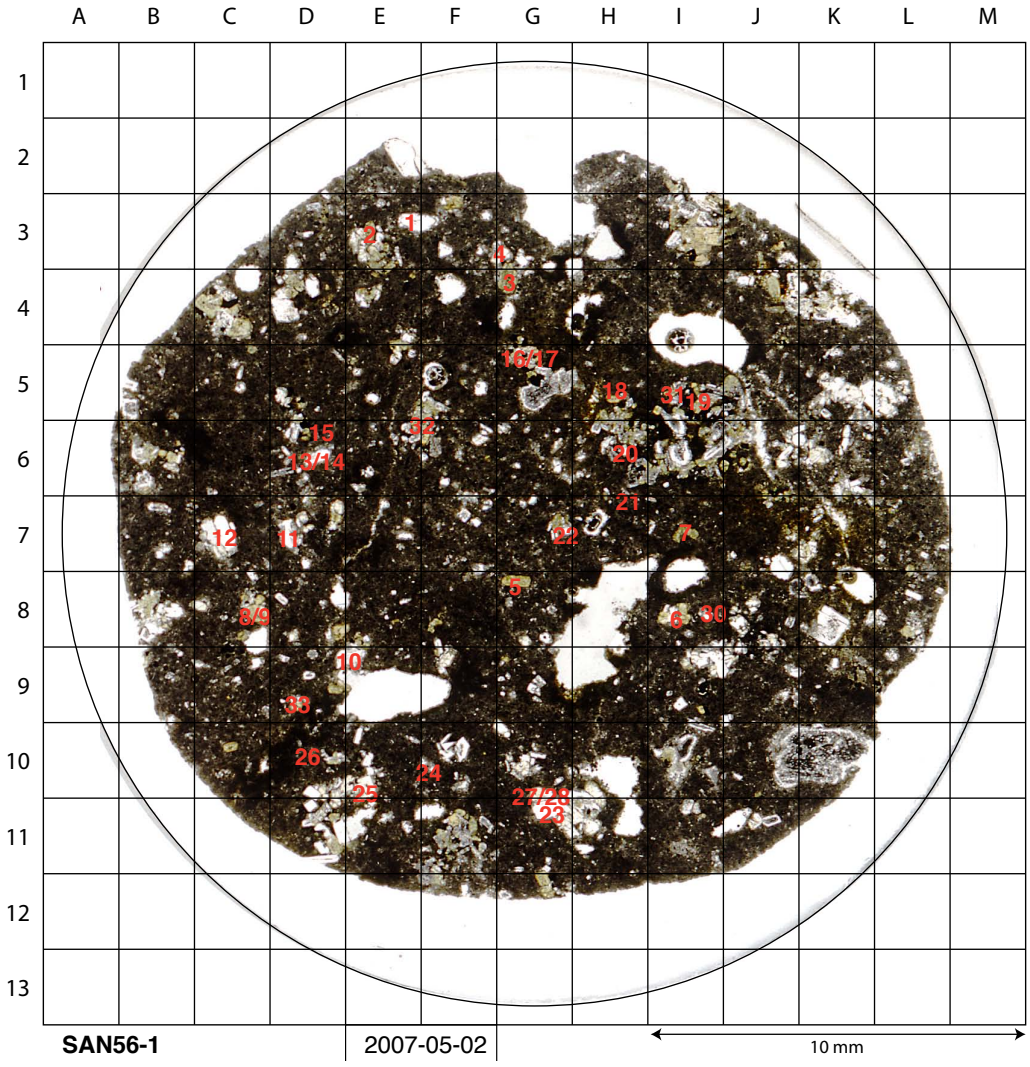


Fig. E.63. Scan of sample SAN56-1

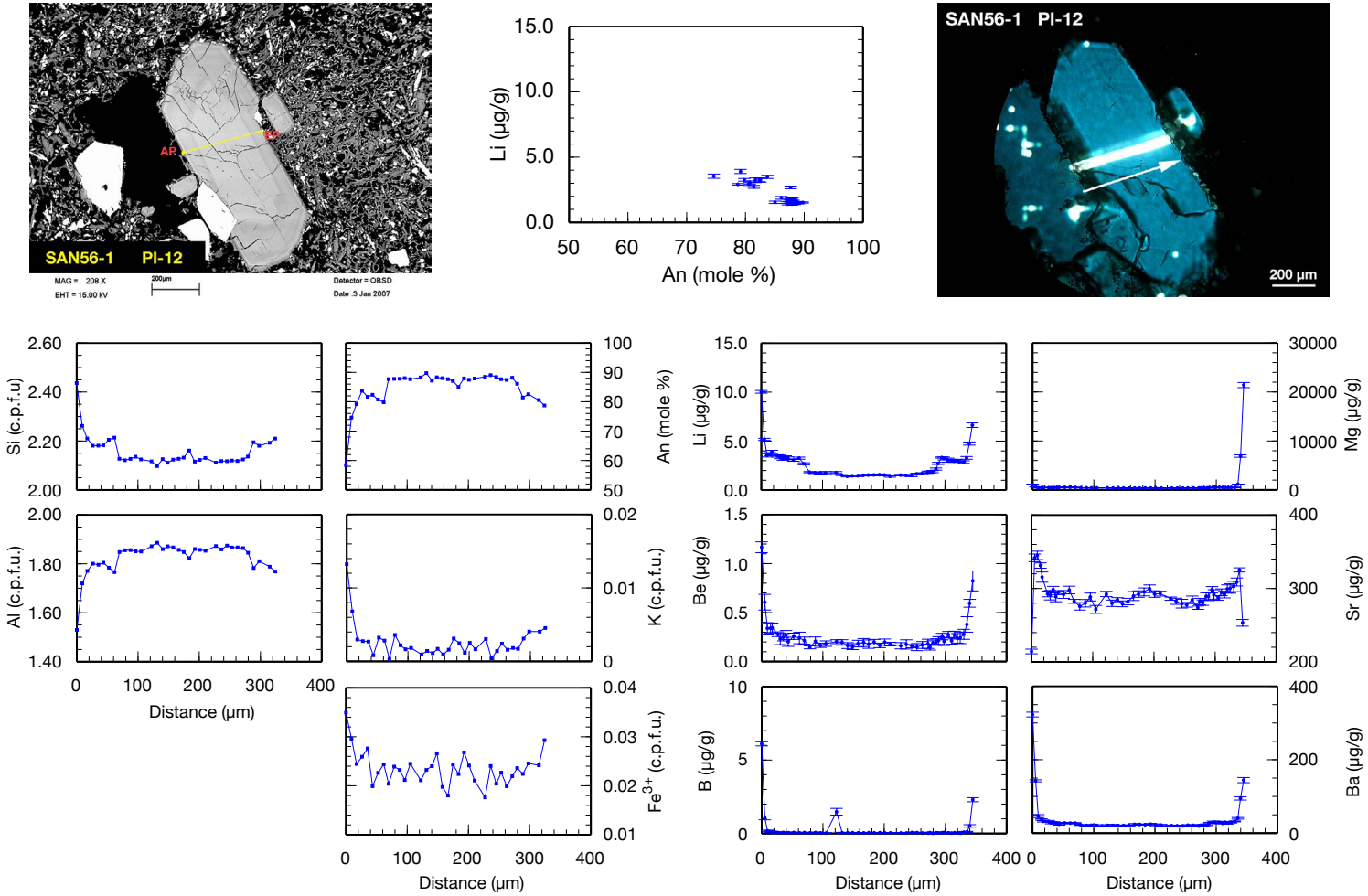


Fig. E.64. SAN56-1: Pl-12. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

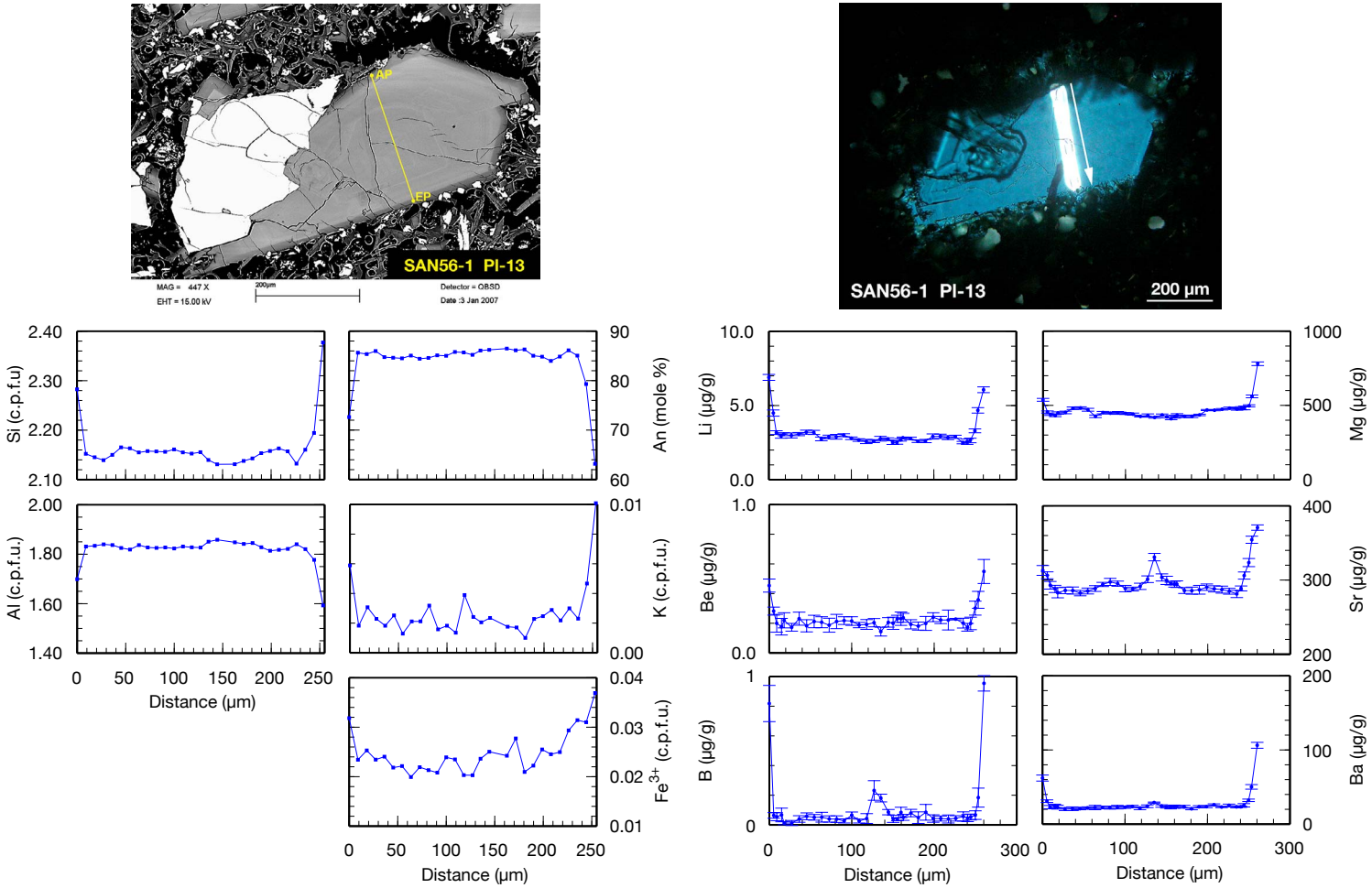


Fig. E.65. SAN56-1: Pl-13. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

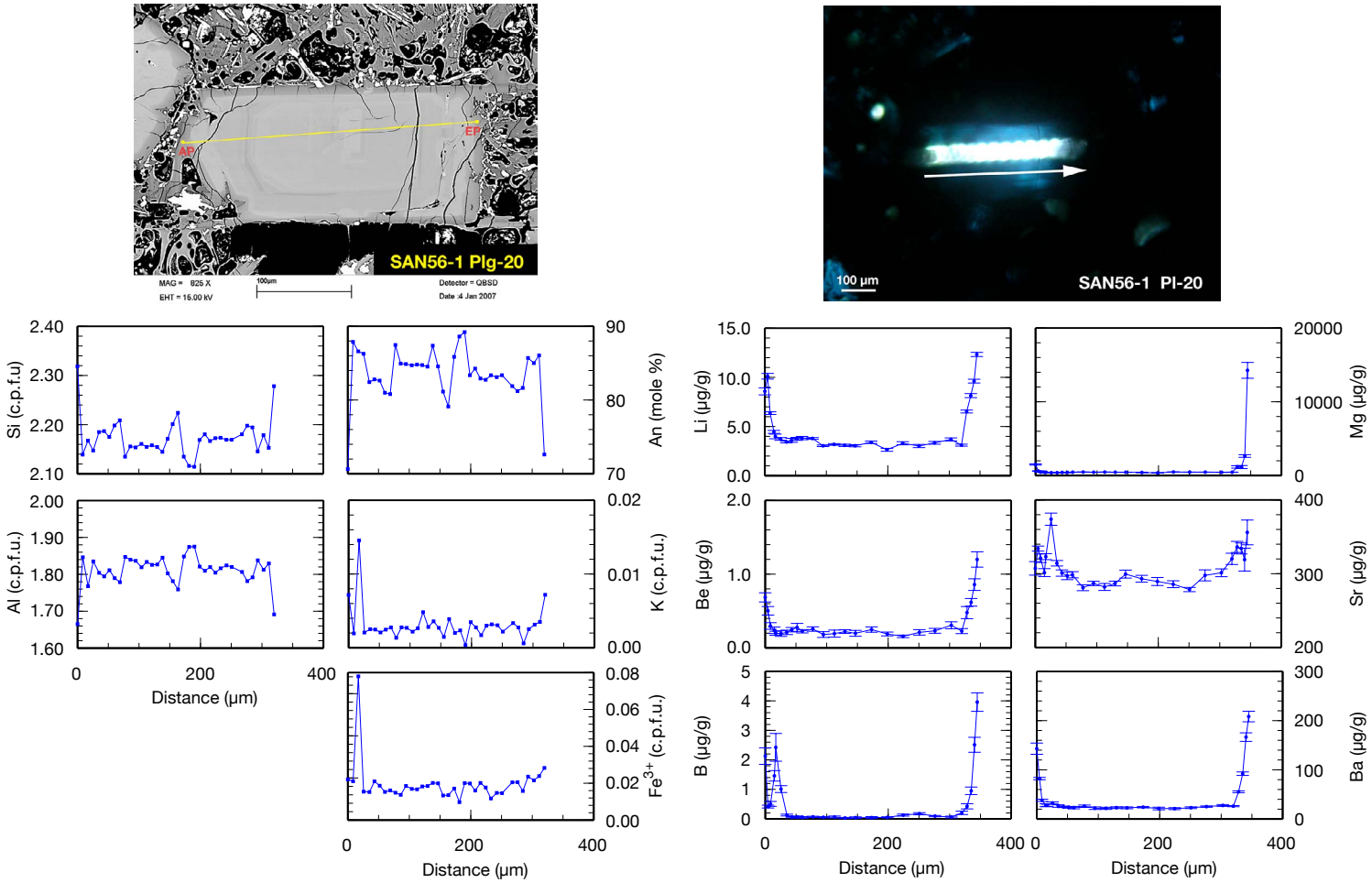


Fig. E.66. SAN56-1: Pl-20. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

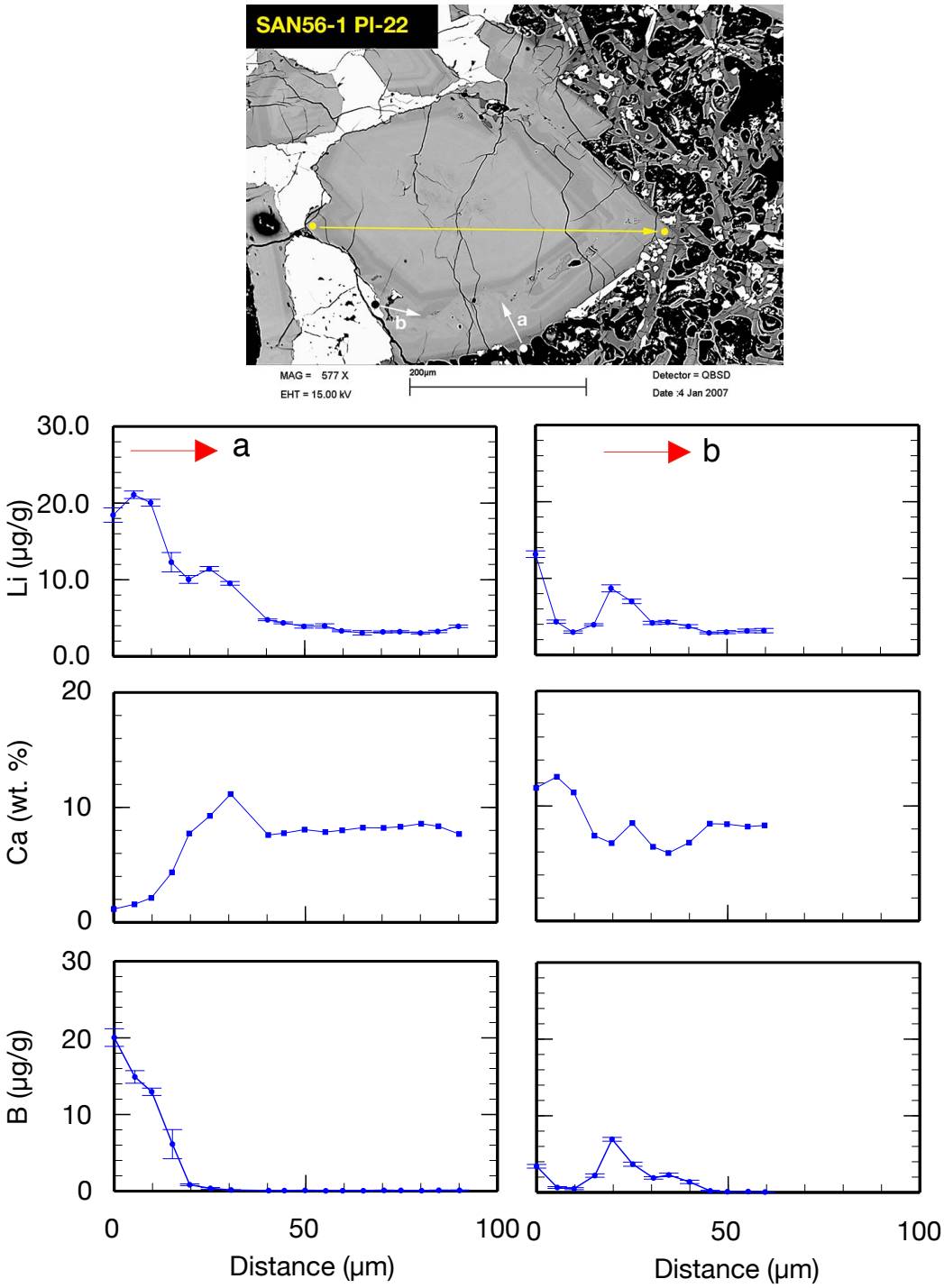
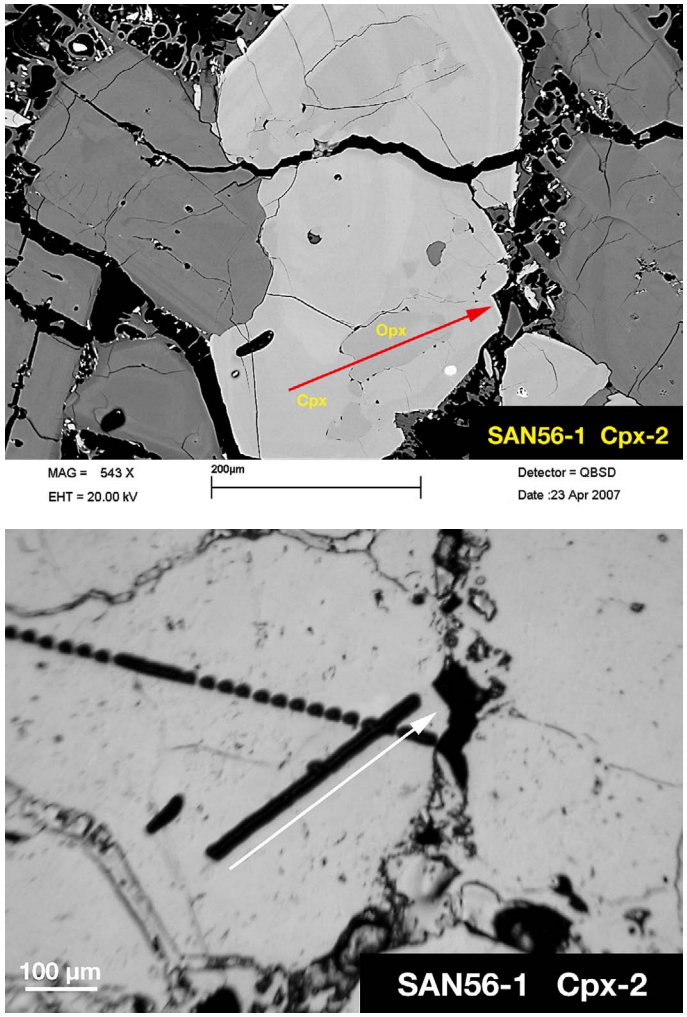


Fig. E.67. SAN56-1: Pl-22. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.



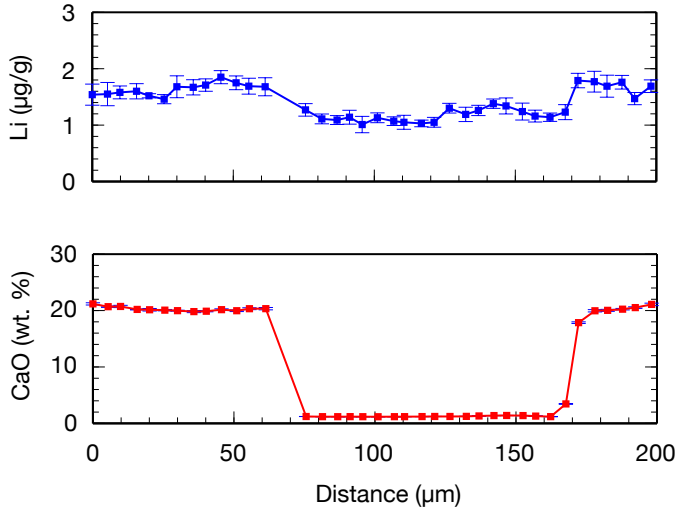
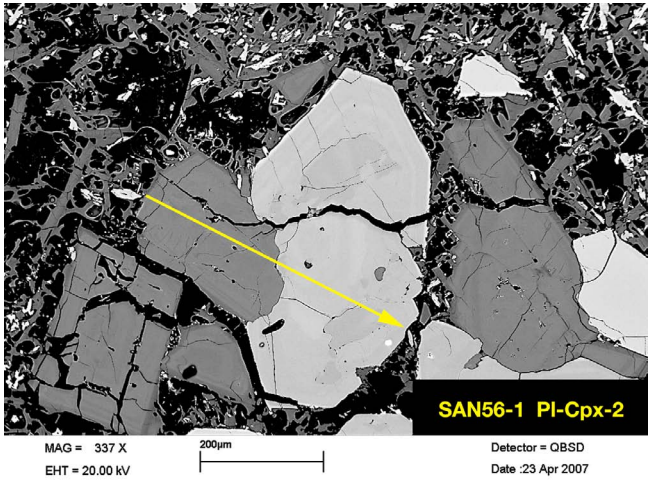
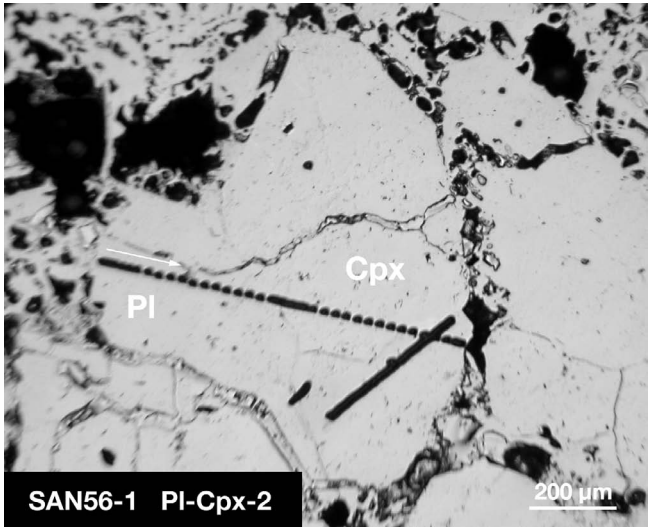


Fig. E.68. SAN56-1: Cpx-2. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.





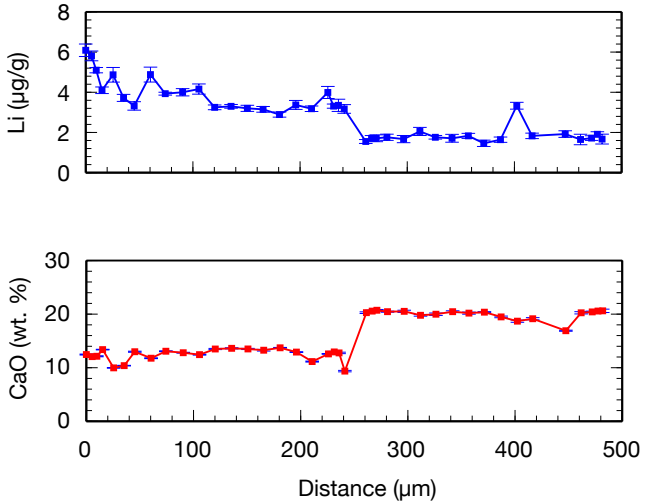


Fig. E.69. SAN56-1: Pl-Cpx-2. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.

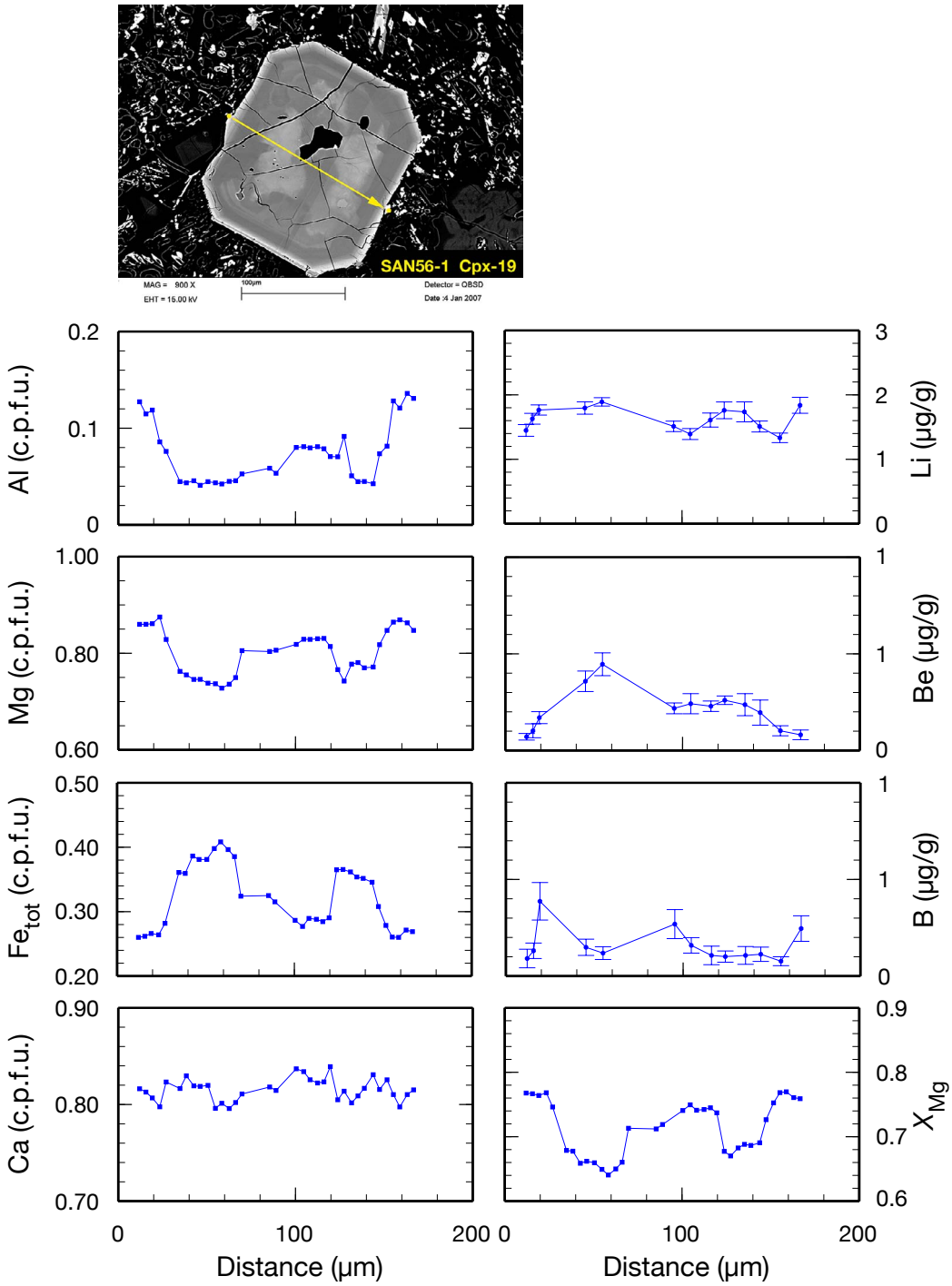
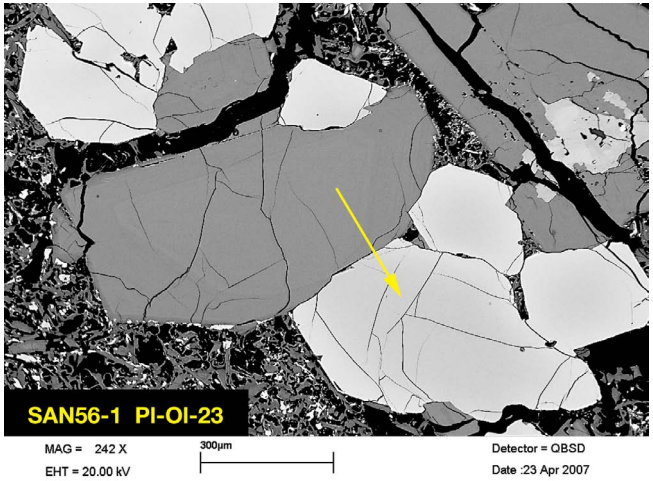
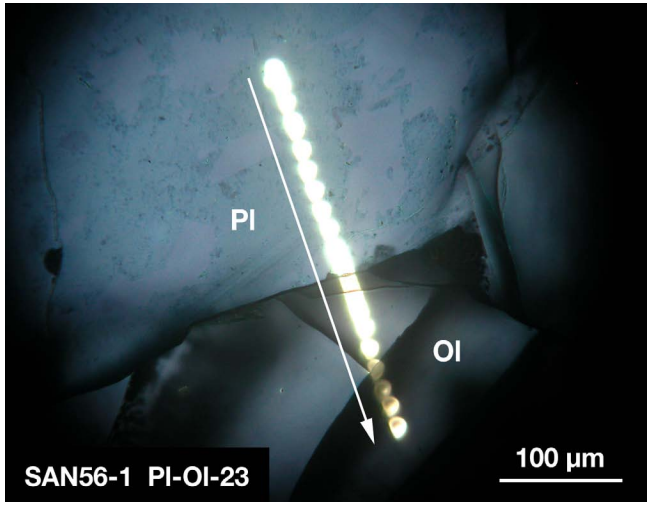


Fig. E.70. SAN56-1: Cpx-19. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.





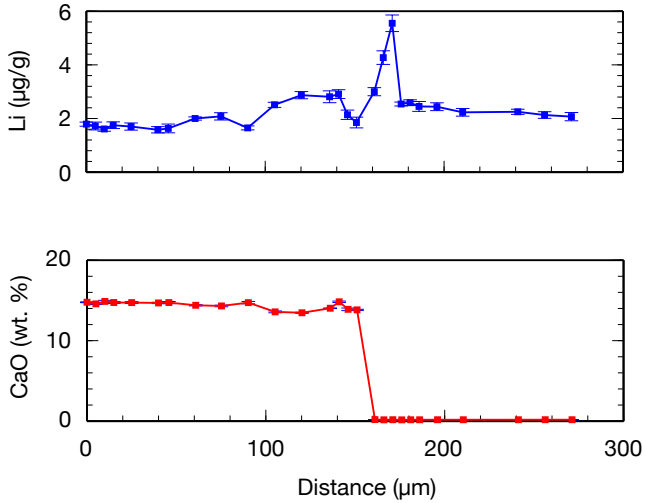


Fig. E.71. SAN56-1: Pl-Ol-23. EPMA and SIMS profiles. Formulas of EPMA analyses for ol are calculated to 4 oxygens; EPMA analyses for pl are calculated to 8 oxygens.

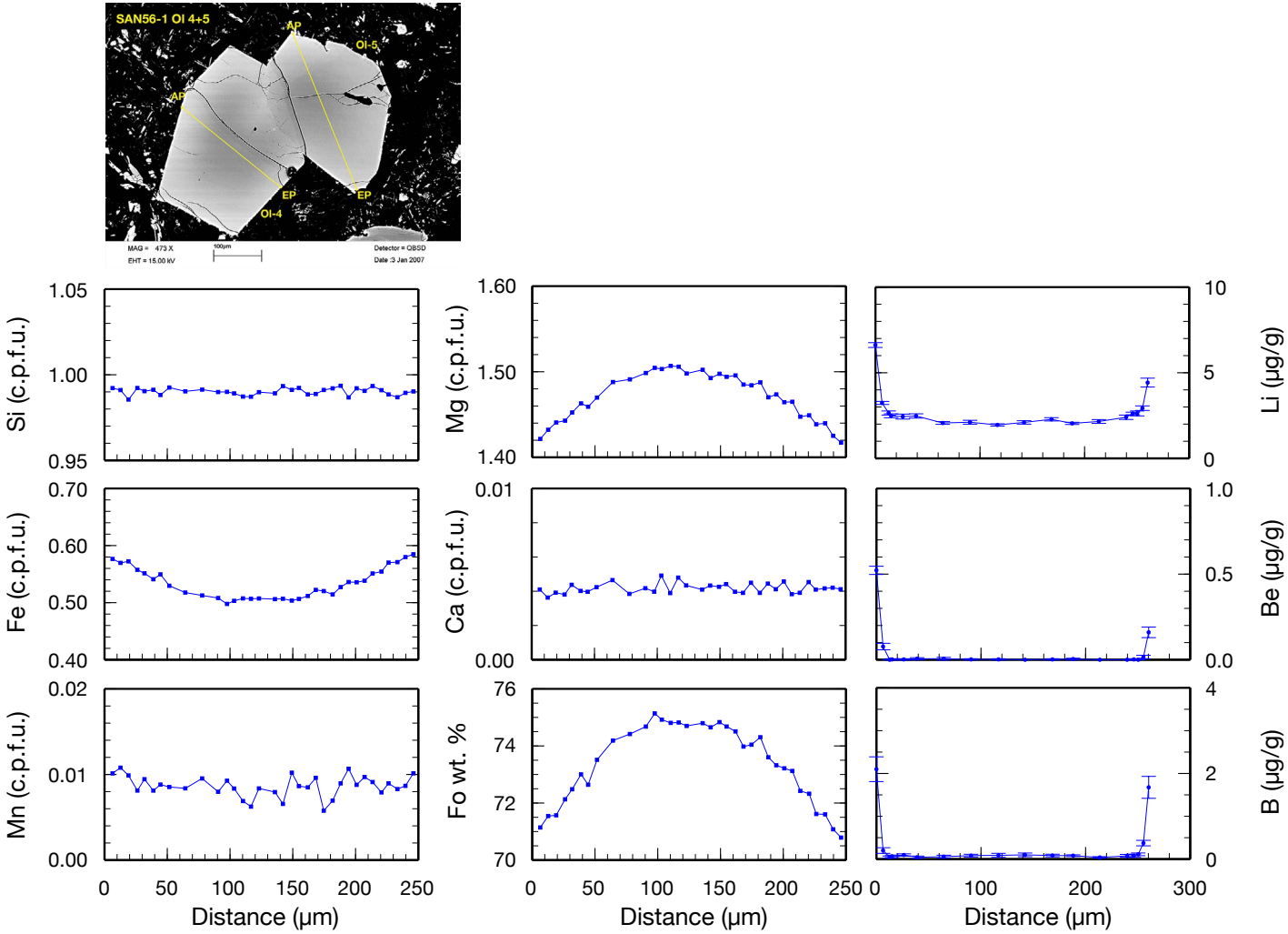


Fig. E.72. SAN56-1: Ol-4. EPMA and SIMS profiles. Formulas of EPMA analyses for ol are calculated to 4 oxygens.

E.0.34. Overview – SAN60

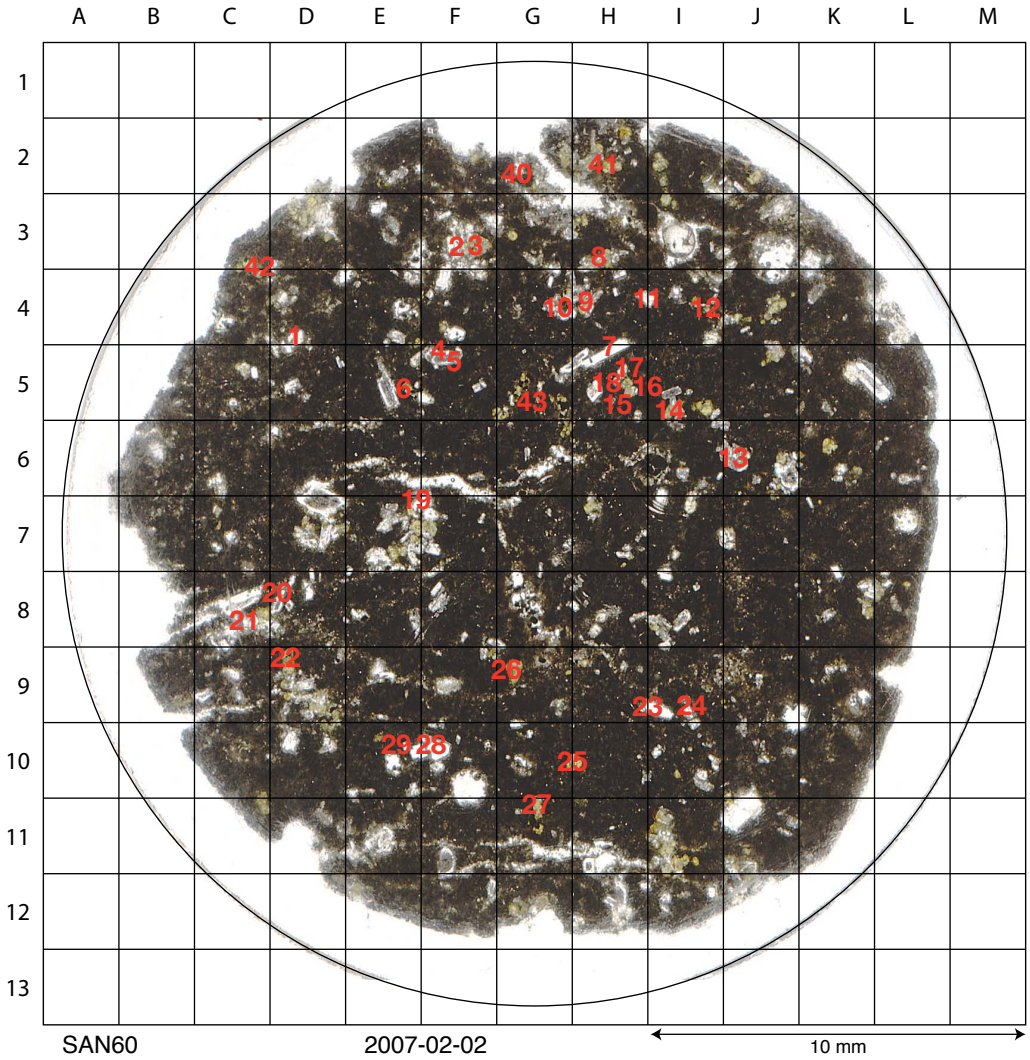


Fig. E.73. Scan of sample SAN60

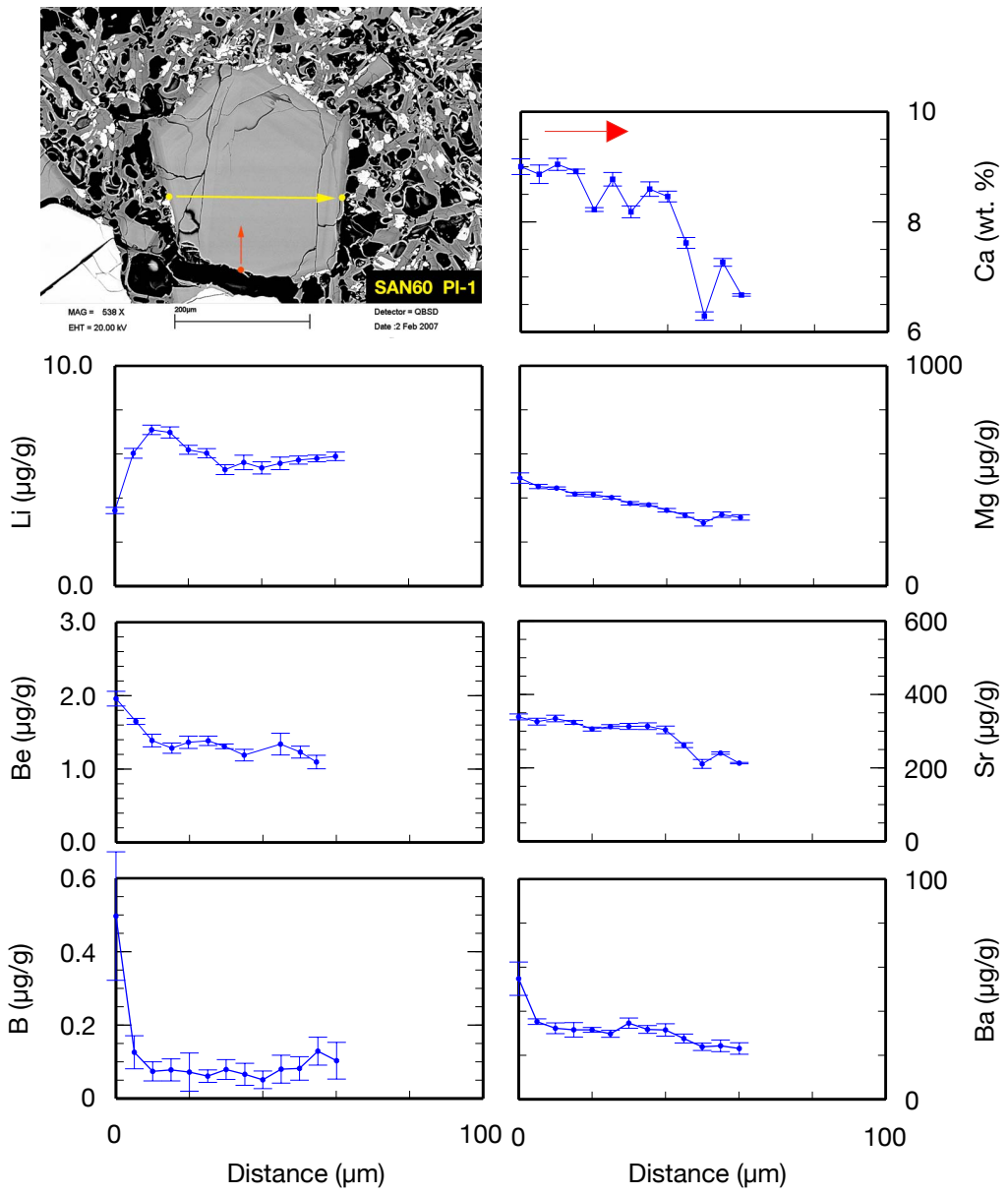
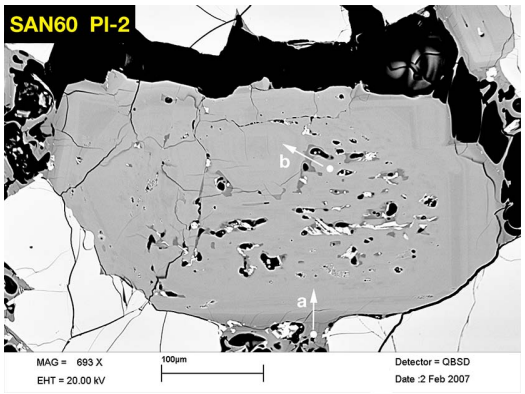


Fig. E.74. SAN60: Pl-1. A short SIMS profile was analyzed to detect or exclude Li diffusion from broken rims into plagioclase.



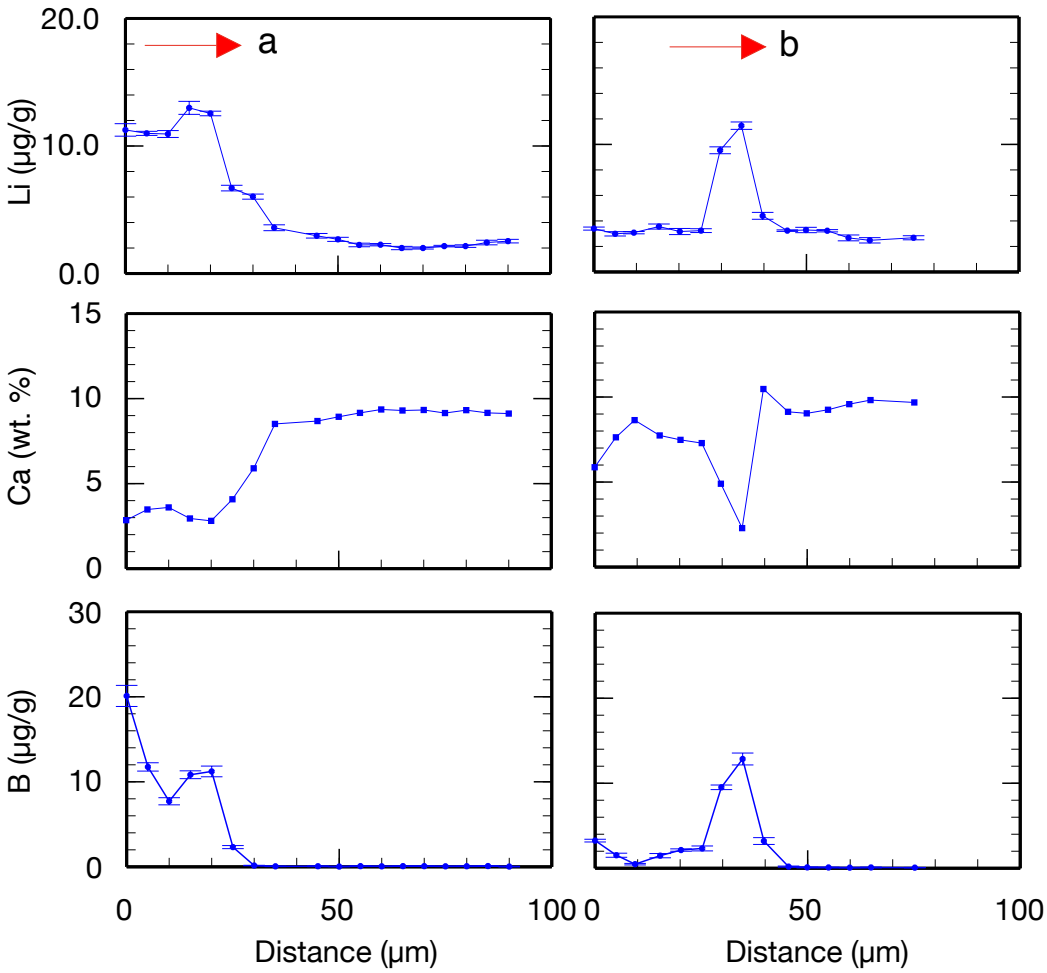


Fig. E.75. SAN60: Pl-2. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages or inclusions into plagioclase.

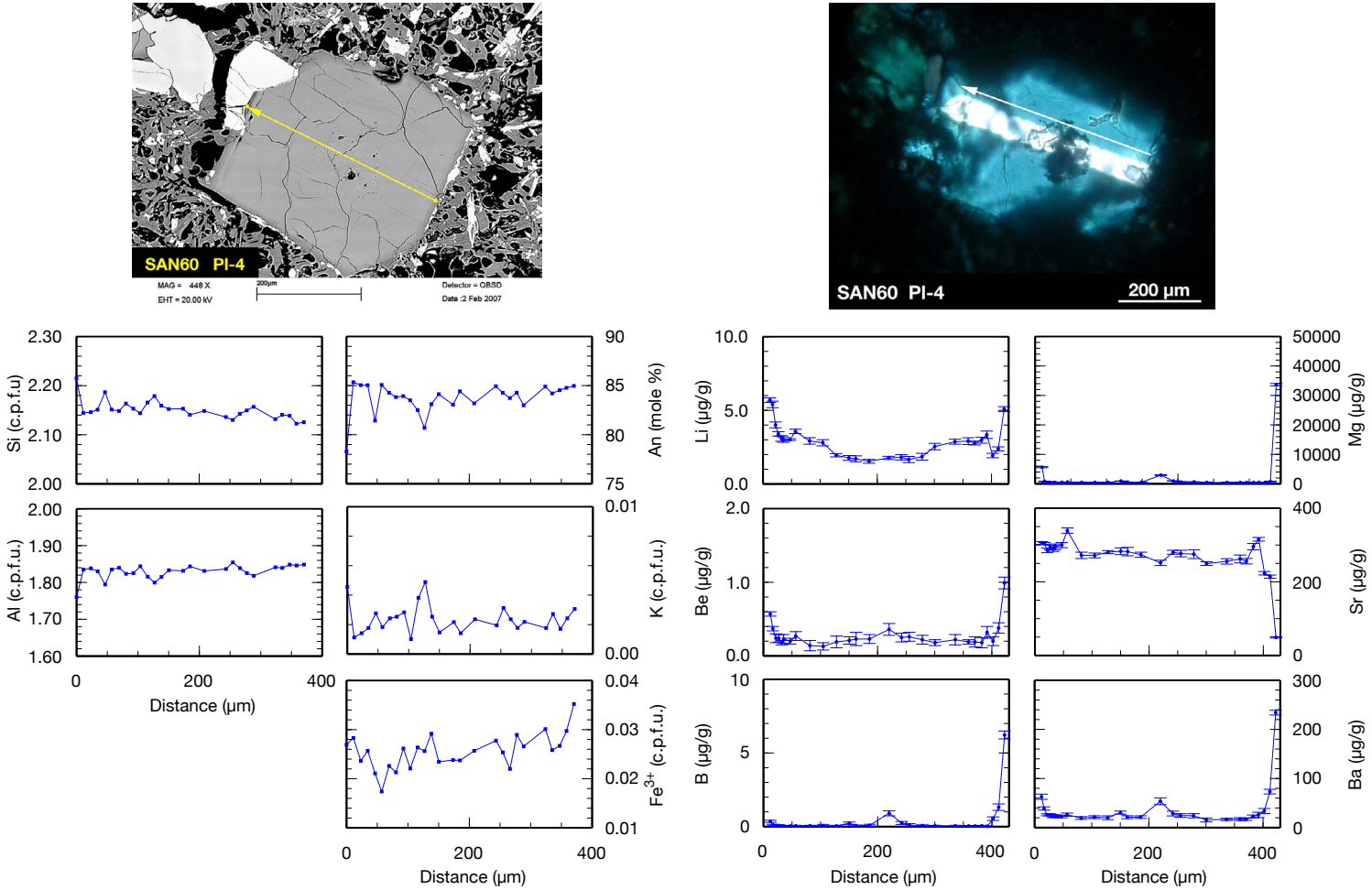


Fig. E.76. SAN60: Pl-4. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

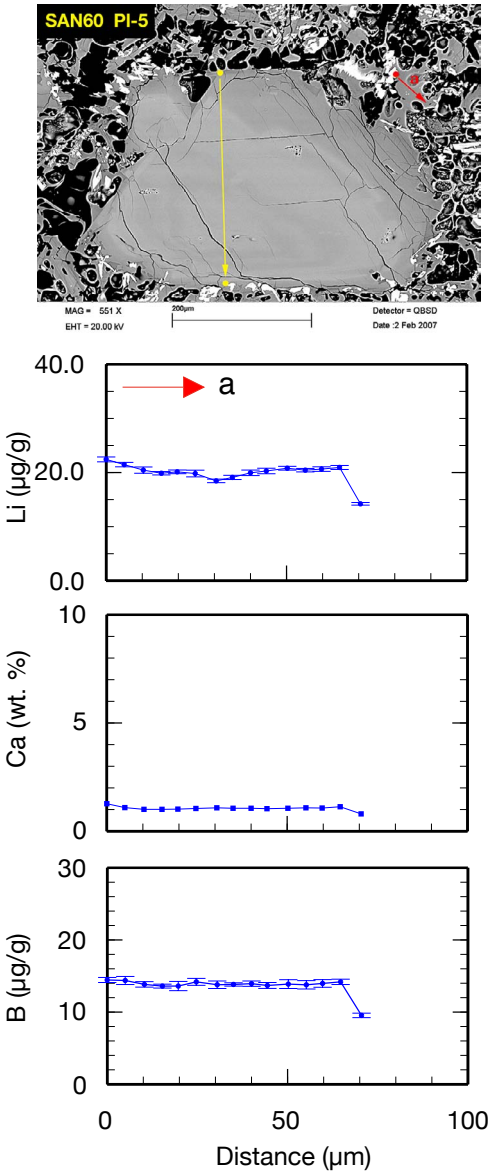


Fig. E.77. SAN60: Pl-5. A short SIMS profile was analyzed in matrix glass adjacent to plagioclase.

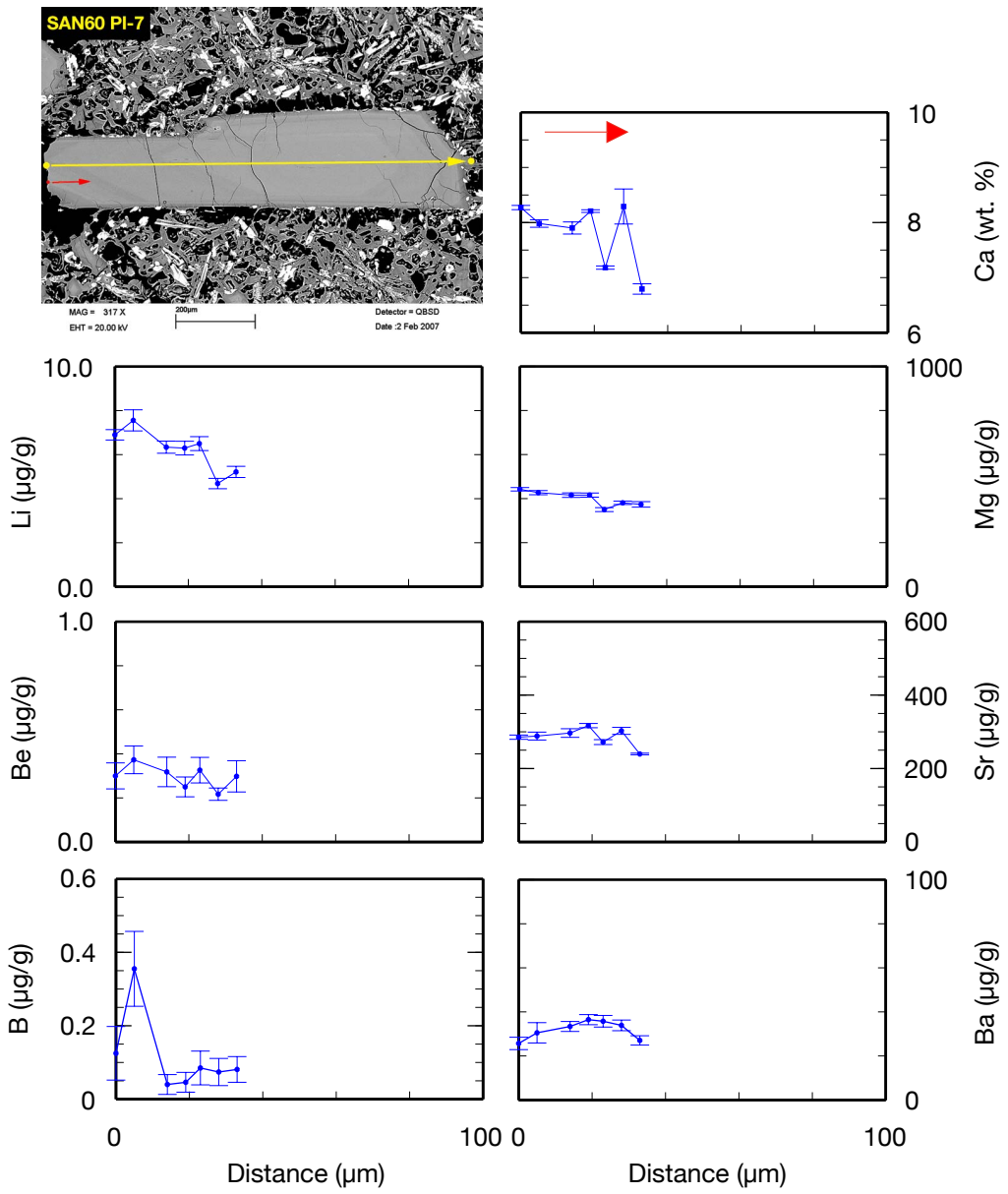


Fig. E.78. SAN60: Pl-7. A short SIMS profile was analyzed to detect or exclude Li diffusion from broken rims into plagioclase..

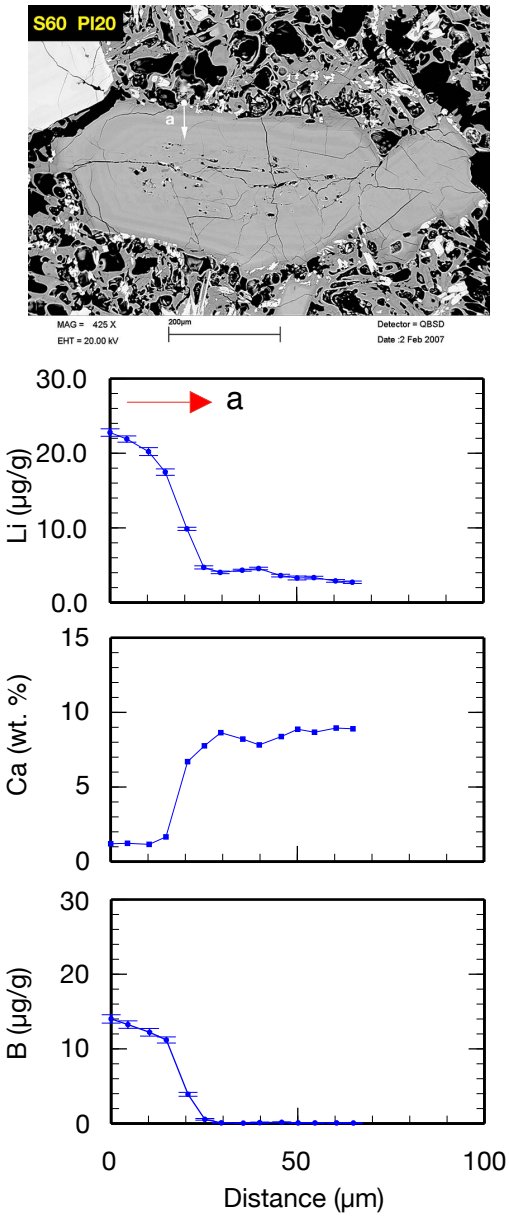


Fig. E.79. SAN60: Pl-20. A short SIMS profile was analyzed to detect or exclude diffusion of Li from glass selvages into plagioclase.

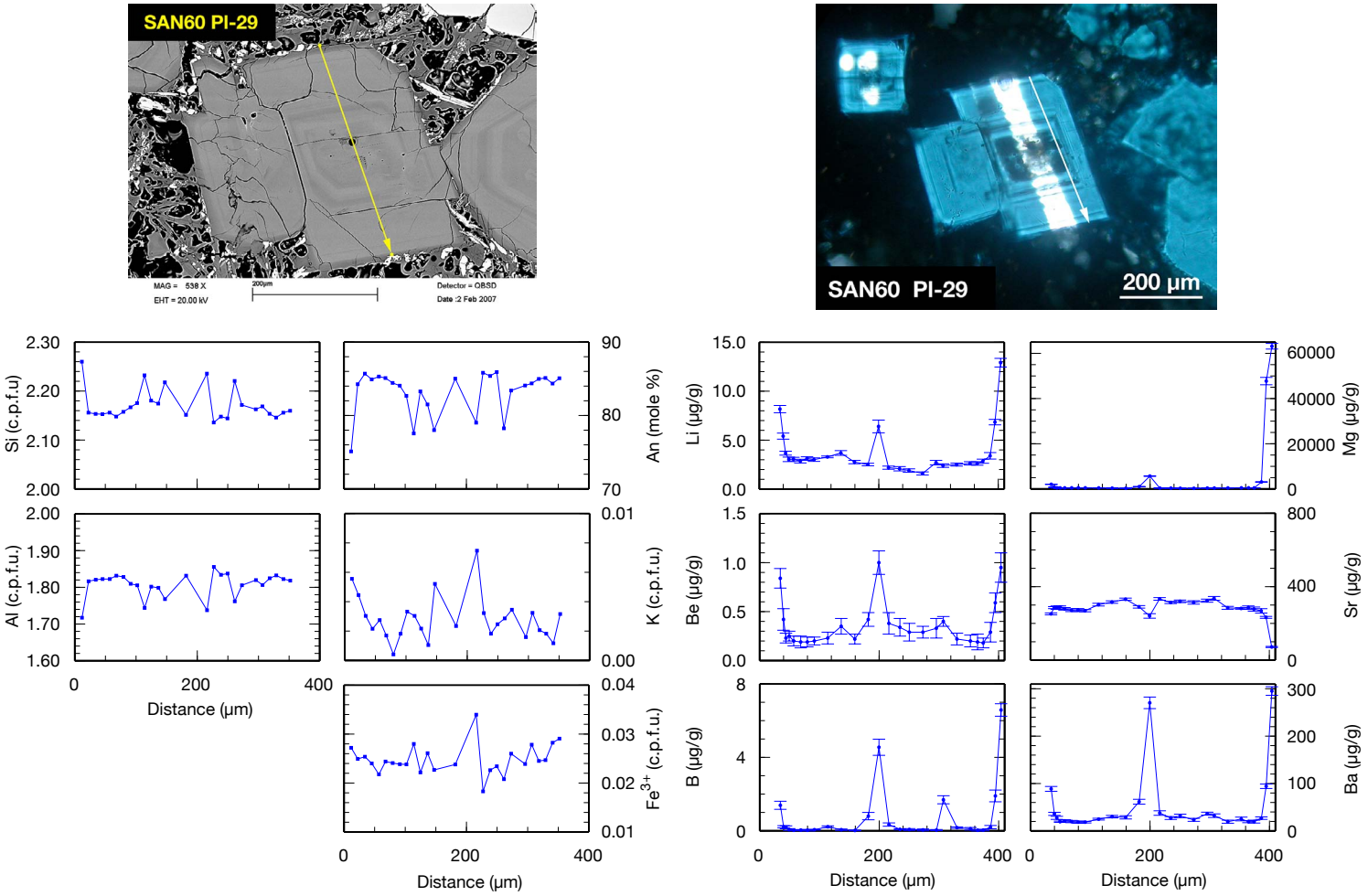


Fig. E.80. SAN60: Pl-29. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 8 oxygens.

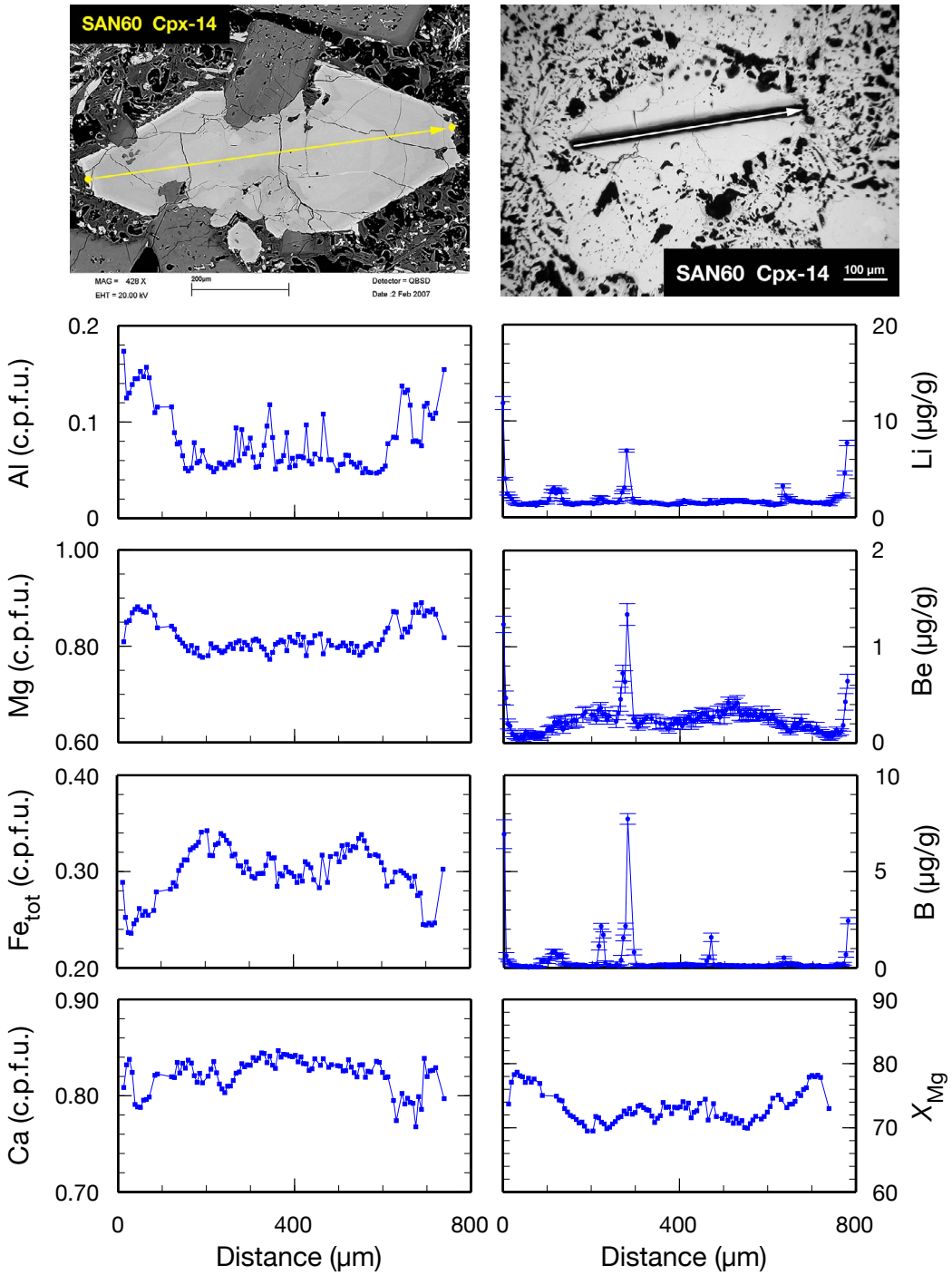
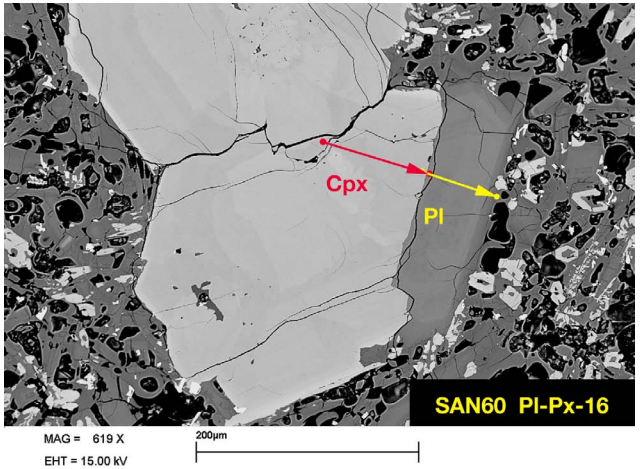
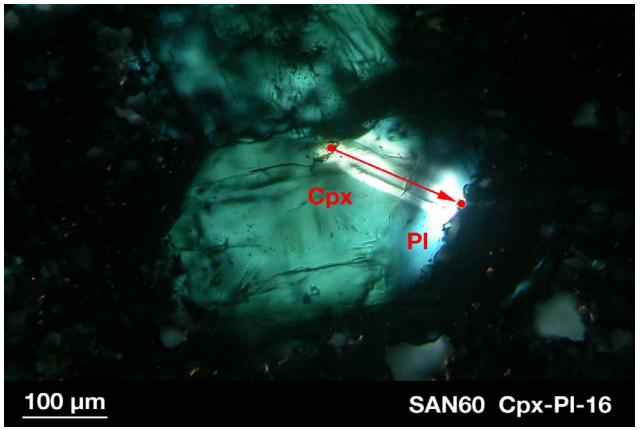


Fig. E.81. SAN60: Cpx-14. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 cations.





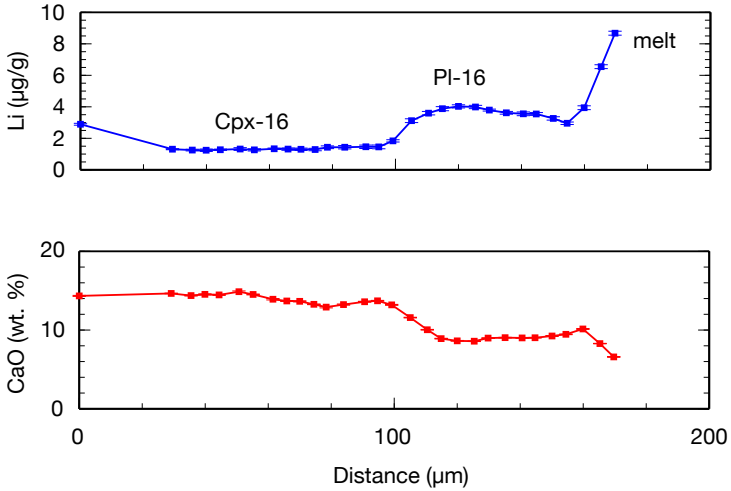


Fig. E.82. SAN60: Pl-Cpx-16. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.

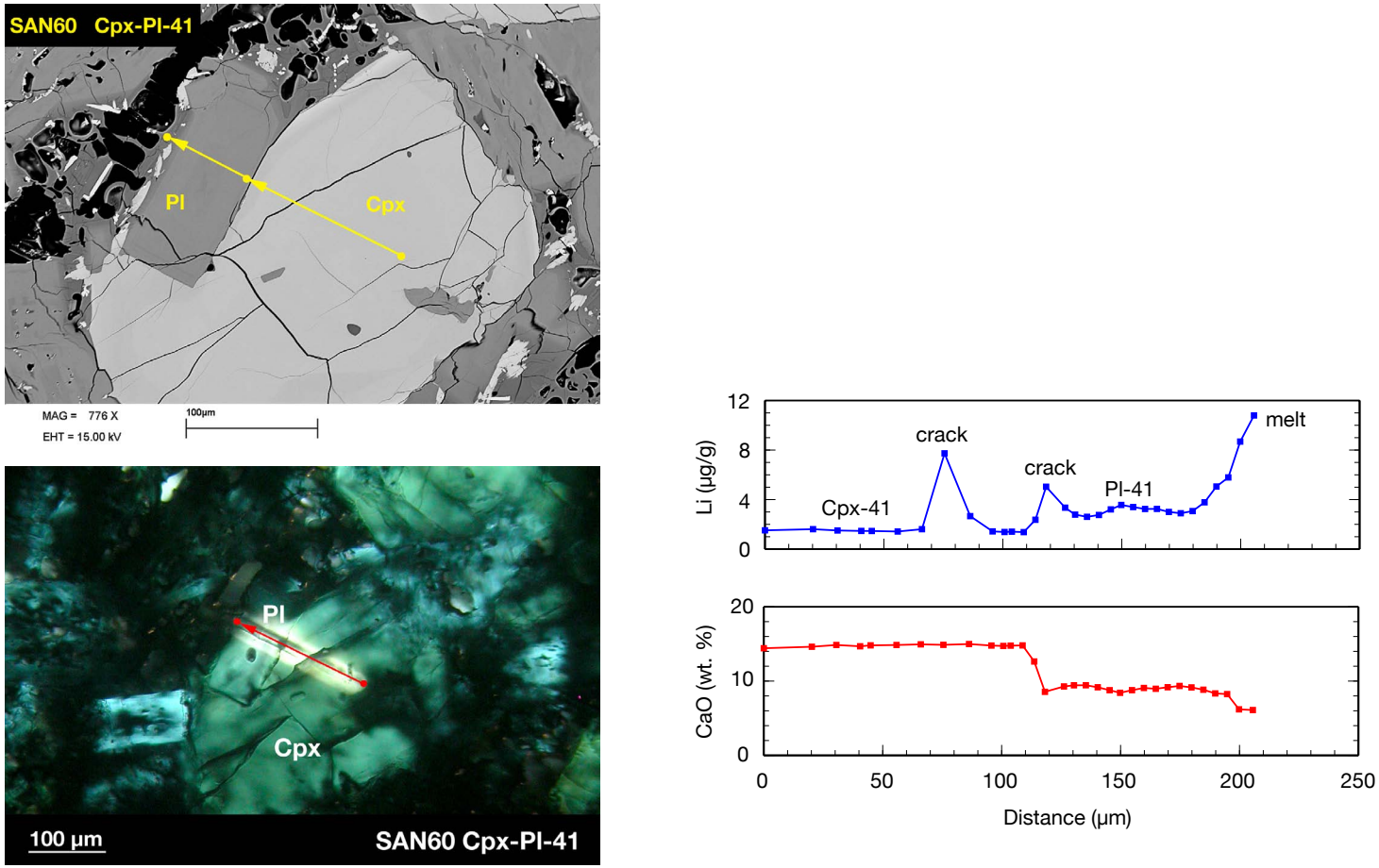


Fig. E.83. SAN60: Pl-Cpx-41. EPMA and SIMS profiles. Formulas of EPMA analyses for px are calculated to 4 cations; EPMA analyses for pl are calculated to 8 oxygens.

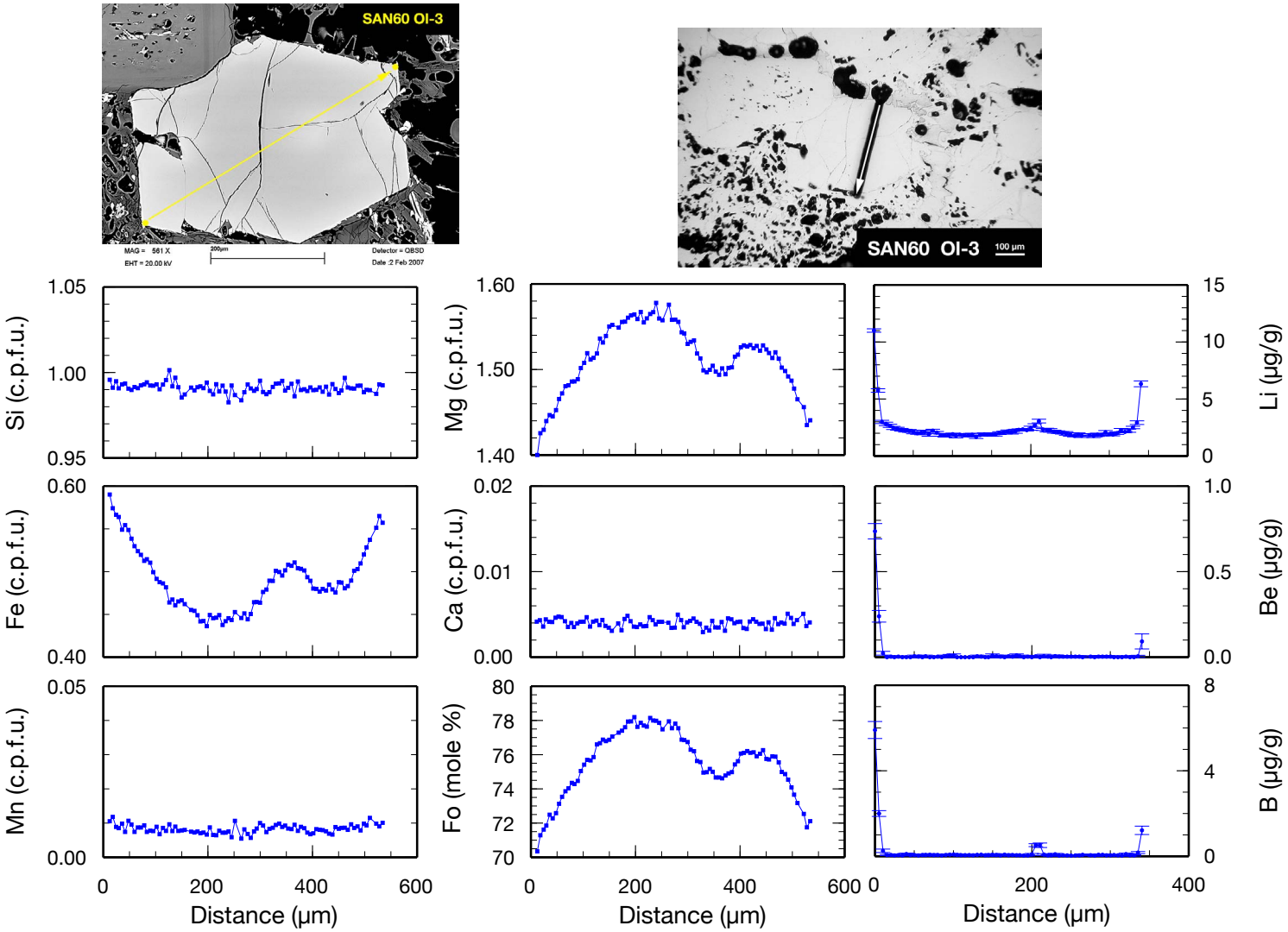


Fig. E.84. SAN60: Ol-3. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 oxygens.

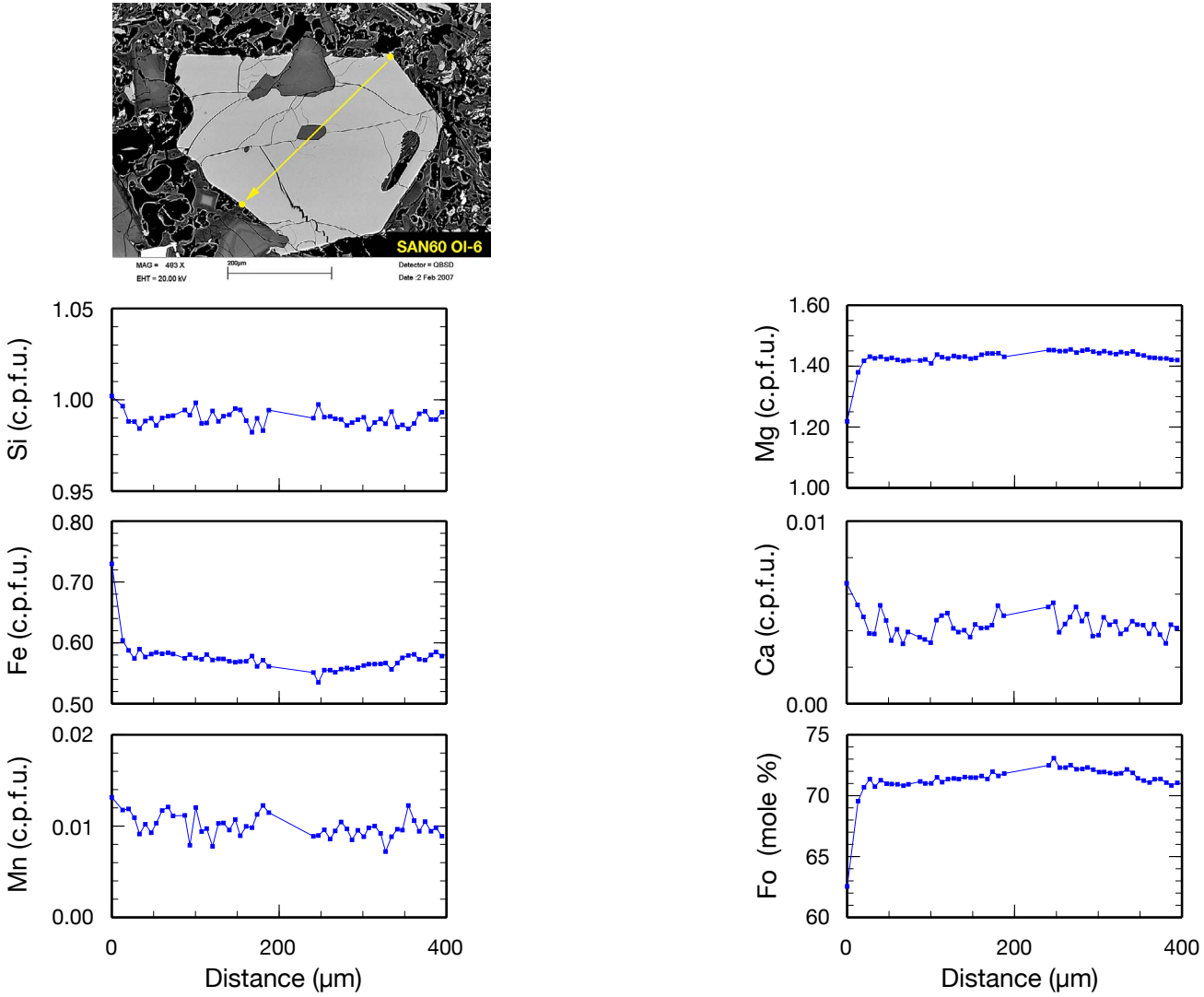


Fig. E.85. SAN60: Ol-6. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 oxygens.

E.0.35. Overview – SAN61-2

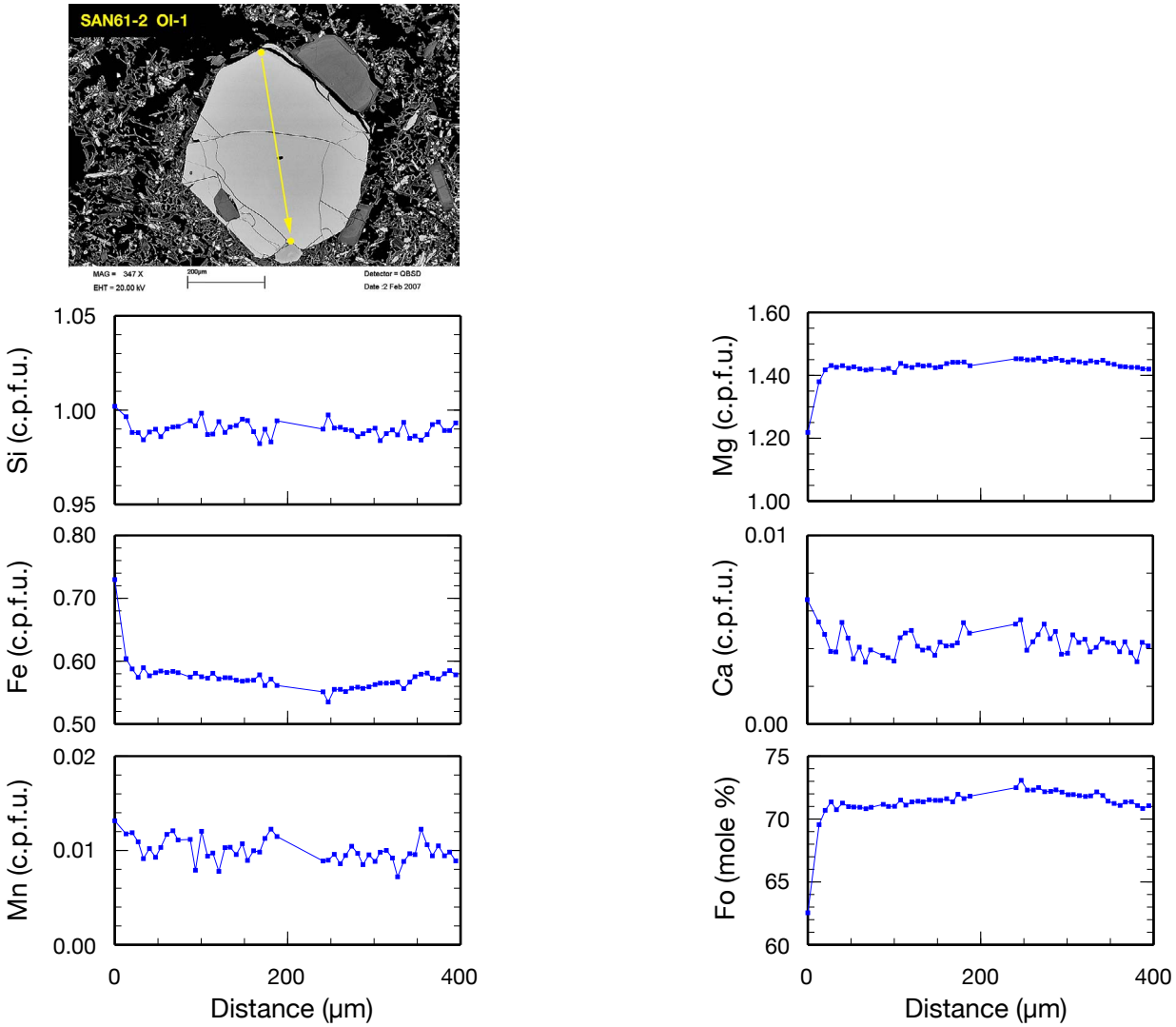


Fig. E.86. SAN61-2: Ol-1. EPMA and SIMS profiles. Formulas of EPMA analyses are calculated to 4 oxygens.

F. Appendix – Glass Analyses I – Minoan Pumice

F.1. Minoan A: SAN52-SAN57 Pl and Px

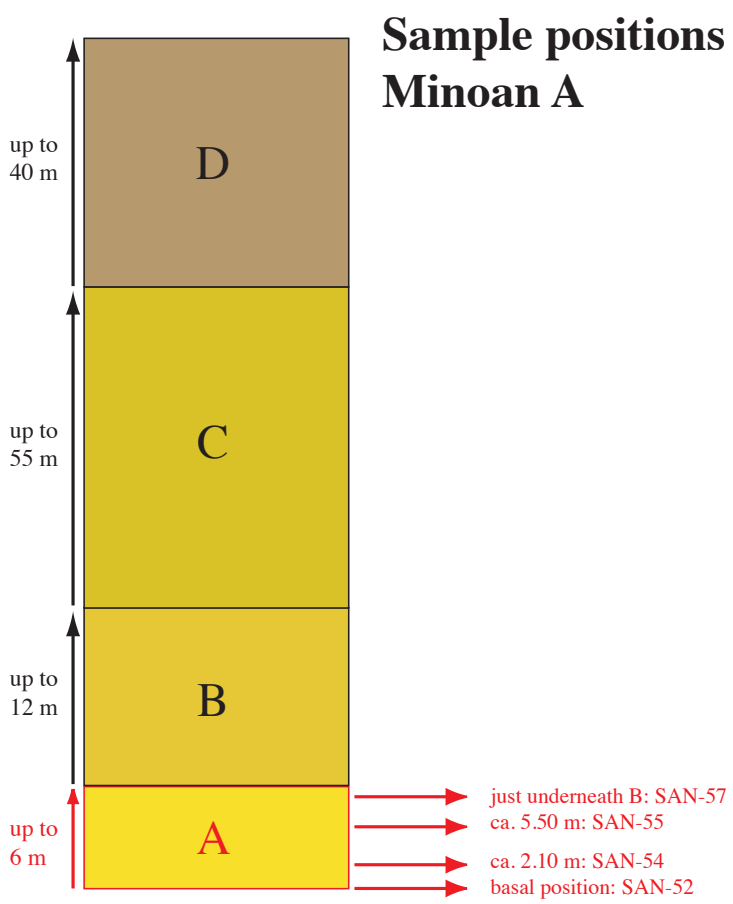


Fig. F.1. Positions of pumice samples taken from Minoan Unit A.

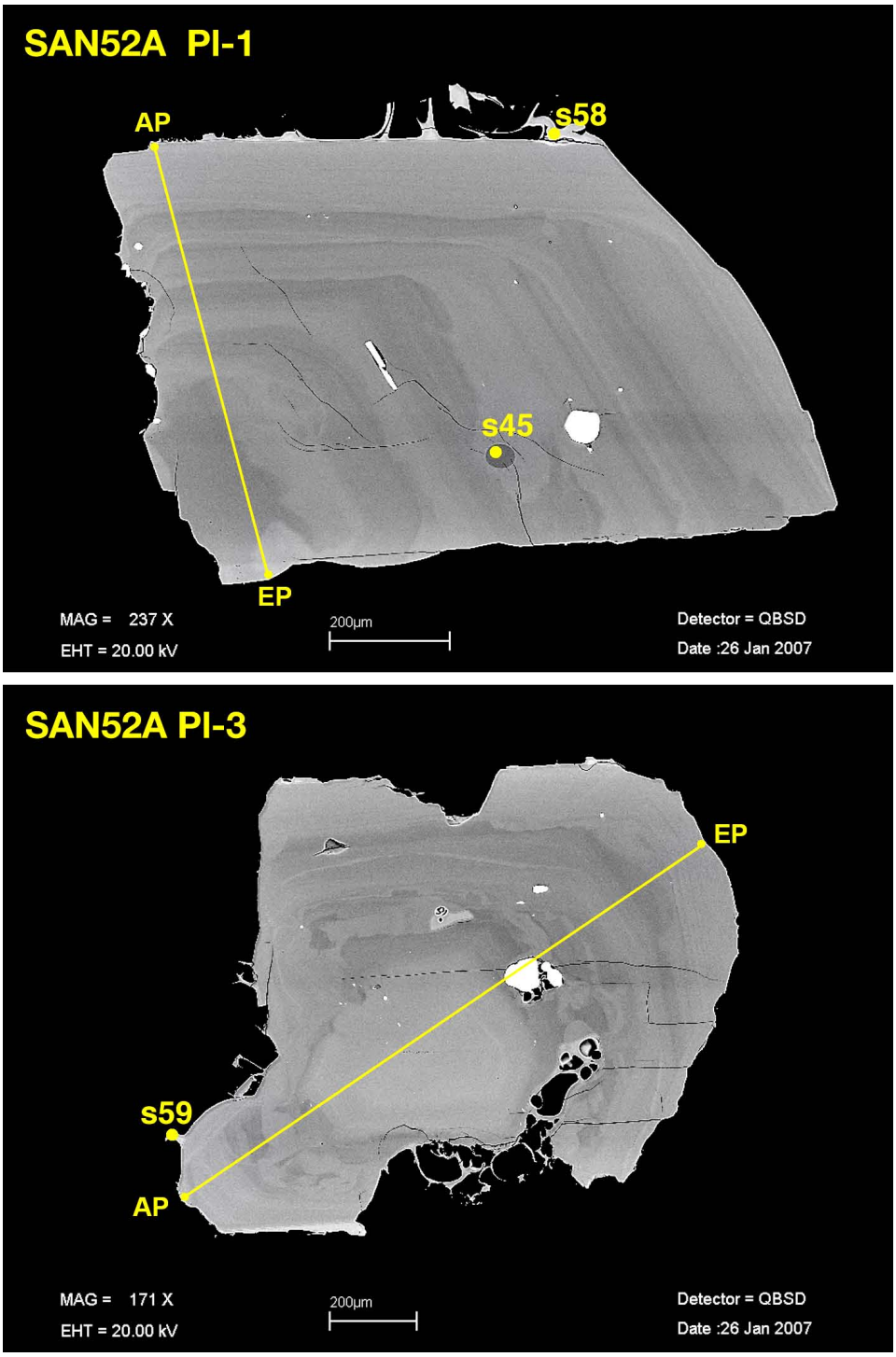


Fig. F.2. Minoan A – Pumice – SAN52A: Plagioclase crystals Pl-1 and Pl-3. Yellow points mark locations of EPMA analyses.

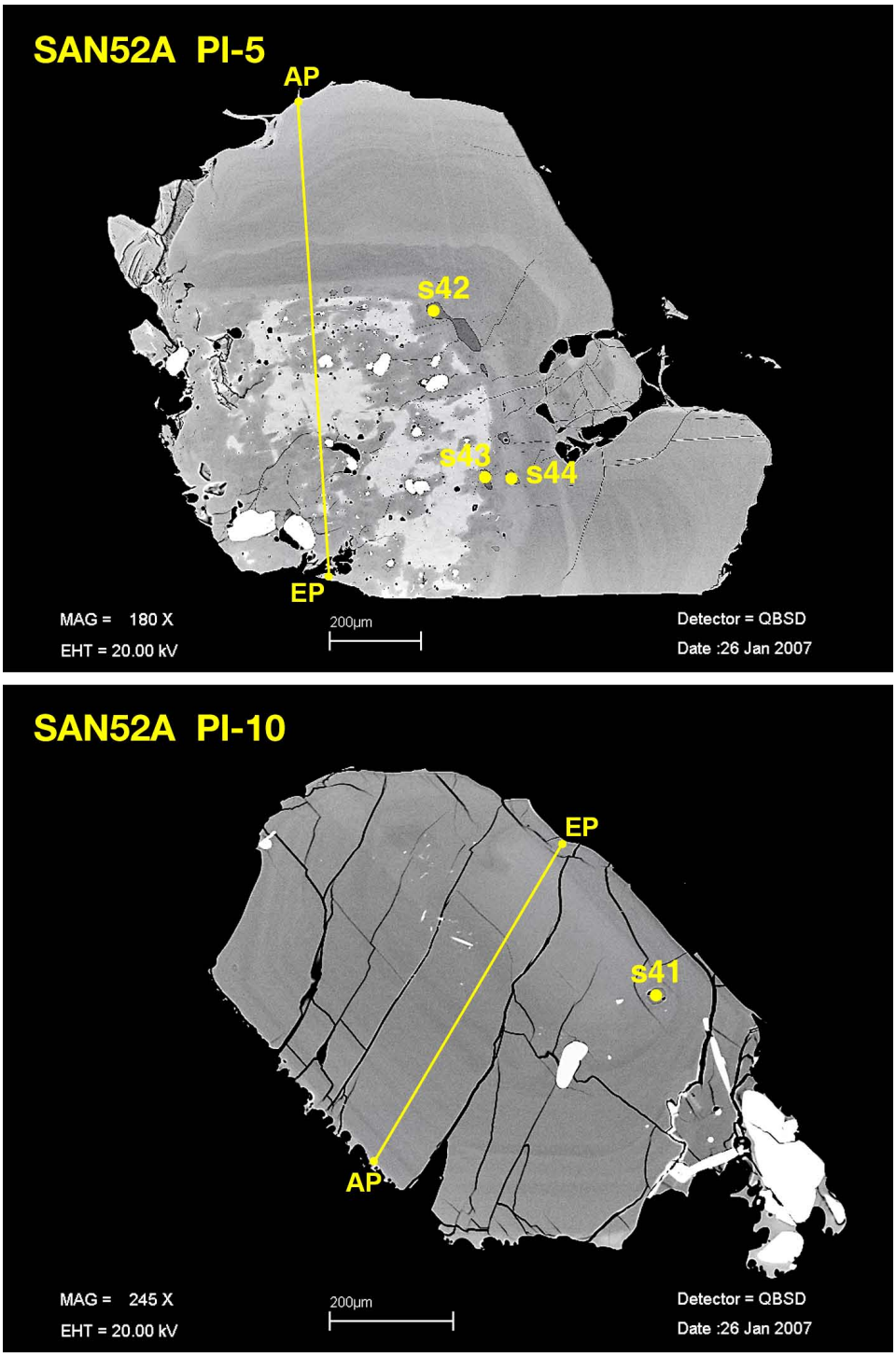


Fig. F.3. Minoan A – Pumice – SAN52A: Plagioclase crystals Pl-5 and Pl-10. Yellow points mark locations of EPMA analyses.

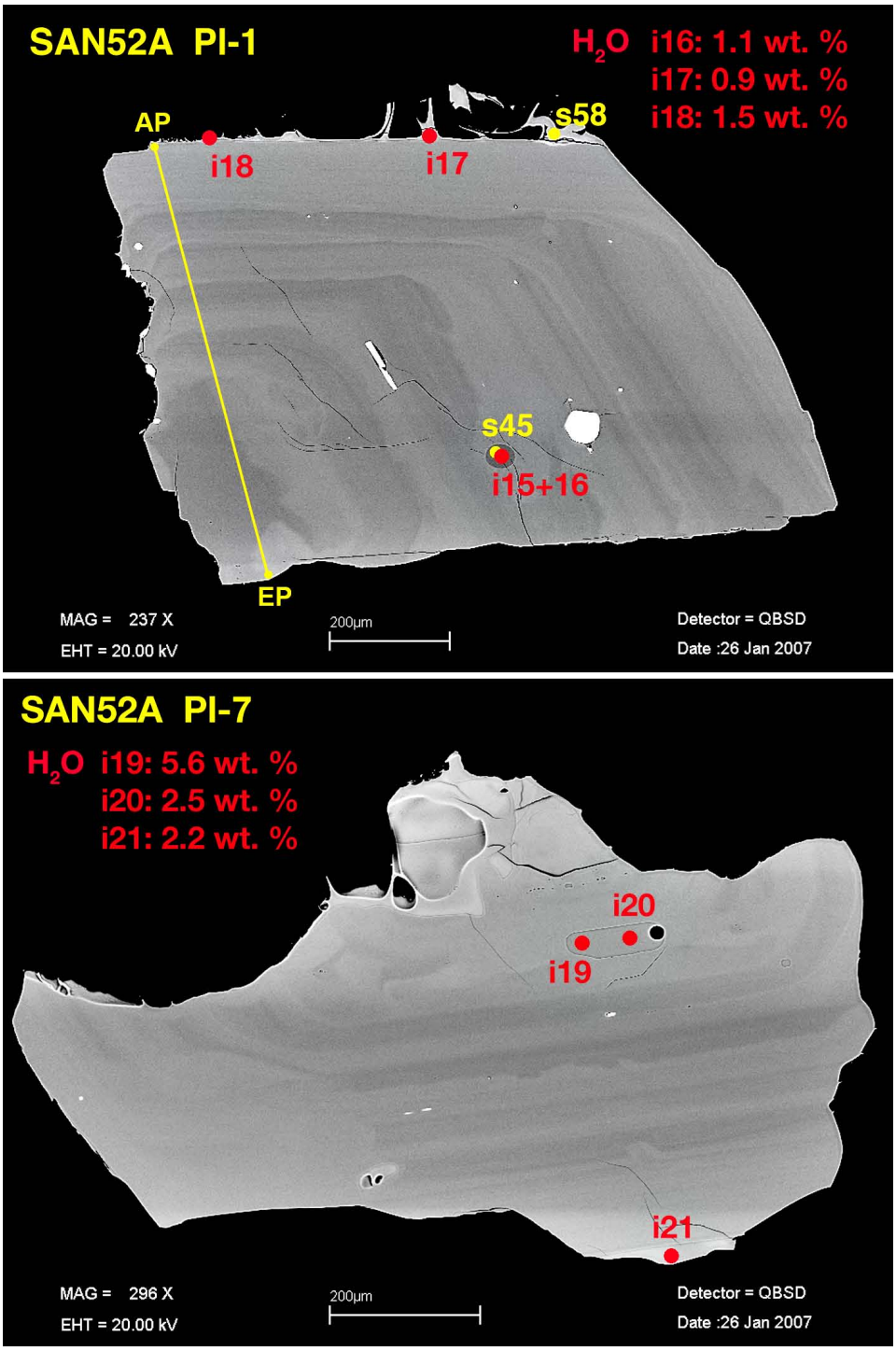


Fig. F.4. Minoan A – Pumice – SAN52A: Plagioclase crystals Pl-1 and Pl-7. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

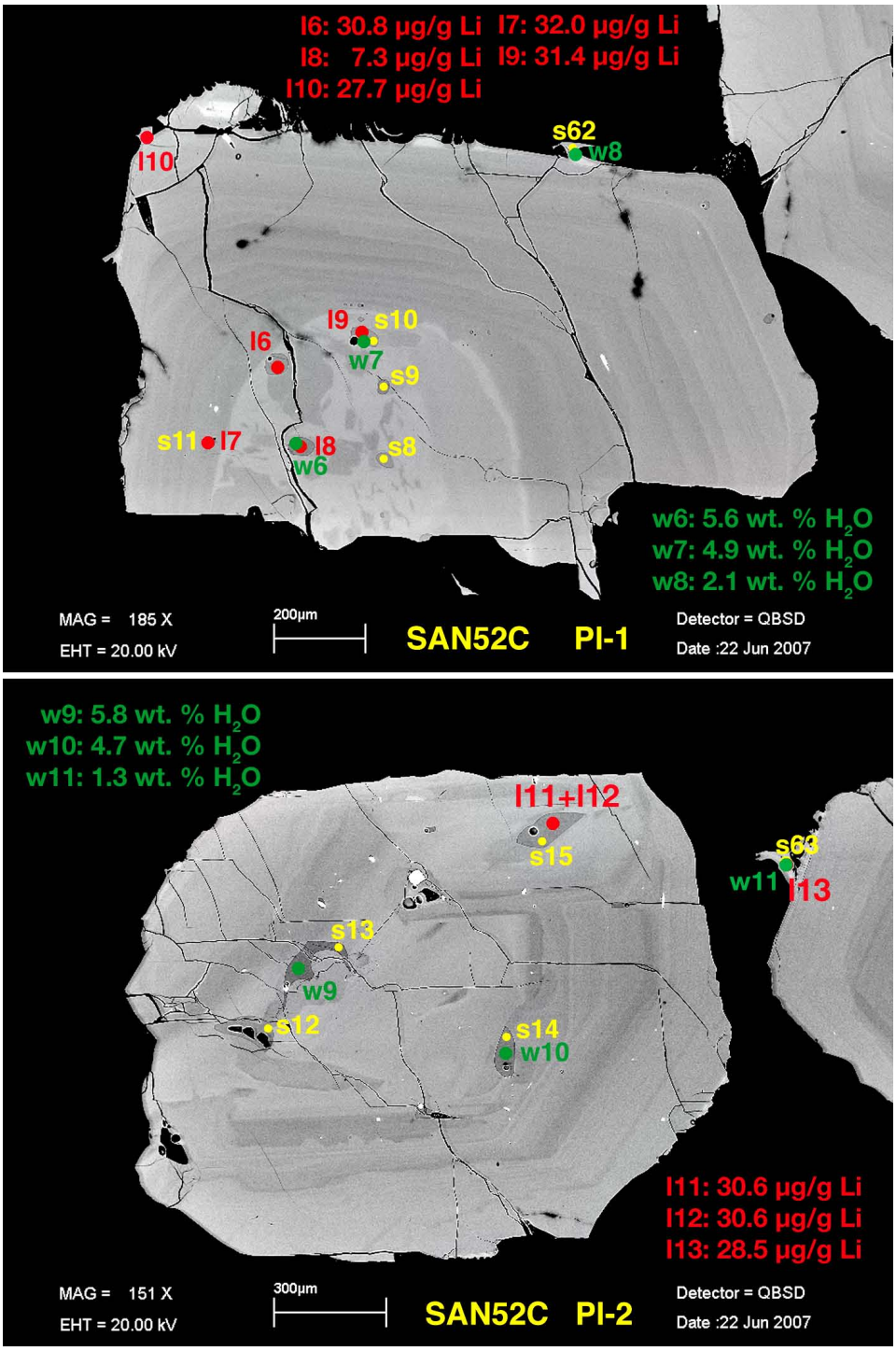


Fig. F.5. Minoan A – Pumice – SAN52C: Plagioclase crystals Pl-1 and Pl-2. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

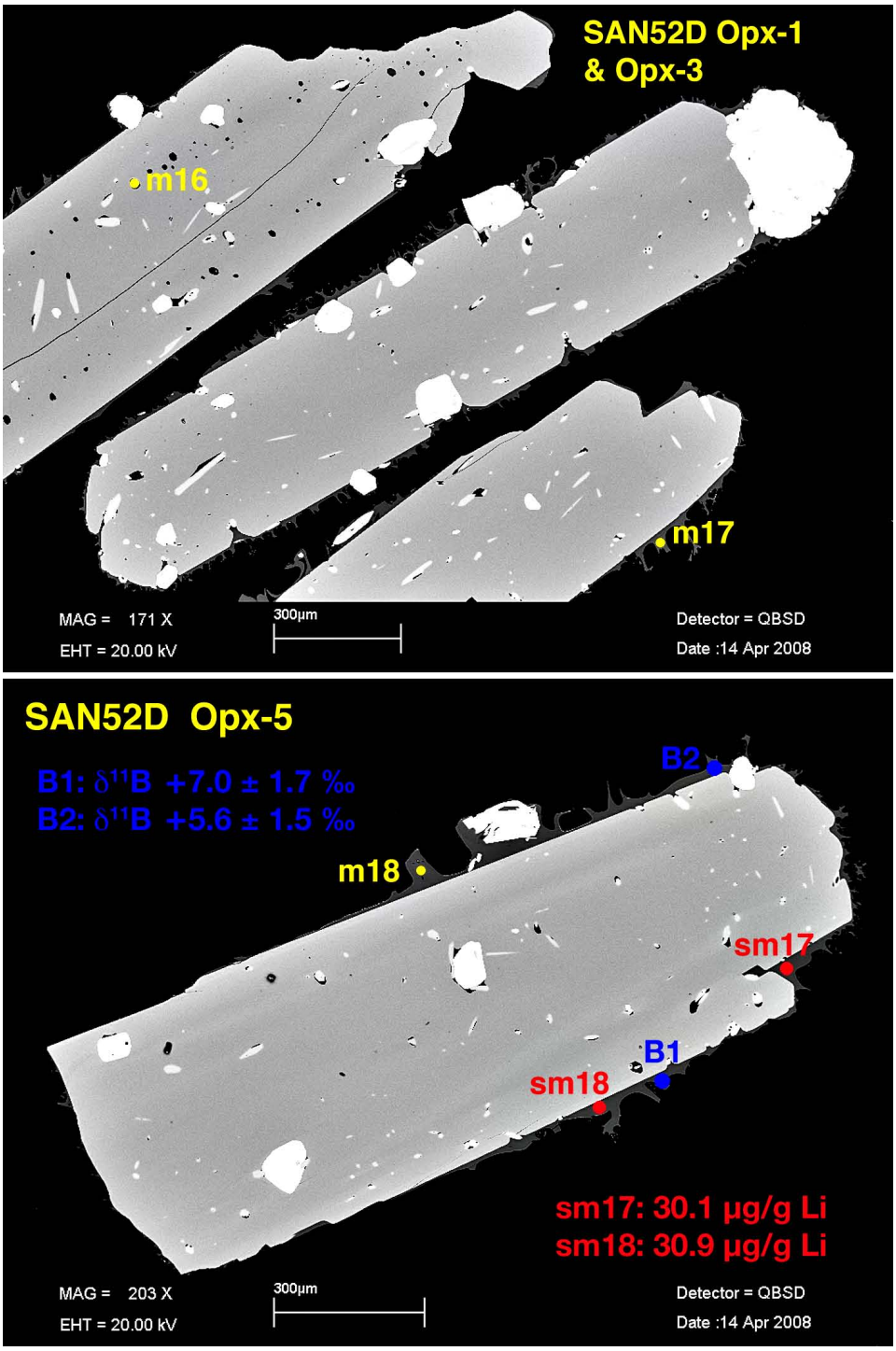


Fig. F.6. Minoan A – Pumice – SAN52D: Pyroxene crystals Opx-1, Opx-3 and Opx-5. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

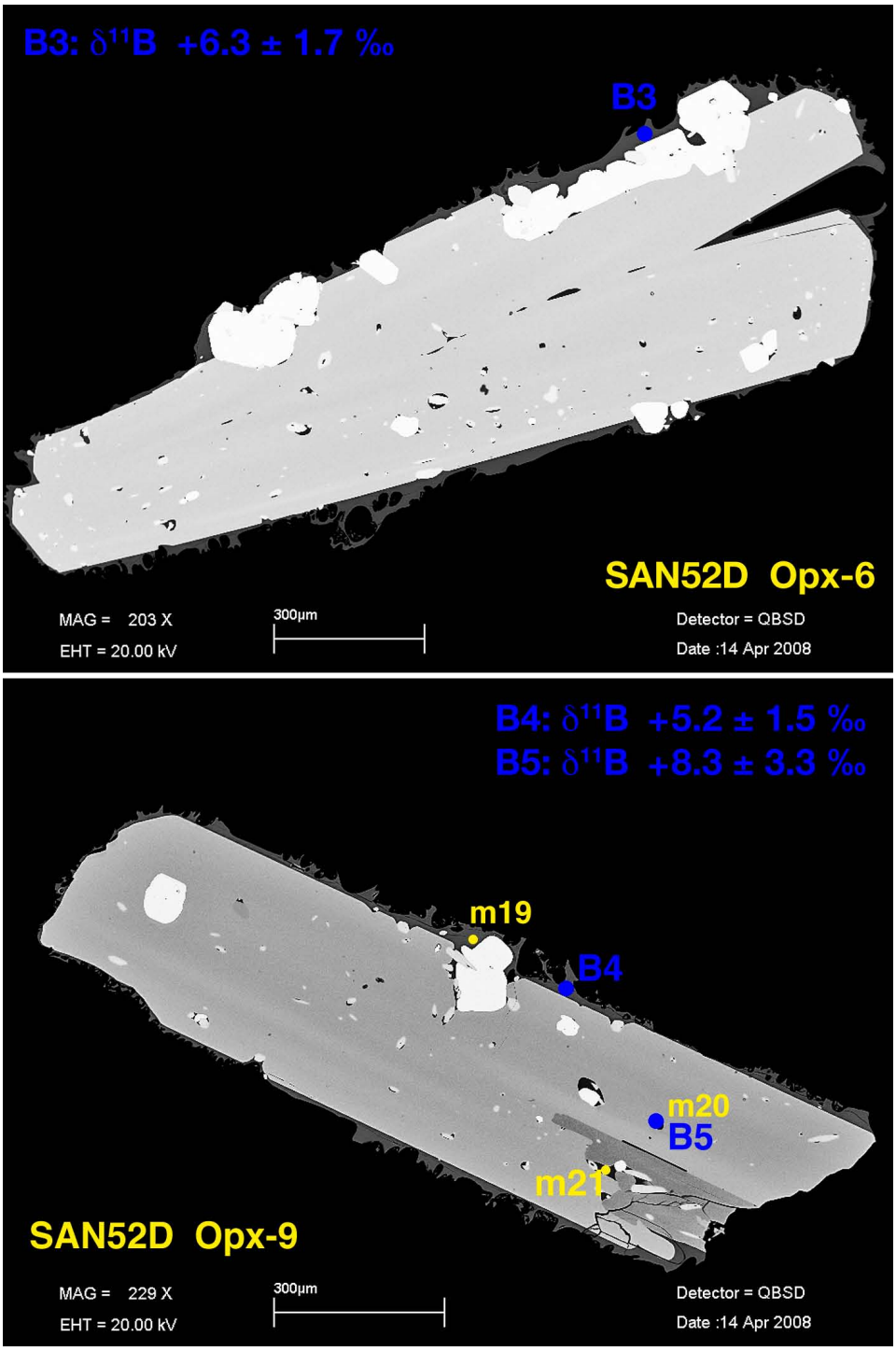


Fig. F.7. Minoan A – Pumice – SAN52D: Pyroxene crystals Opx-6 and Opx-9. Yellow points mark locations of EPMA analyses; blue points mark locations of SIMS analyses.

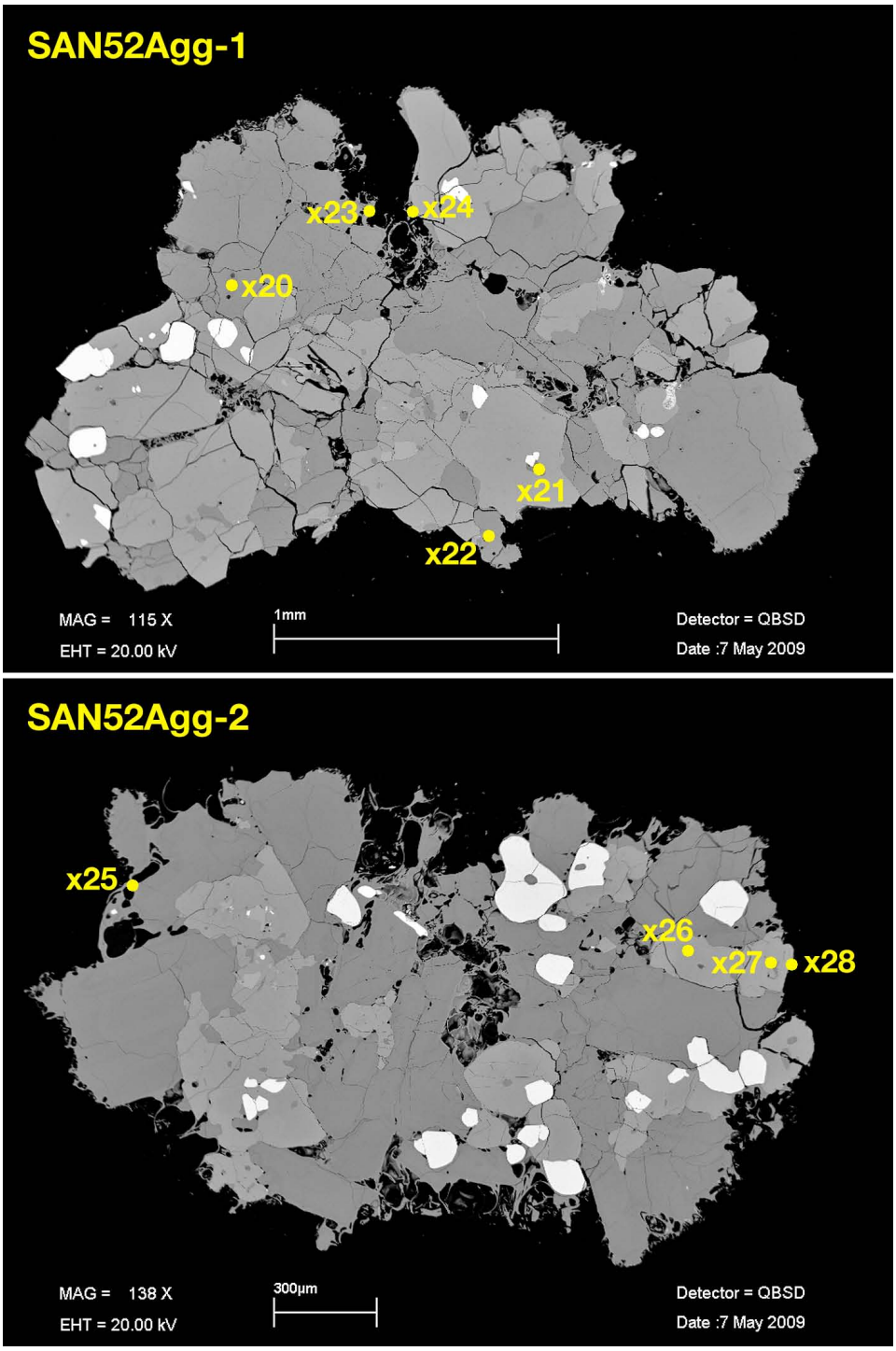


Fig. F.8. Minoan A – Pumice – SAN52Agg: Agg-1 and Agg-2 nodules within pumice. Yellow points mark locations of EPMA analyses.

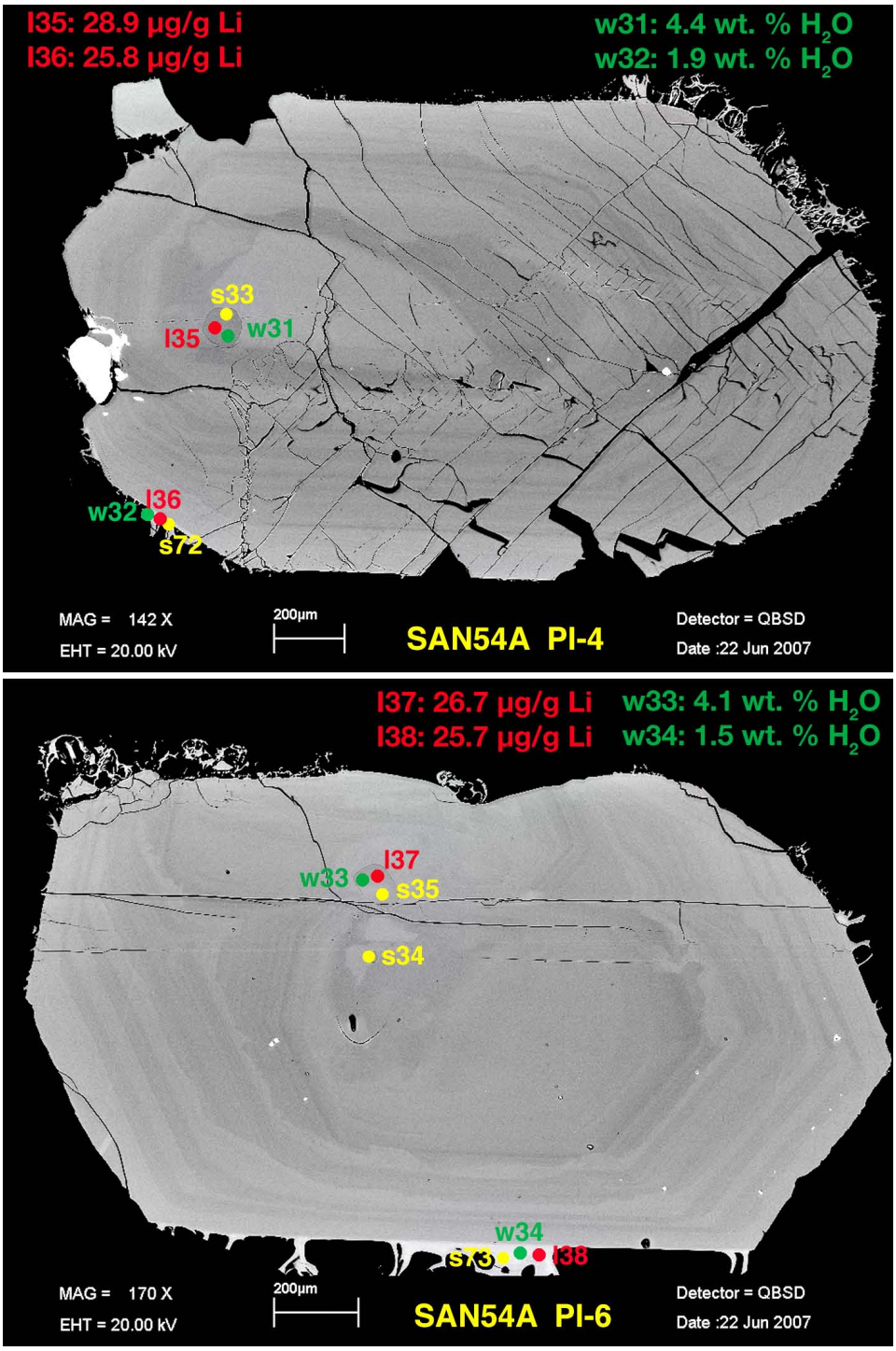


Fig. F.9. Minoan A – Pumice – SAN54A: Plagioclase crystals Pl-4 and Pl-6. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

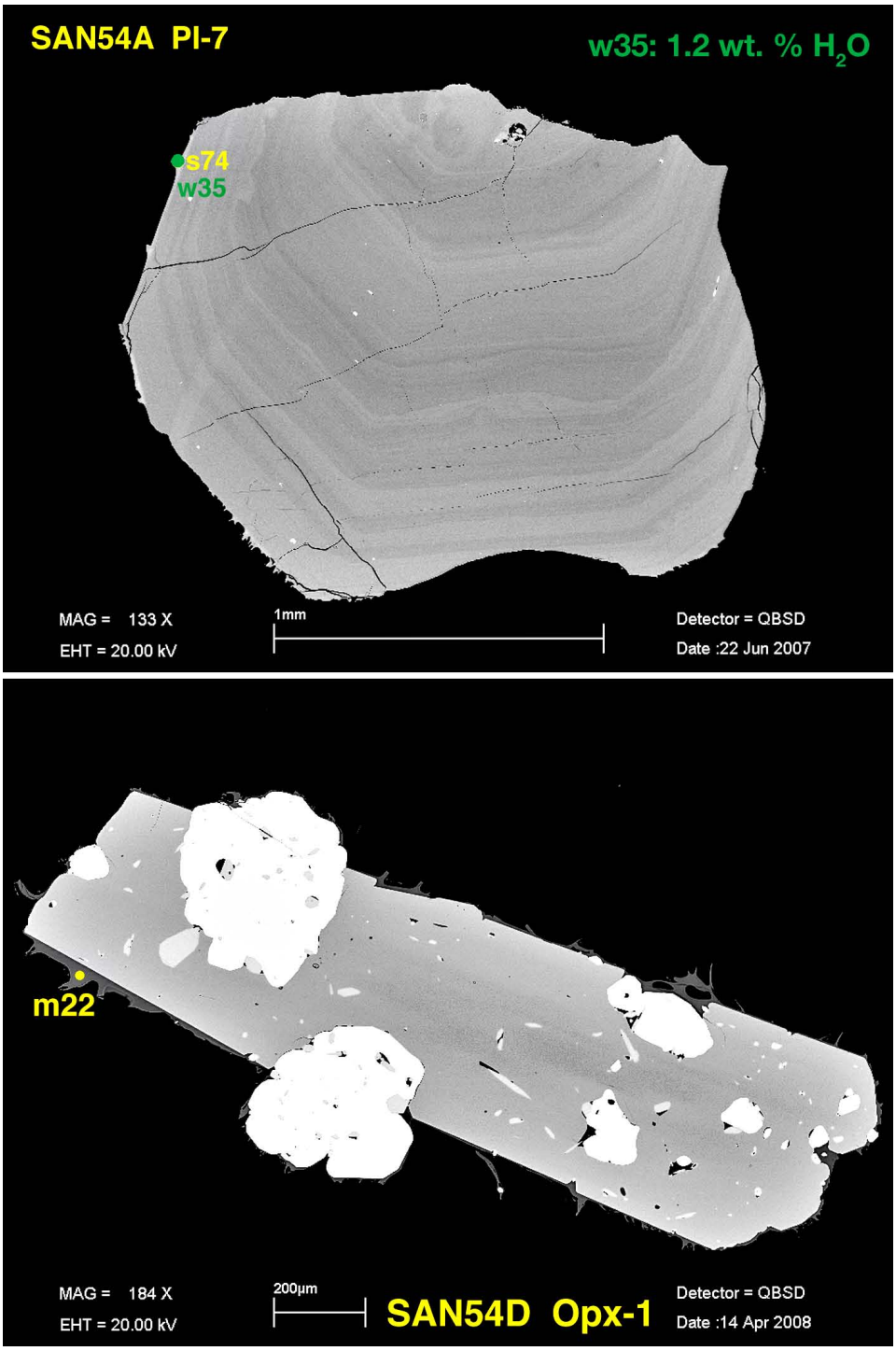


Fig. F.10. Minoan A – Pumice – SAN54A and SAN54D: Plagioclase + Pyroxene crystals Pl-7 and Opx-1. Yellow points mark locations of EPMA analyses; green points mark locations of SIMS analyses.

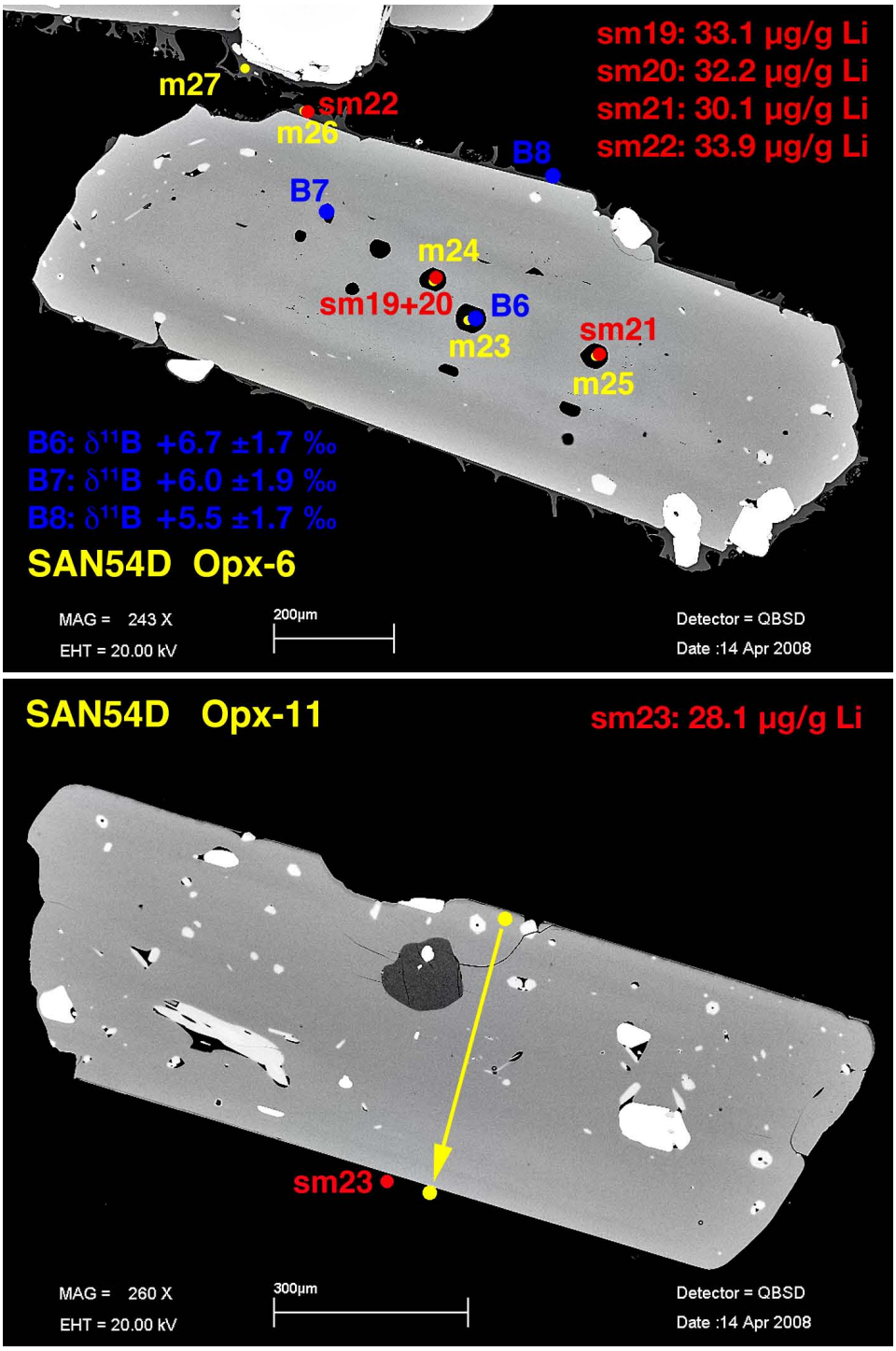


Fig. F.11. Minoan A – Pumice – SAN54A and SAN54D: Pyroxene crystals Opx-6 and Opx-11. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

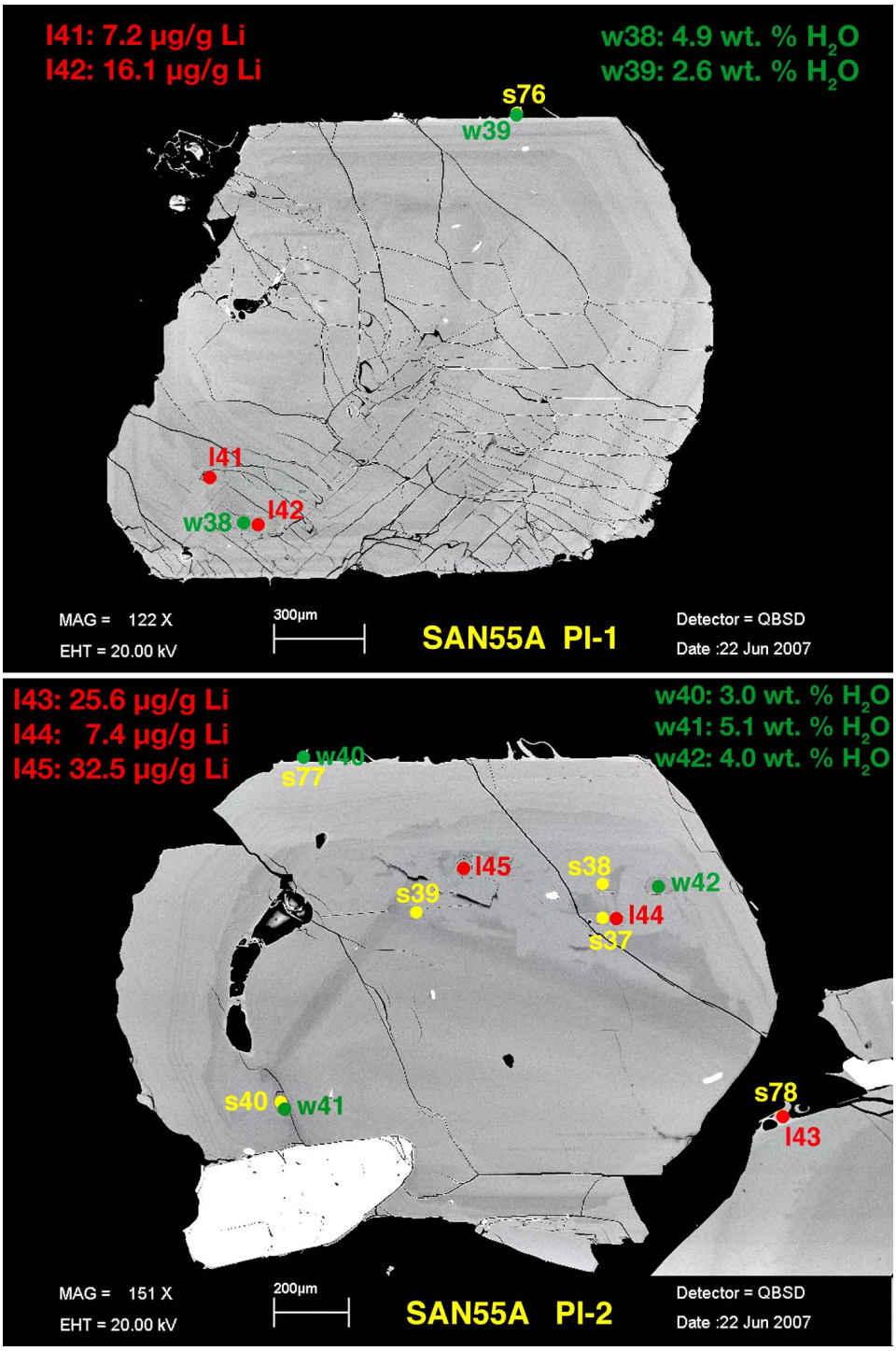


Fig. F.12. Minoan A – Pumice – SAN55A: Plagioclase crystals Pl-1 and Pl-2. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

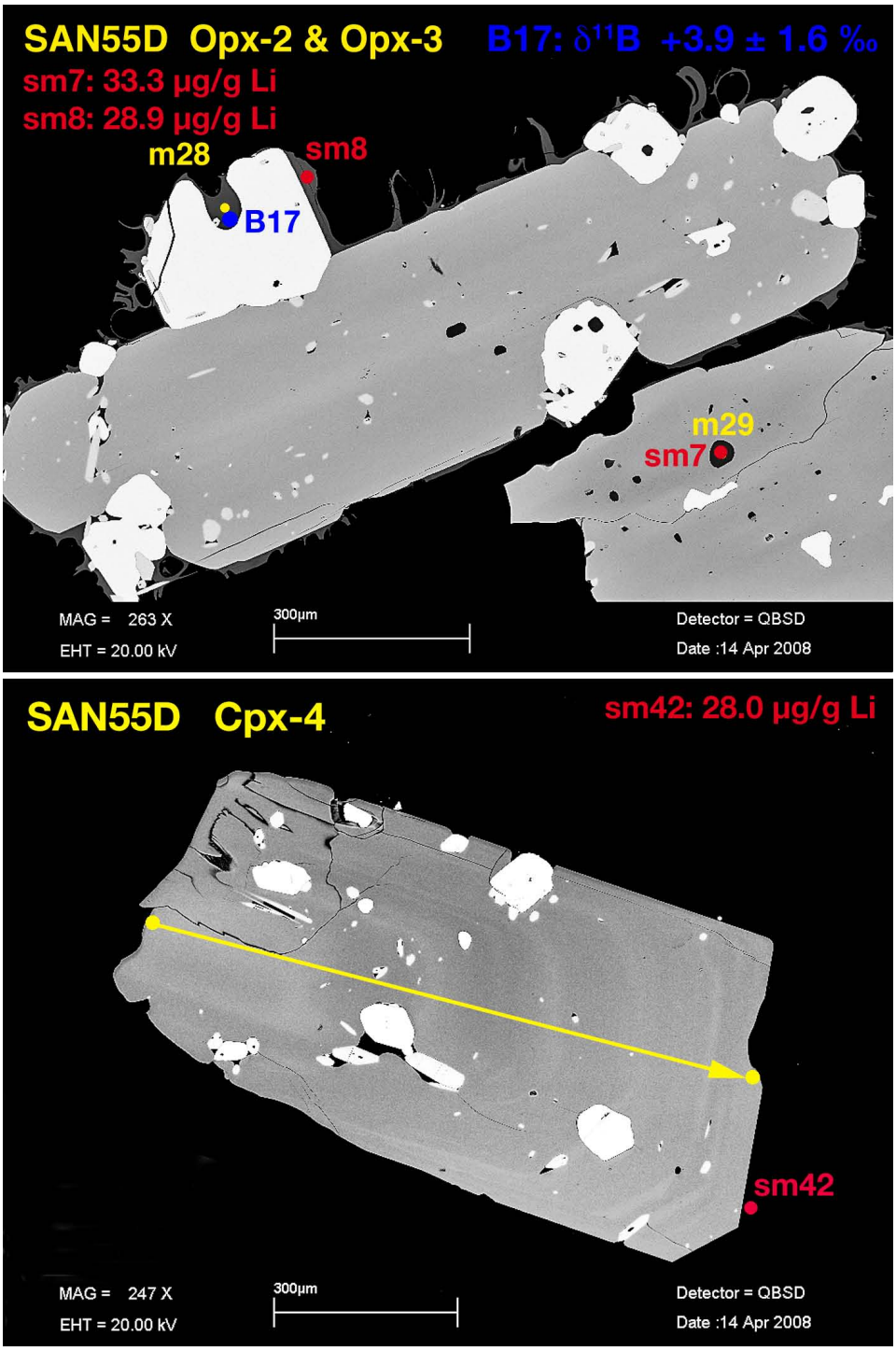


Fig. F.13. Minoan A – Pumice – SAN55D: Pyroxene crystals Opx-2 + Opx-3 and Cpx-4. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

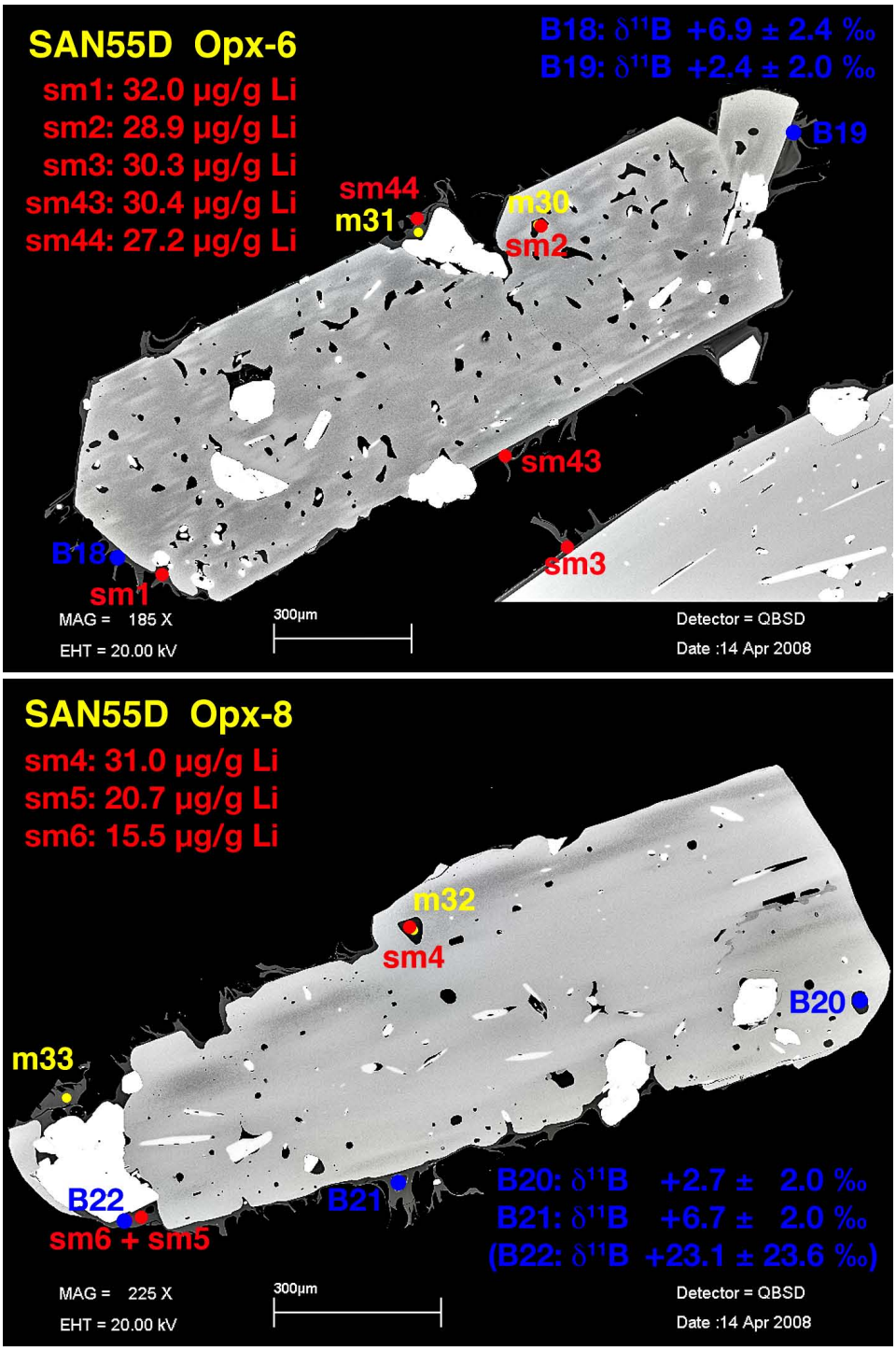


Fig. F.14. Minoan A – Pumice – SAN55D: Pyroxene crystals Opx-6 and Opx-8. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

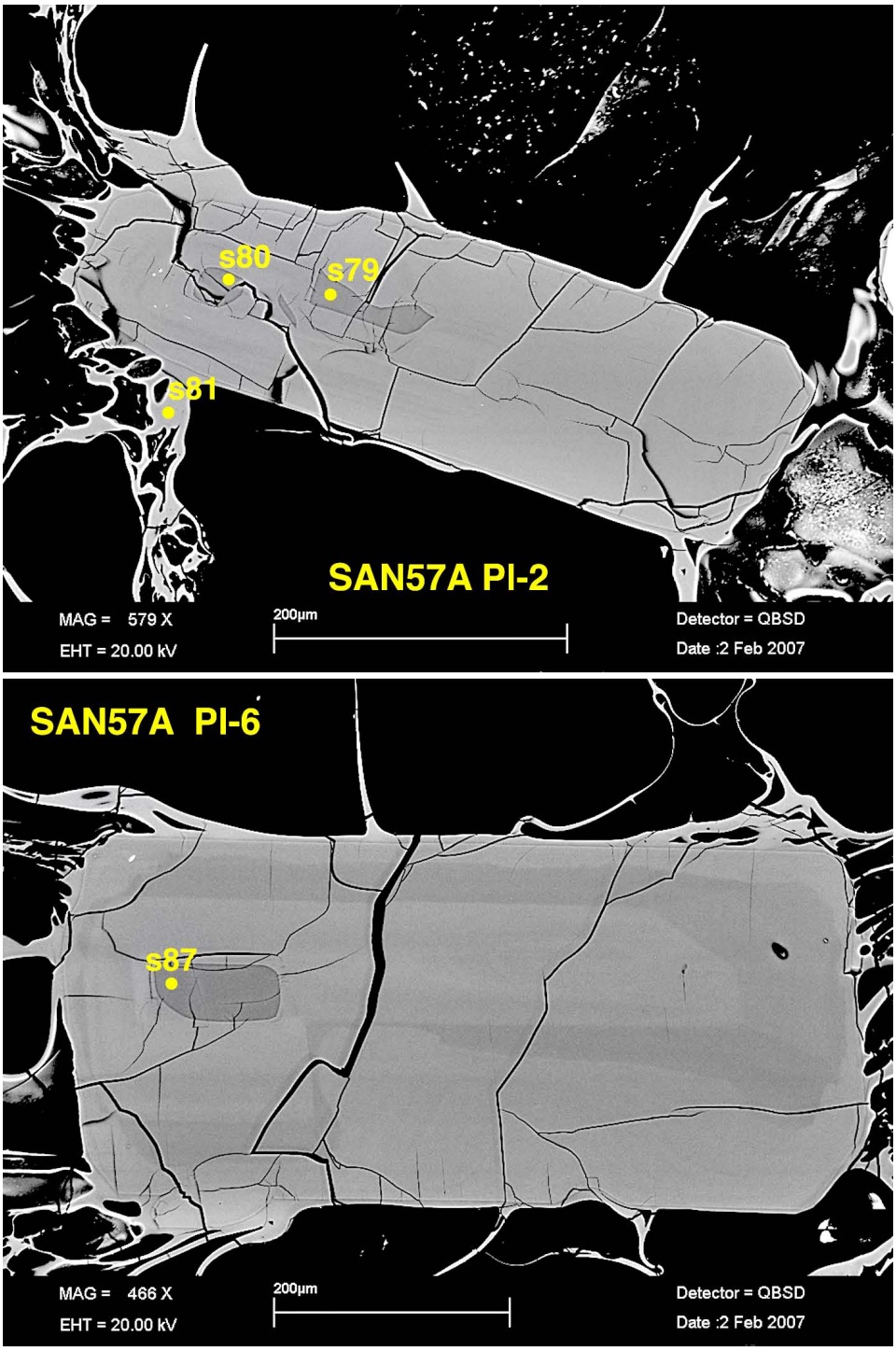


Fig. F.15. Minoan A – Pumice – SAN57A: Plagioclase crystals Pl-2 and Pl-6. Yellow points mark locations of EPMA analyses.

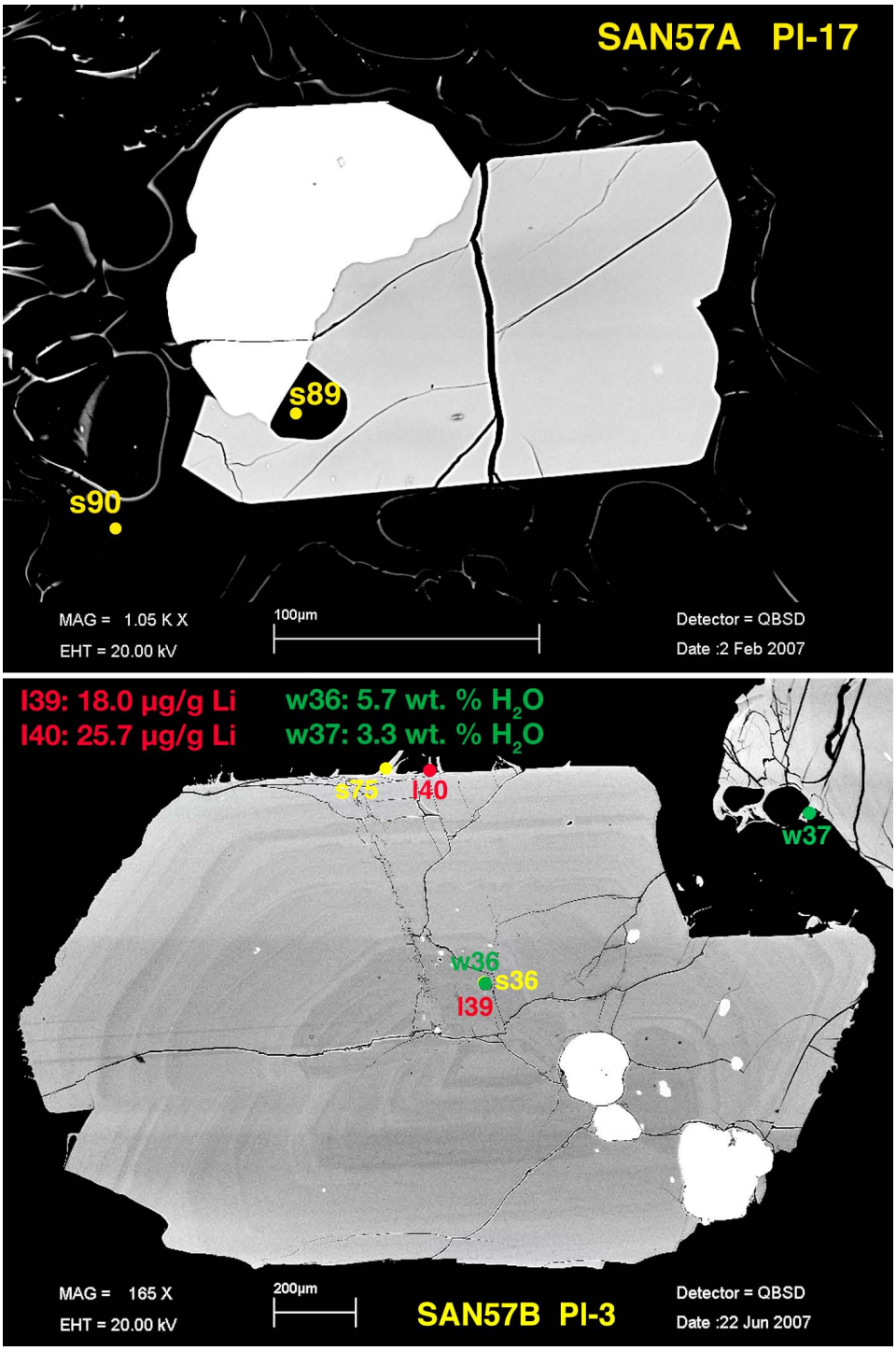


Fig. F.16. Minoan A – Pumice – SAN57A and SAN57B: Plagioclase crystals Pl-17 and Pl-3. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

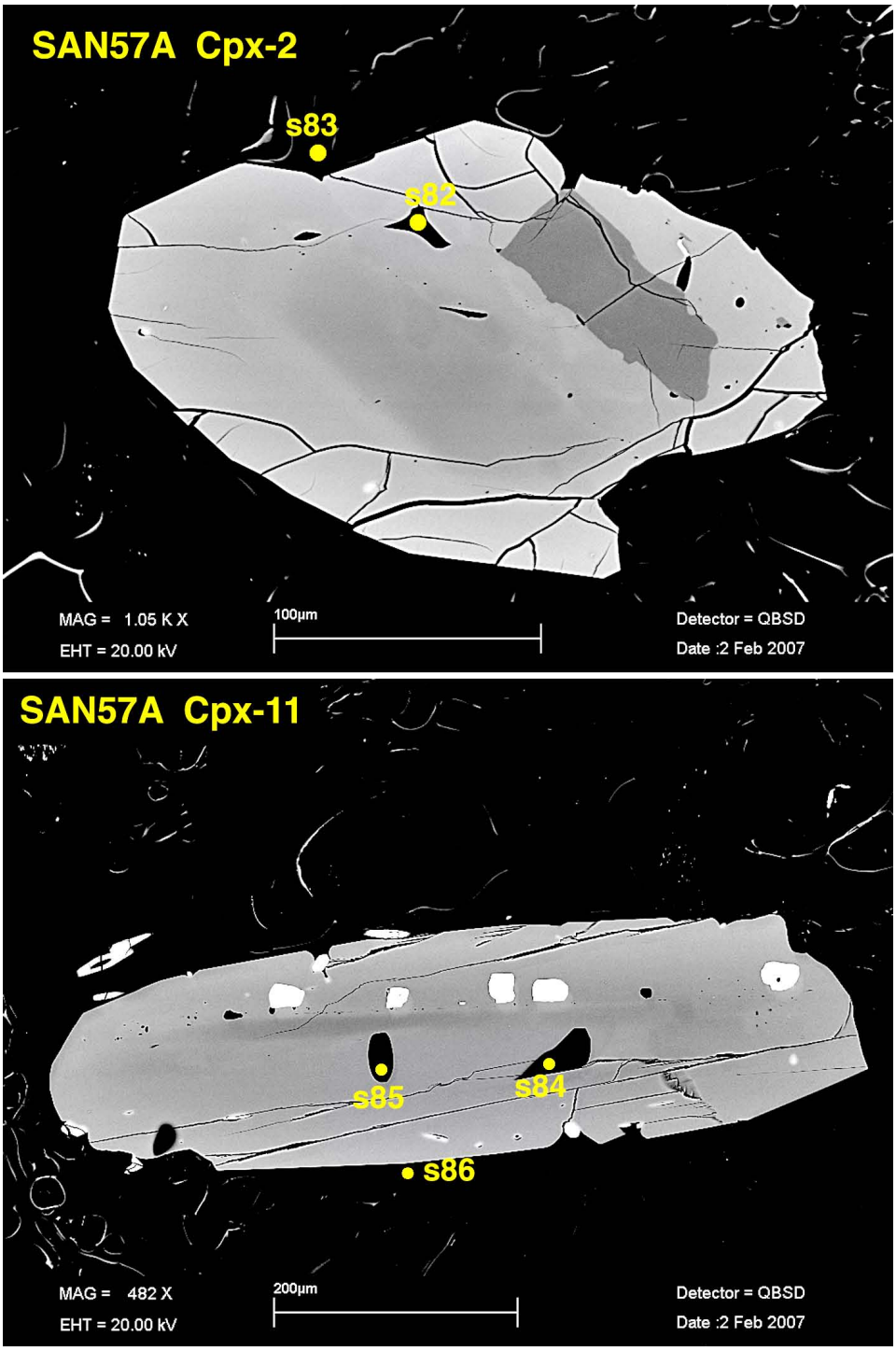


Fig. F.17. Minoan A – Pumice – SAN57A: Pyroxene crystals Cpx-2 and Cpx-11. Yellow points mark locations of EPMA analyses.

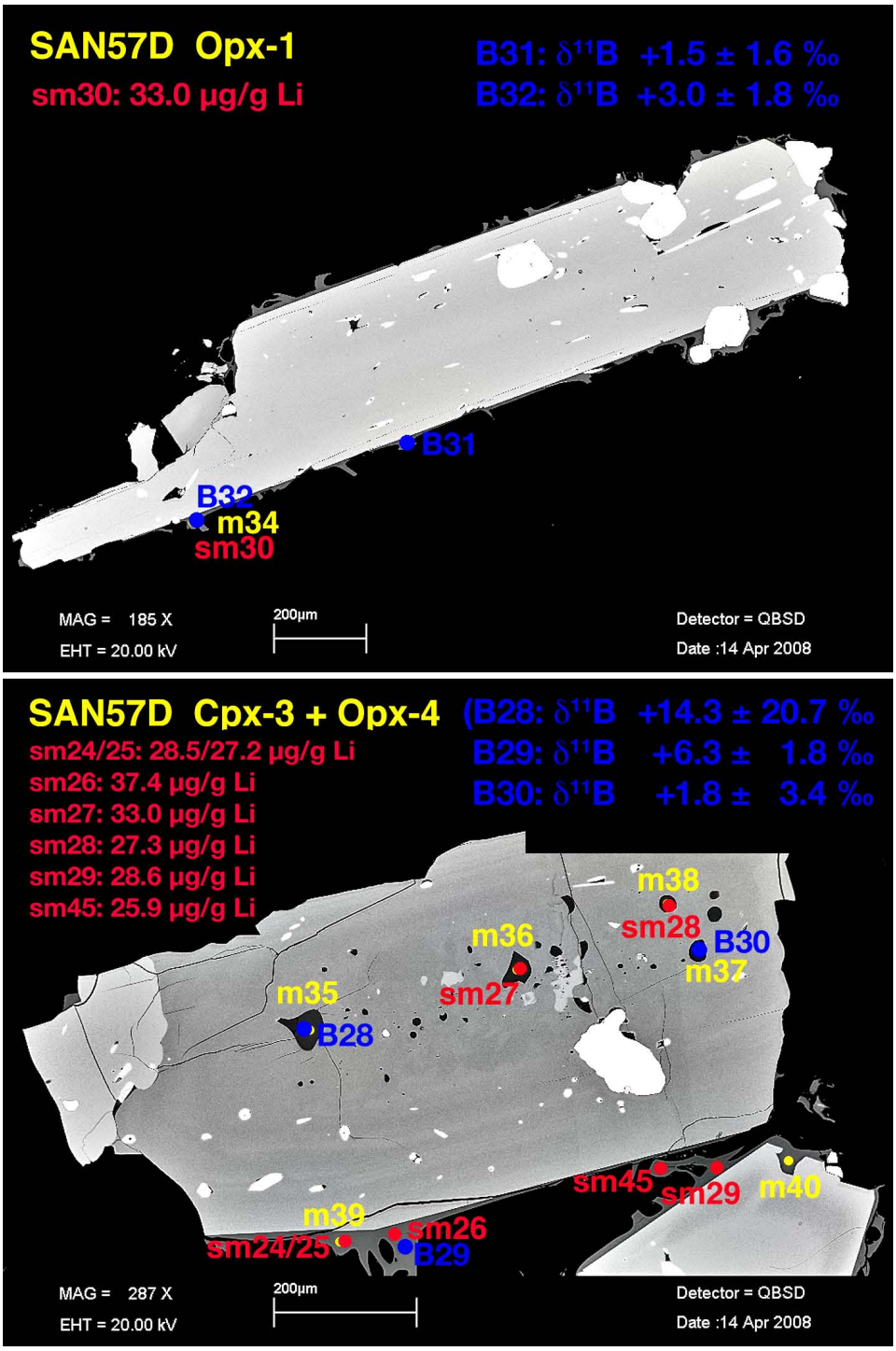


Fig. F.18. Minoan A – Pumice – SAN57D: Pyroxene crystals Opx-1 and Cpx-3 + Opx-4. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

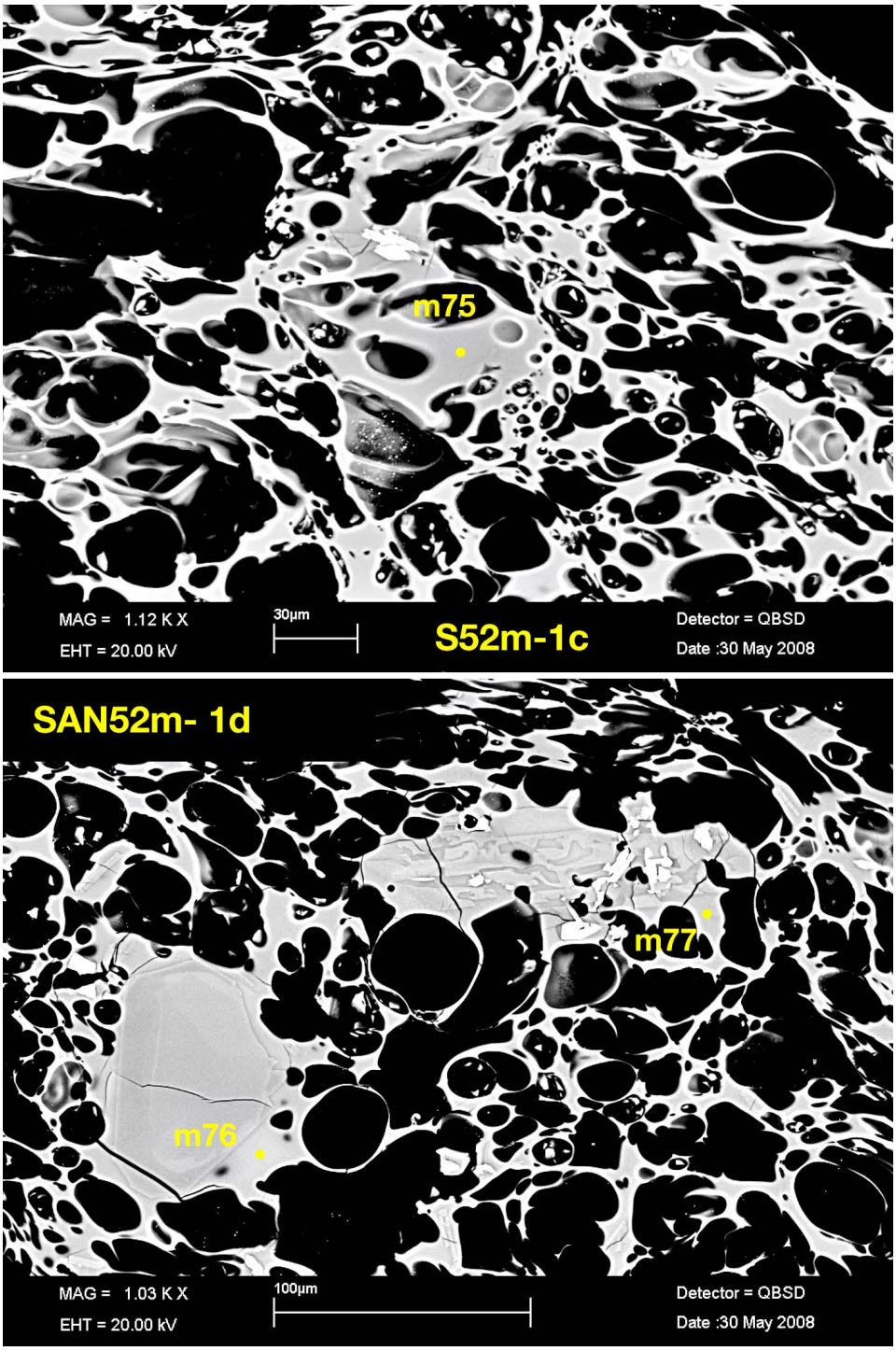


Fig. F.19. Minoan A – Pumice – SAN52m: Yellow points mark locations of EPMA analyses.

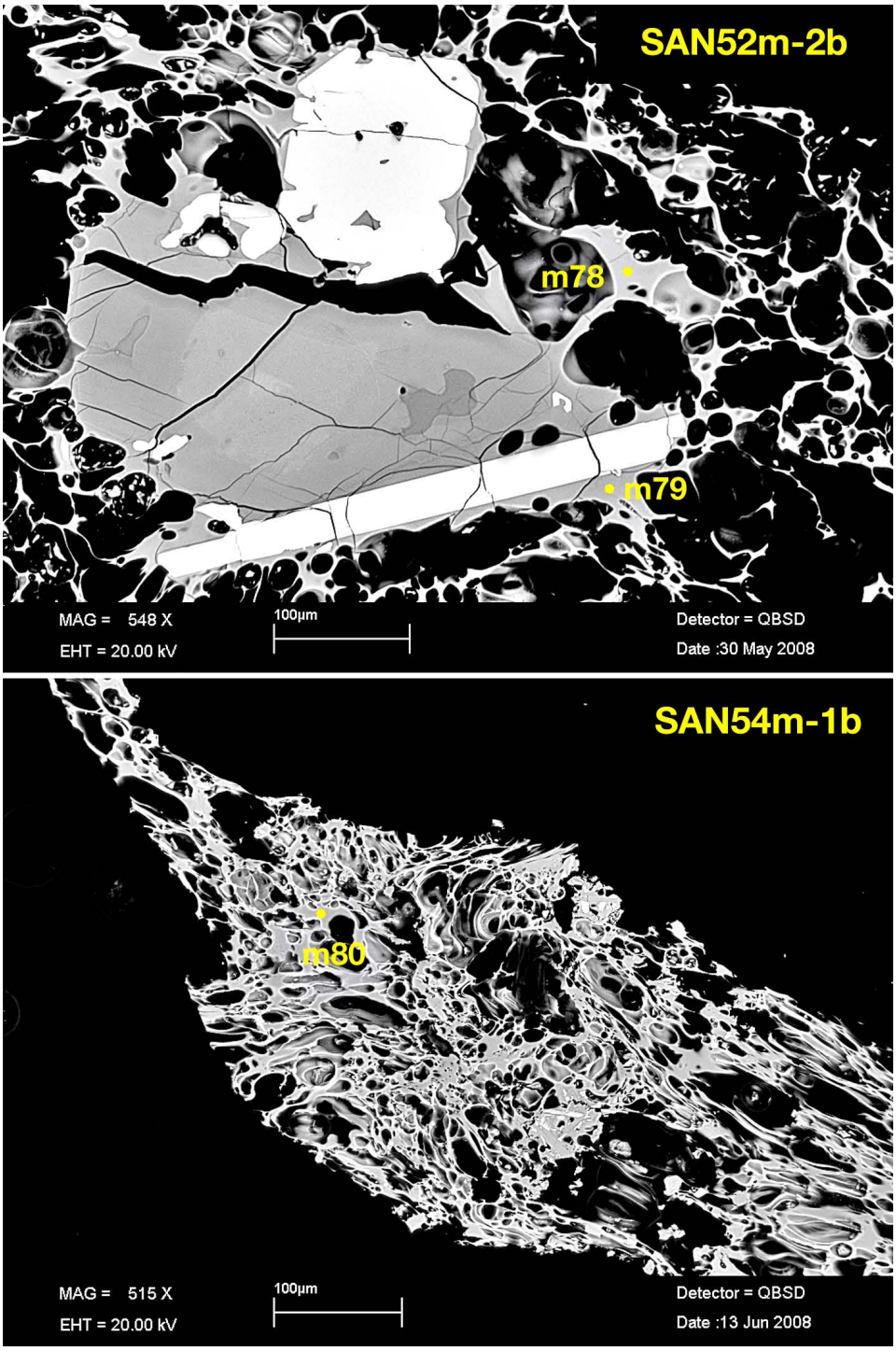


Fig. F.20. Minoan A – Pumice – SAN52m and SAN54m: Yellow points mark locations of EPMA analyses.

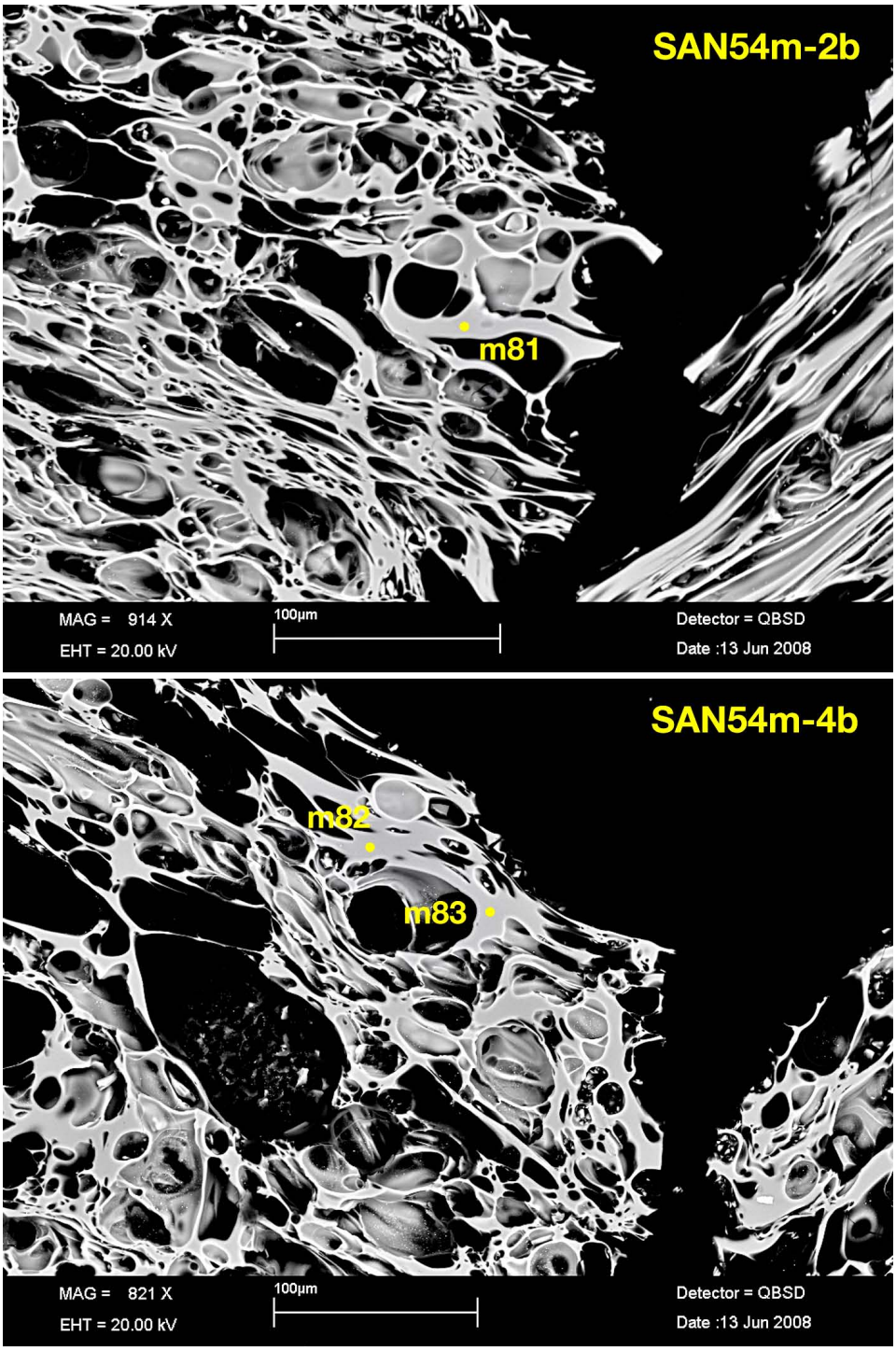


Fig. F.21. Minoan A – Pumice – SAN54m: Yellow points mark locations of EPMA analyses.

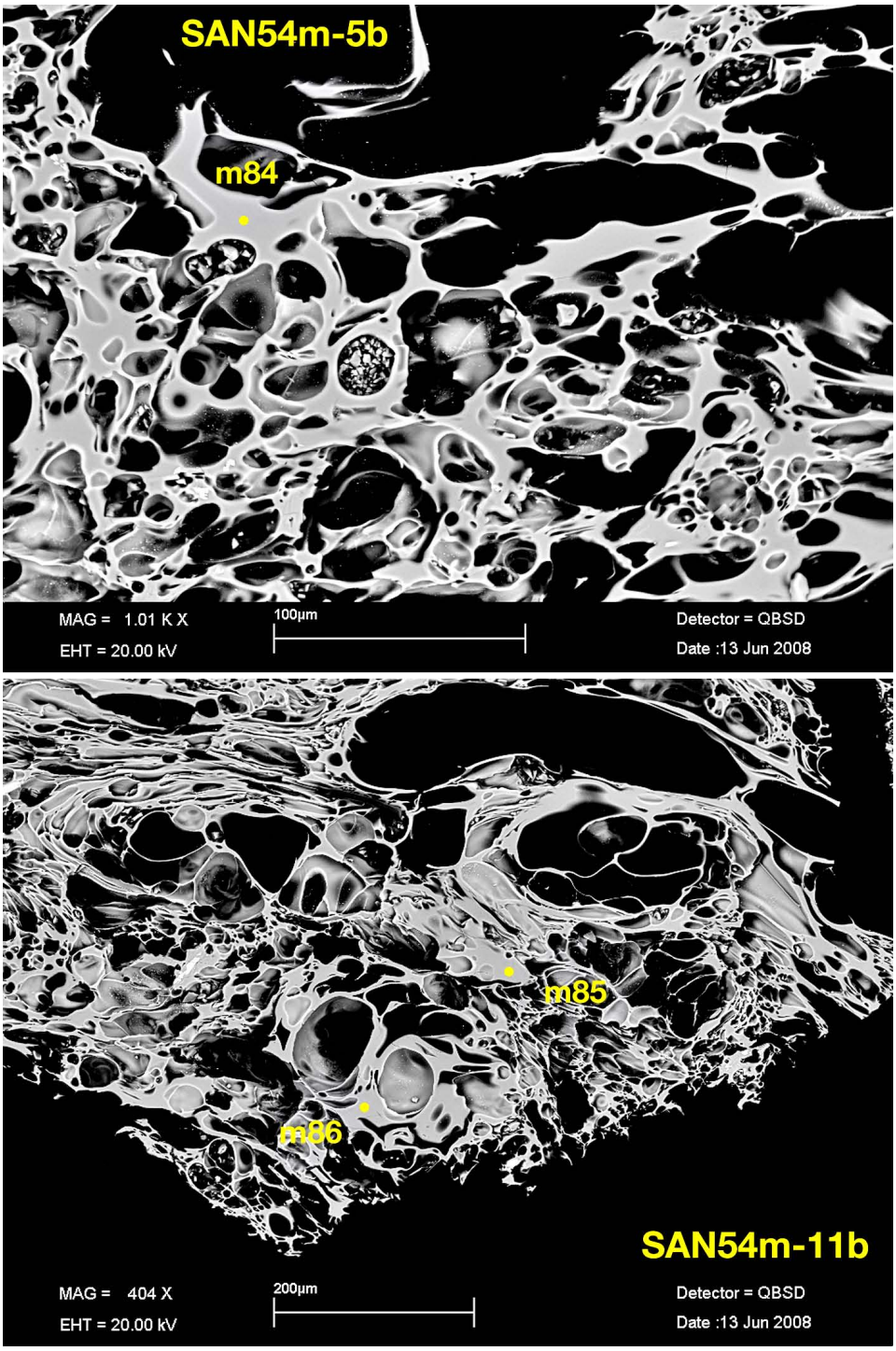


Fig. F.22. Minoan A – Pumice – SAN54m: Yellow points mark locations of EPMA analyses.

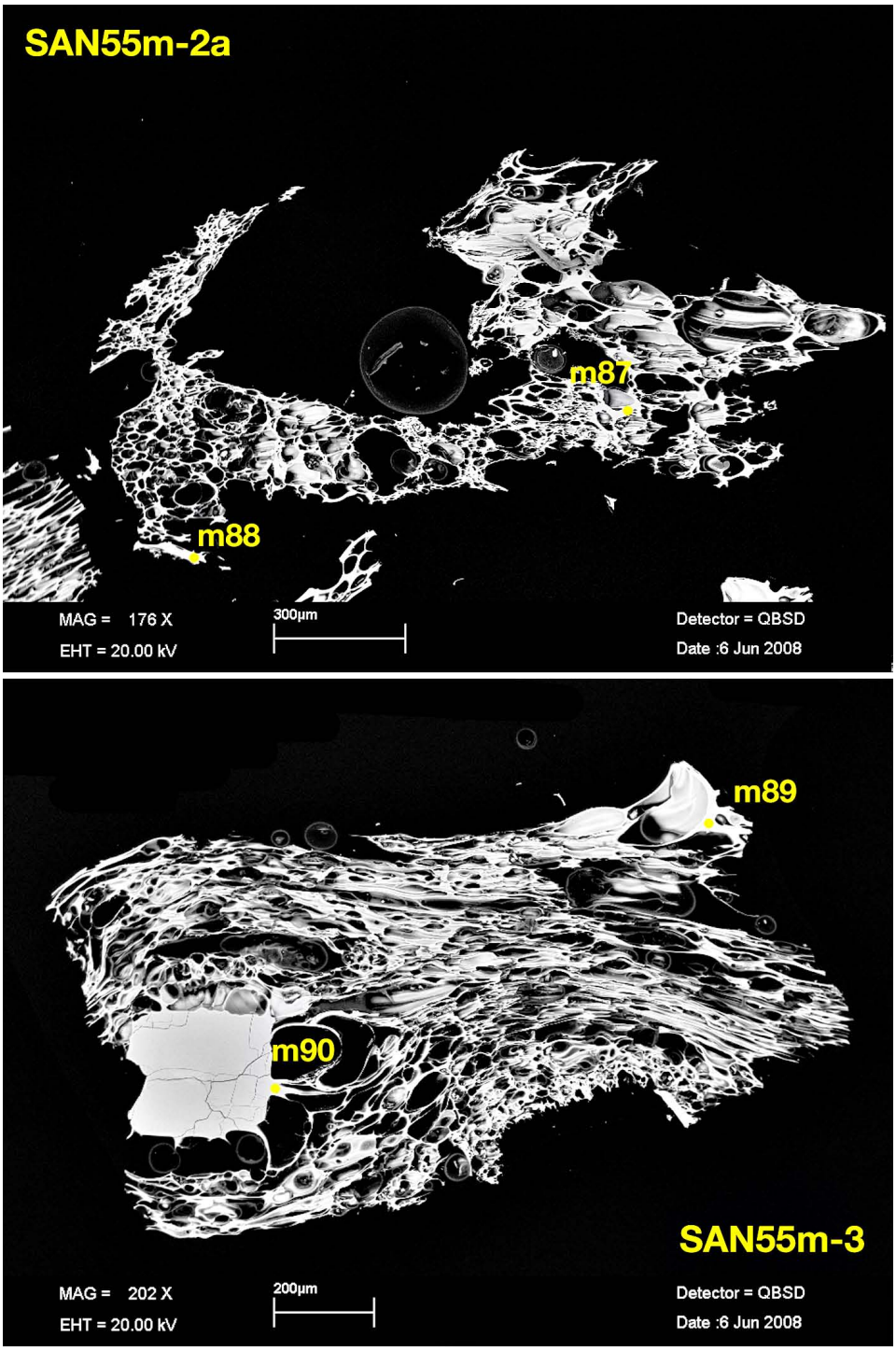


Fig. F.23. Minoan A – Pumice – SAN55m: Yellow points mark locations of EPMA analyses.

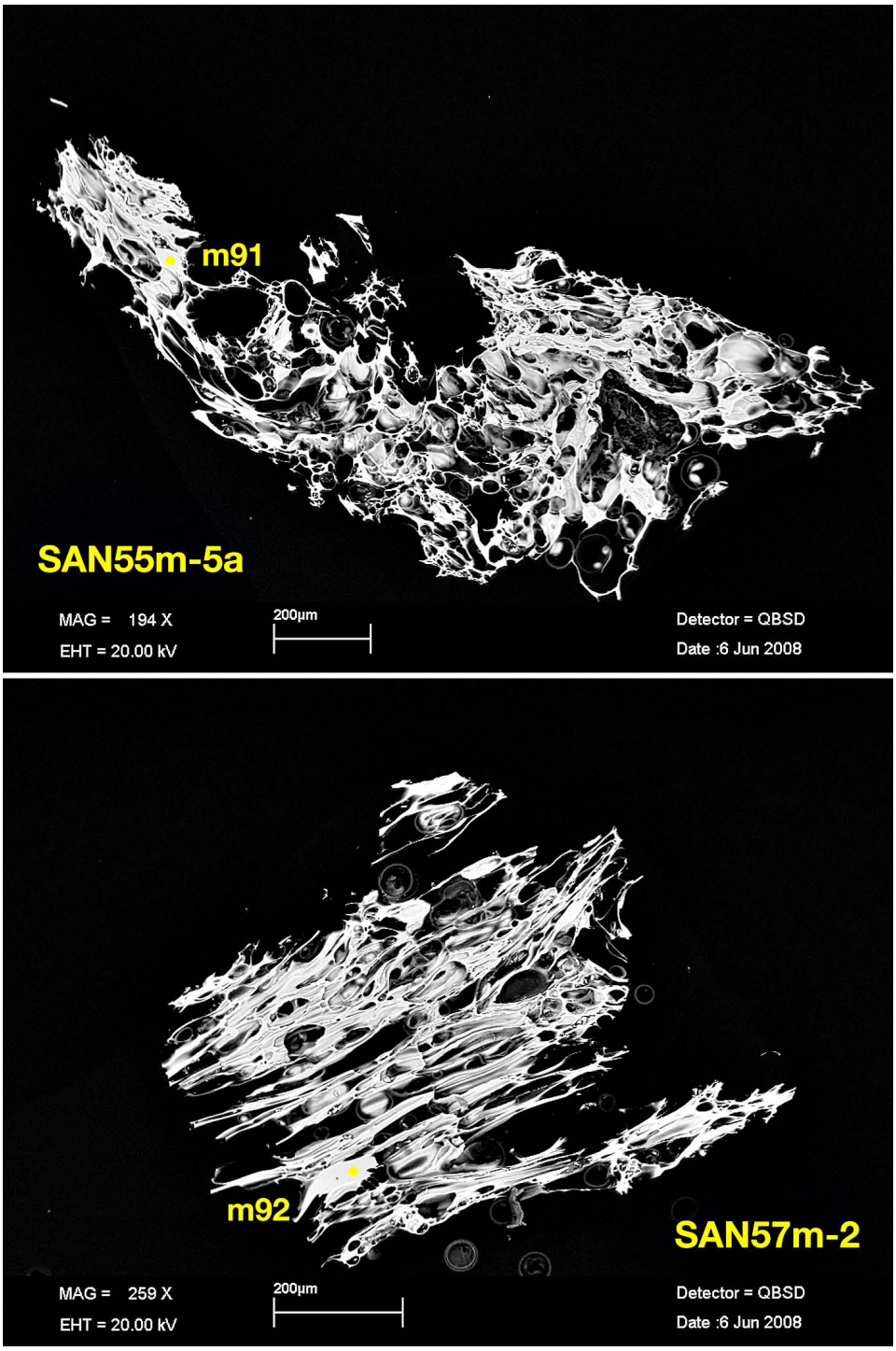


Fig. F.24. Minoan A – Pumice – SAN55m and SAN57m: Yellow points mark locations of EPMA analyses.

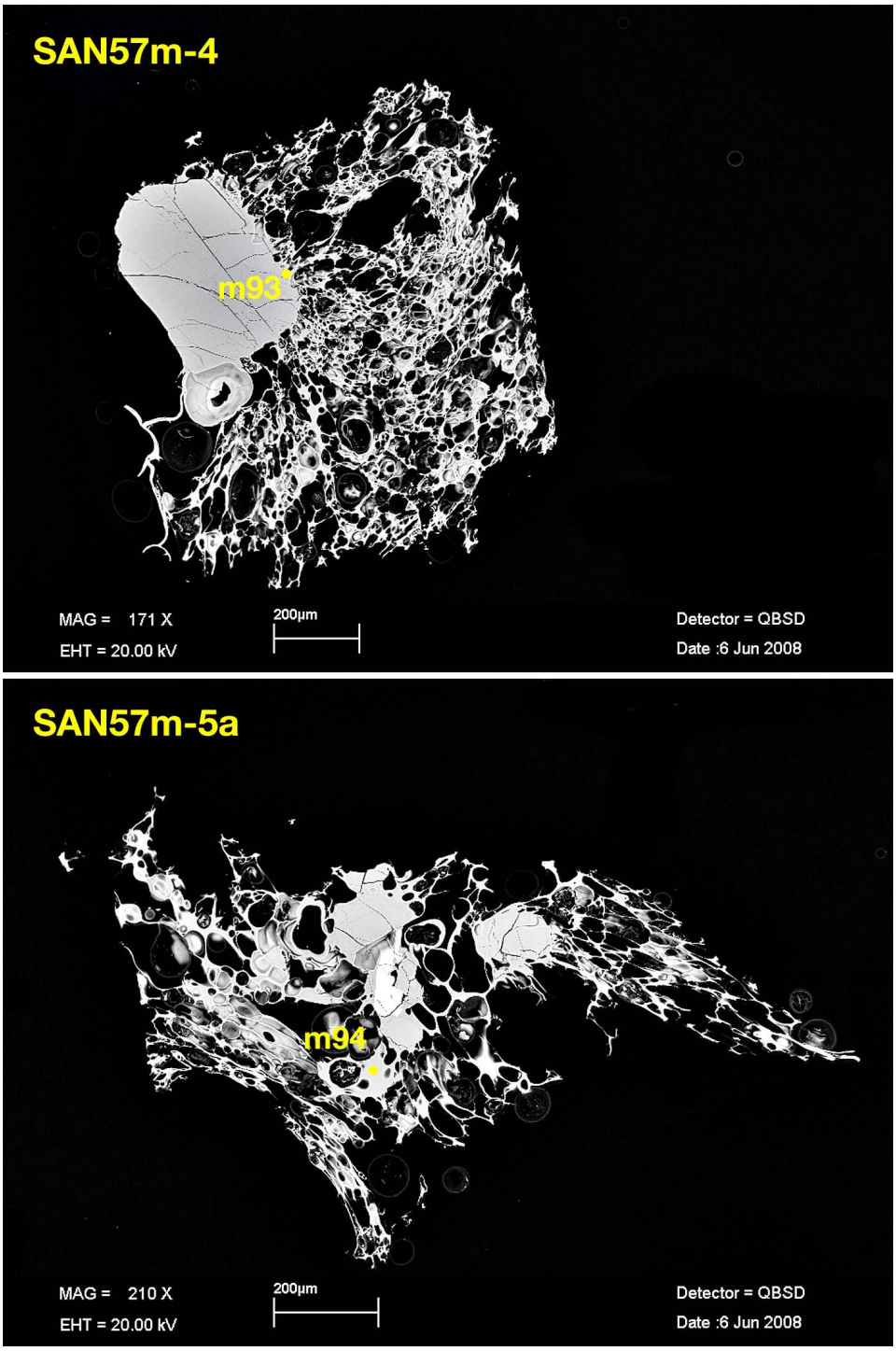


Fig. F.25. Minoan A – Pumice – SAN57m: Yellow points mark locations of EPMA analyses.

F.2. Minoan B: SAN58 and SAN61 Pl and Px

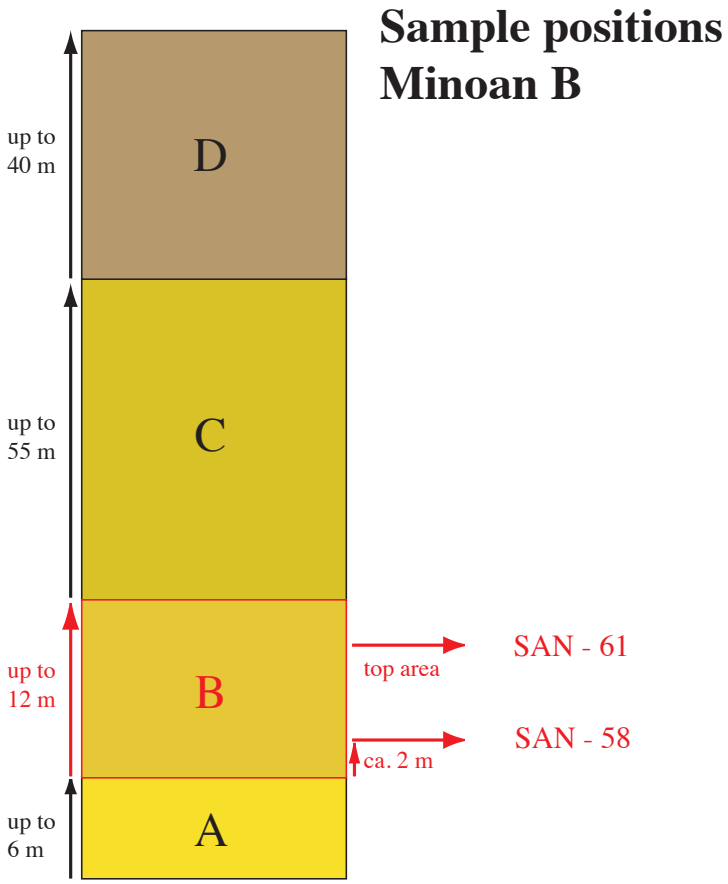


Fig. F.26. Positions of pumice samples taken from Minoan Unit B.

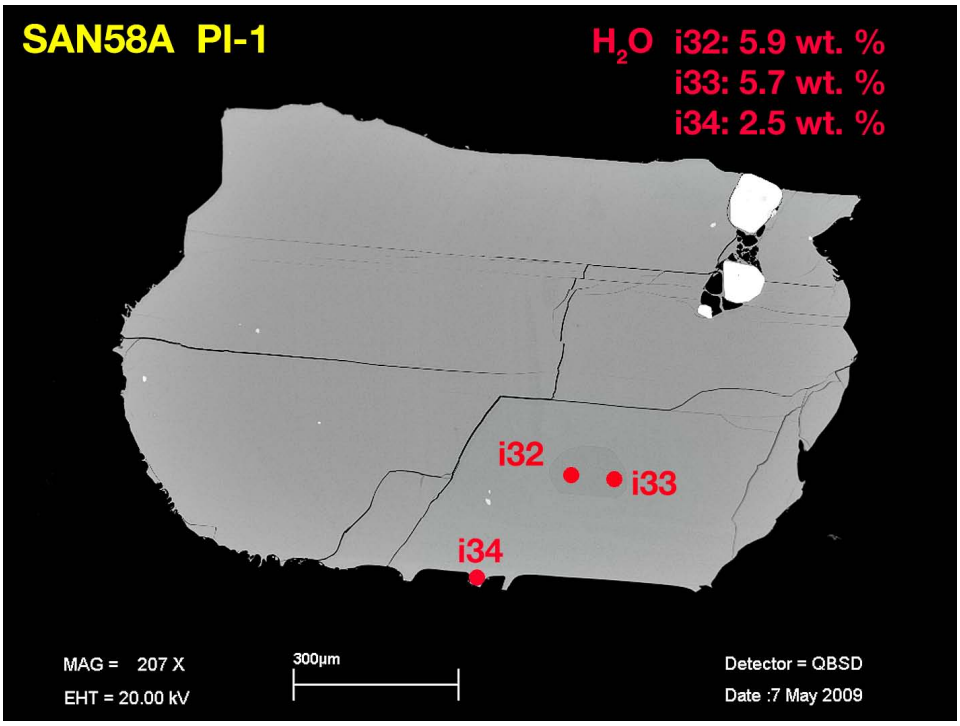


Fig. F.27. Minoan B – Pumice – SAN58A: Plagioclase crystal Pl-1. Red points mark locations of SIMS analyses.

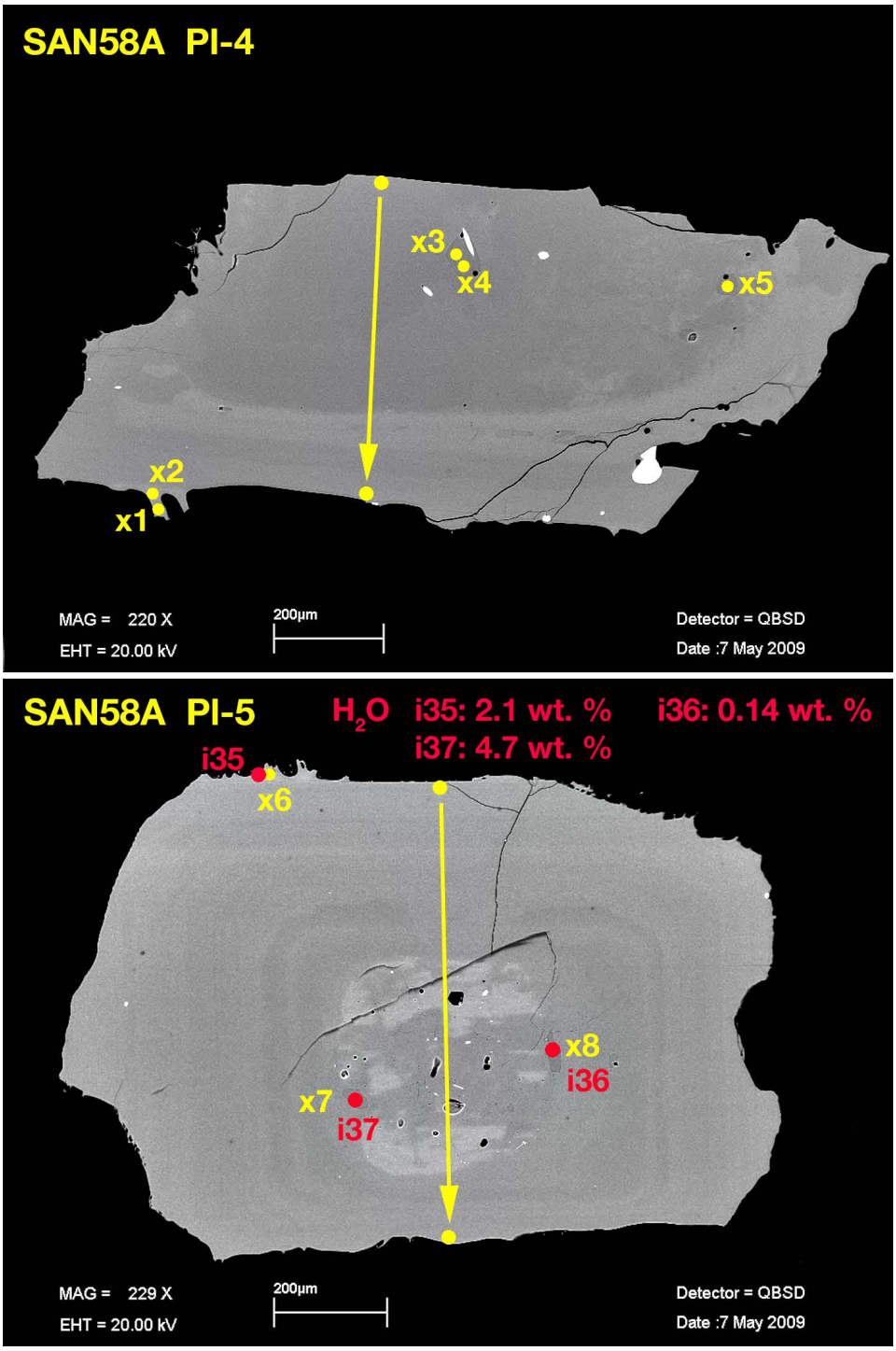


Fig. F.28. Minoan B – Pumice – SAN58A: Plagioclase crystals Pl-4 and Pl-5. Yellow points mark locations of EPMA analyses, and red points mark locations of SIMS analyses..

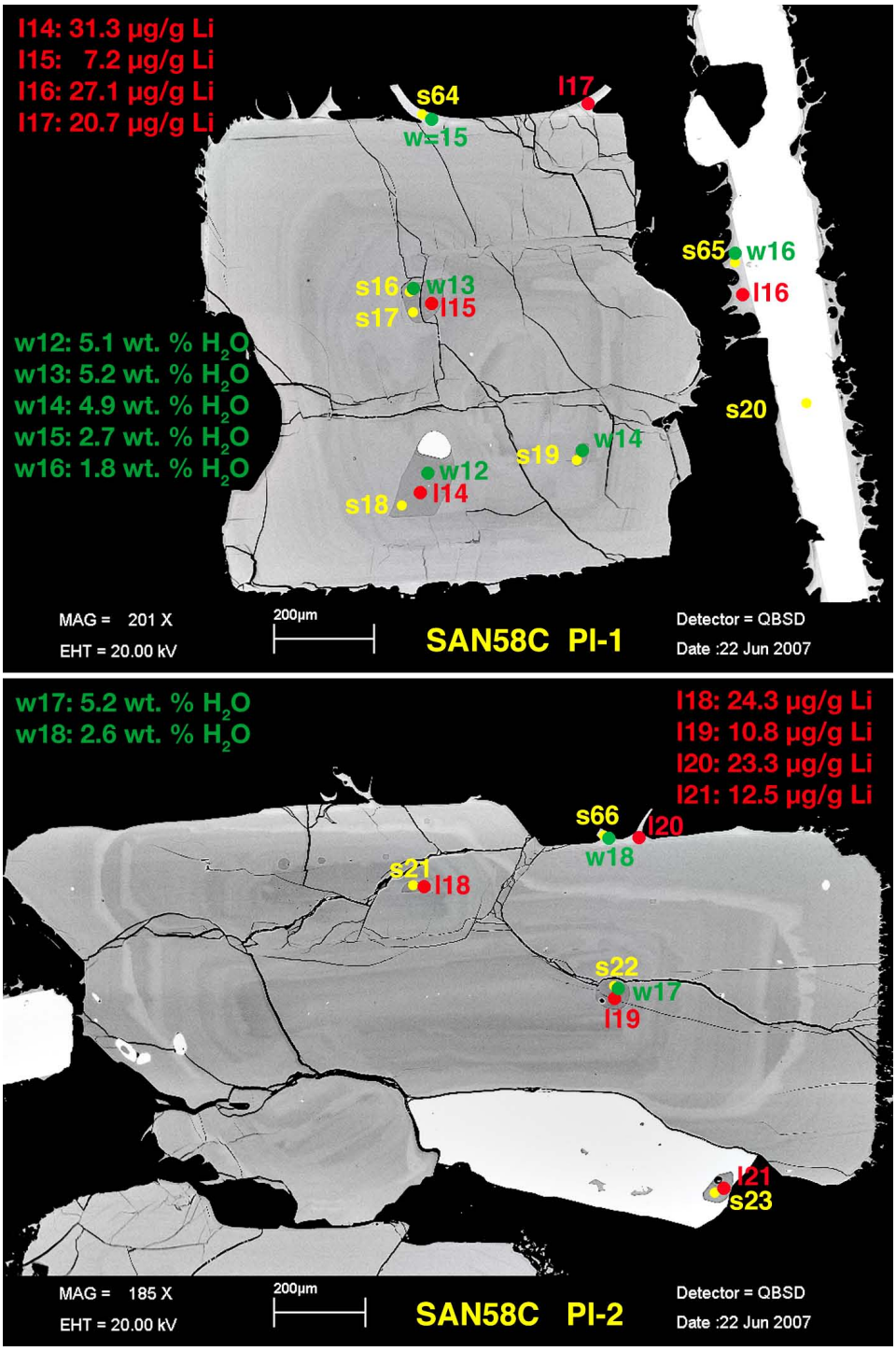


Fig. F.29. Minoan B – Pumice – SAN58C: Plagioclase crystals Pl-1 and Pl-2. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

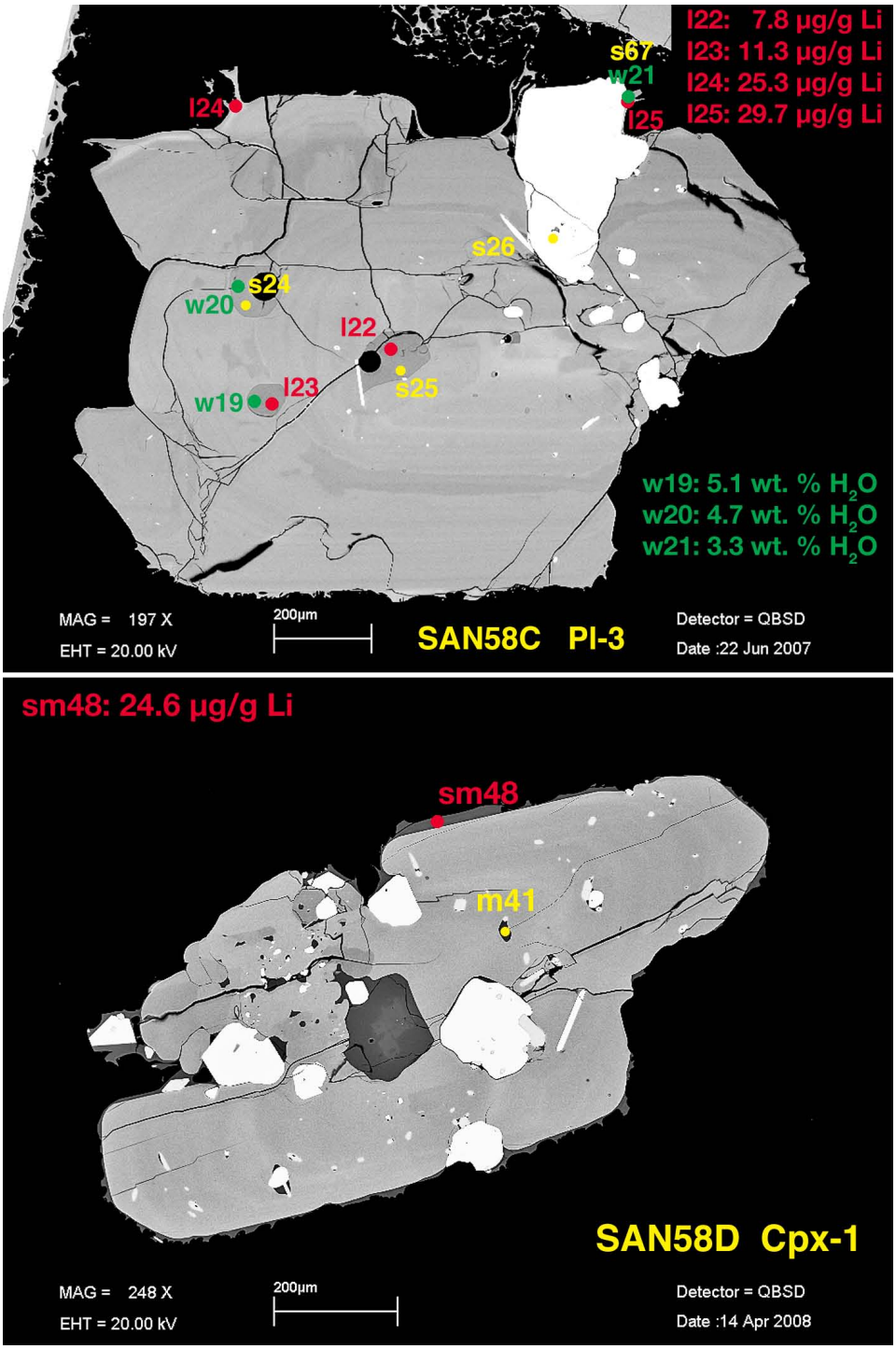


Fig. F.30. Minoan B – Pumice – SAN58C and SAN58D: Plagioclase and pyroxene crystals Pl-3 and Cpx-1. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

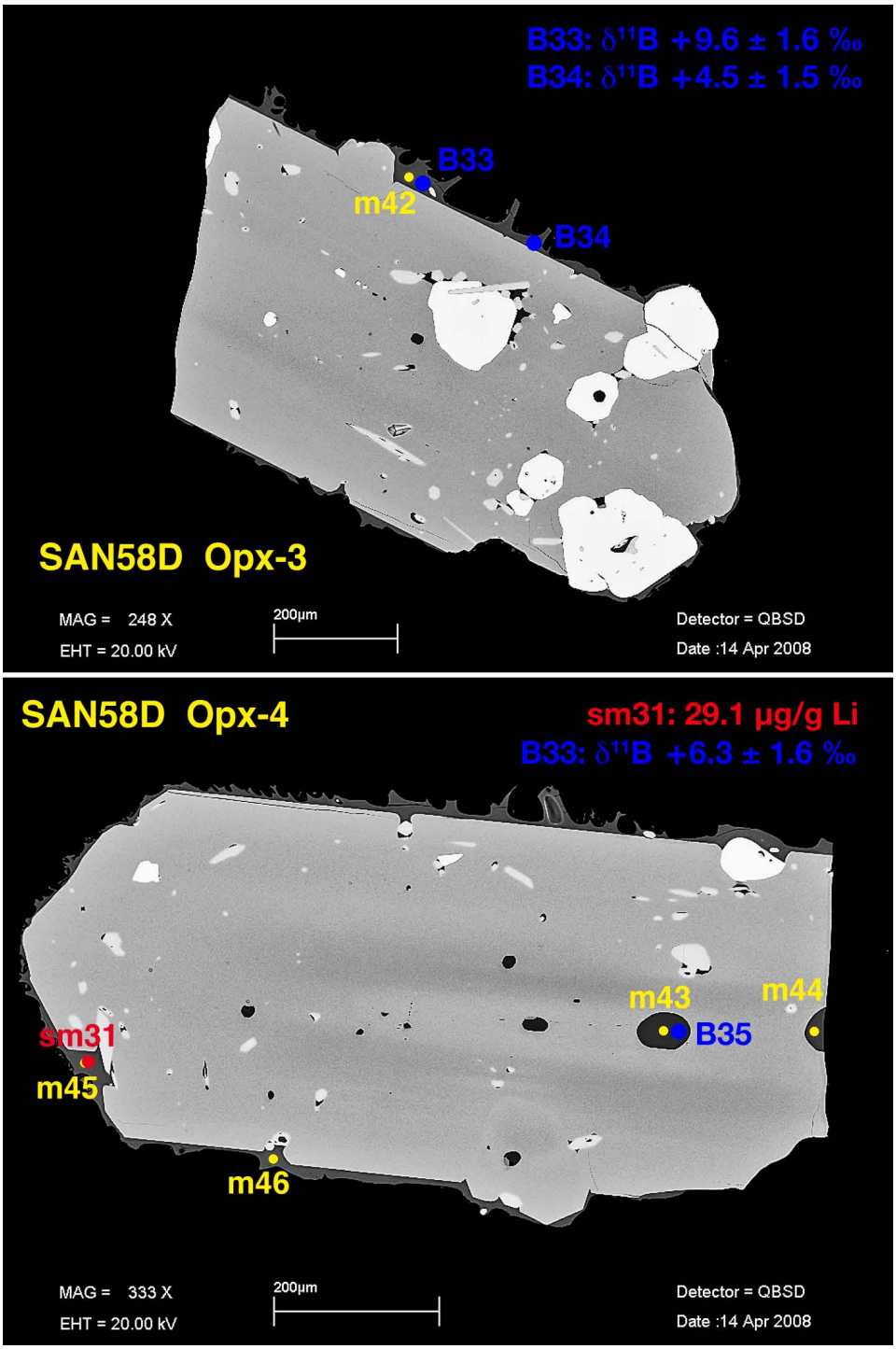


Fig. F.31. Minoan B – Pumice – SAN58D: Pyroxene crystals Opx-3 and Opx-4. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

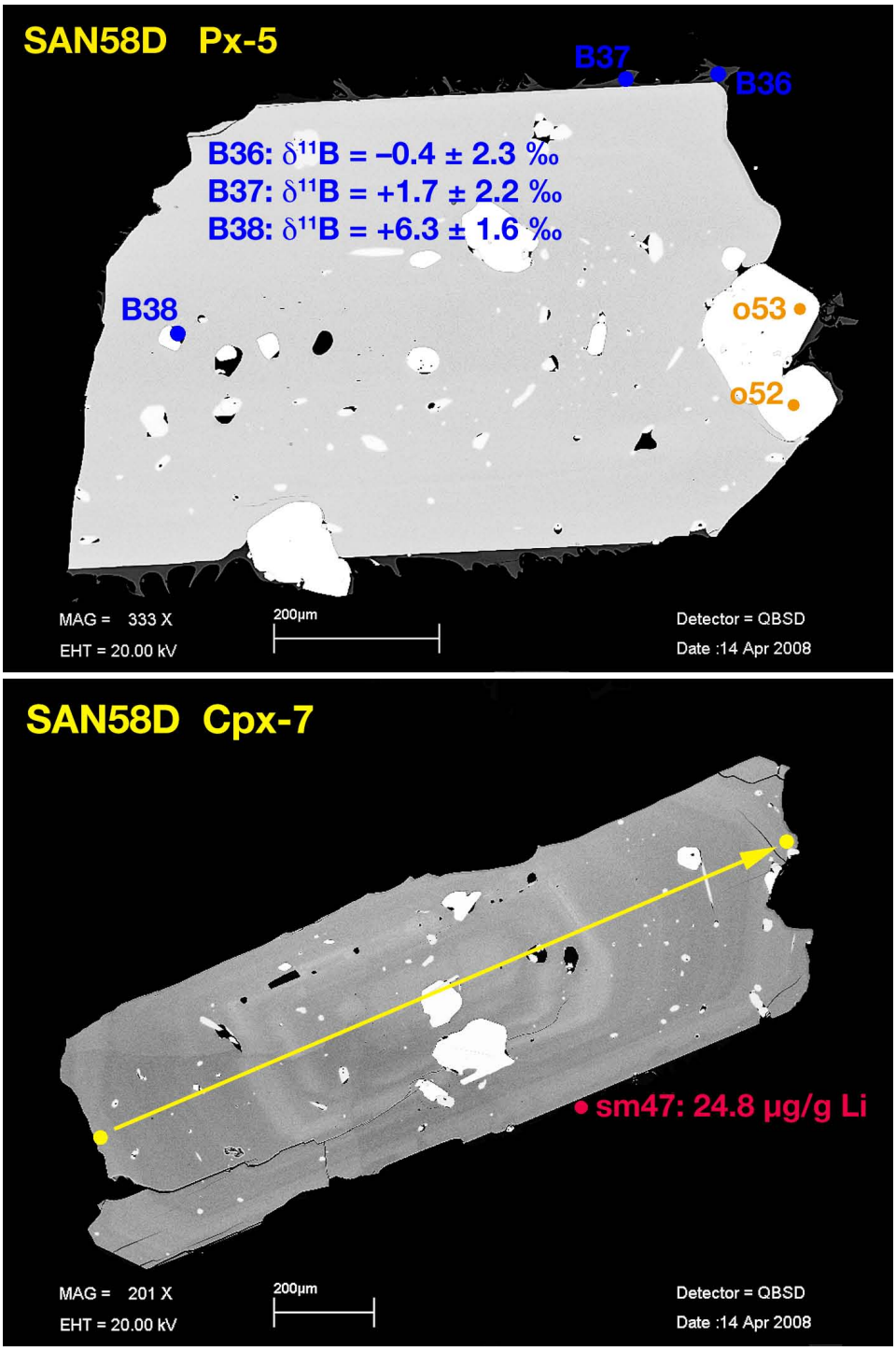


Fig. F.32. Minoan B – Pumice – SAN58D: Pyroxene crystals Px-5 and Cpx-7. Orange points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

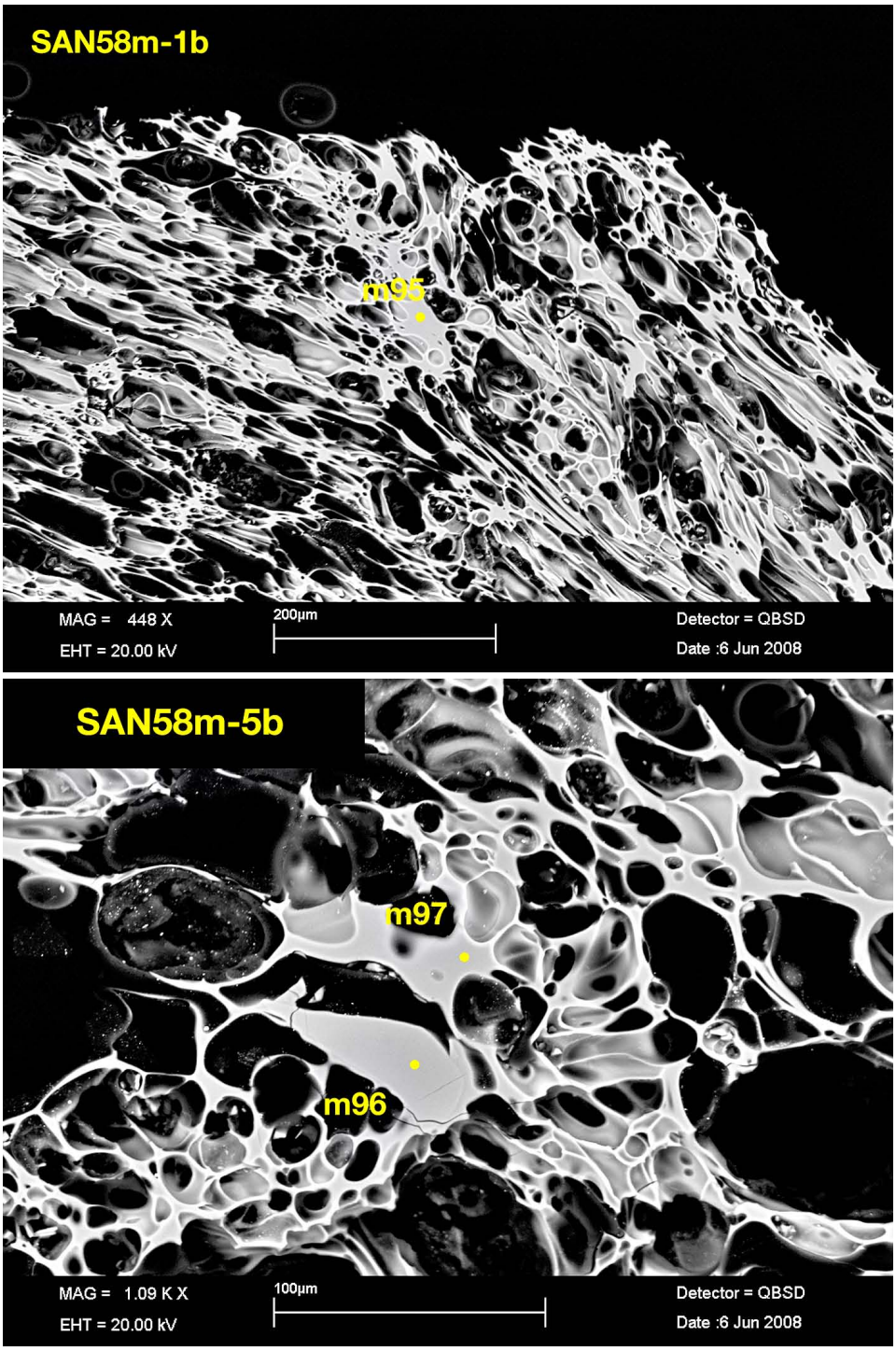


Fig. F.33. Minoan B – Pumice – SAN58m: Yellow points mark locations of EPMA analyses.

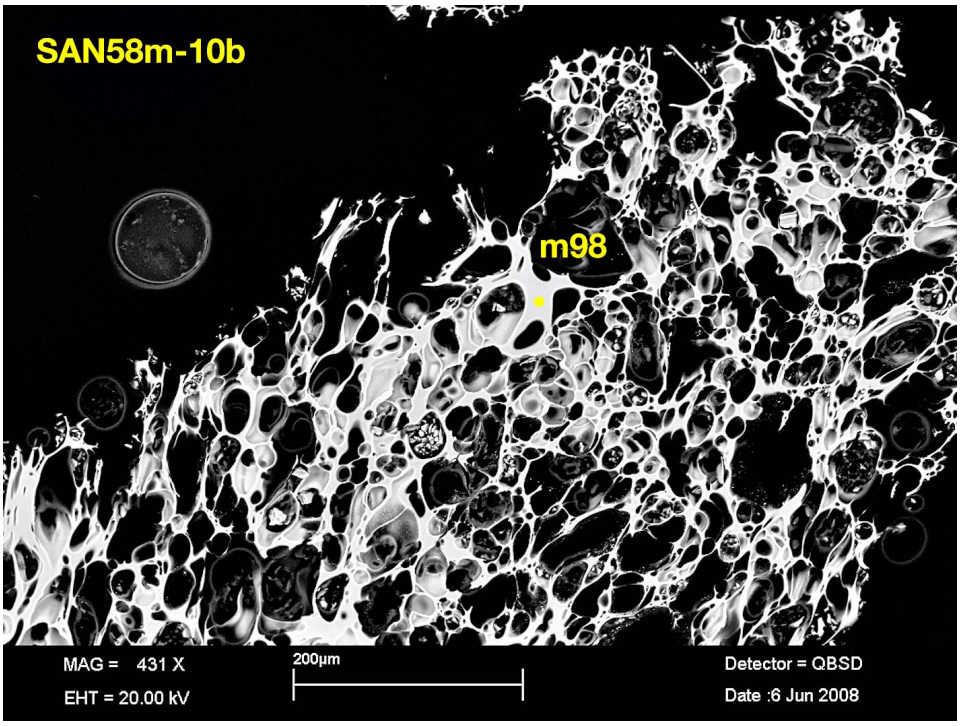


Fig. F.34. Minoan B – Pumice – SAN58m: Yellow points mark locations of EPMA analyses.

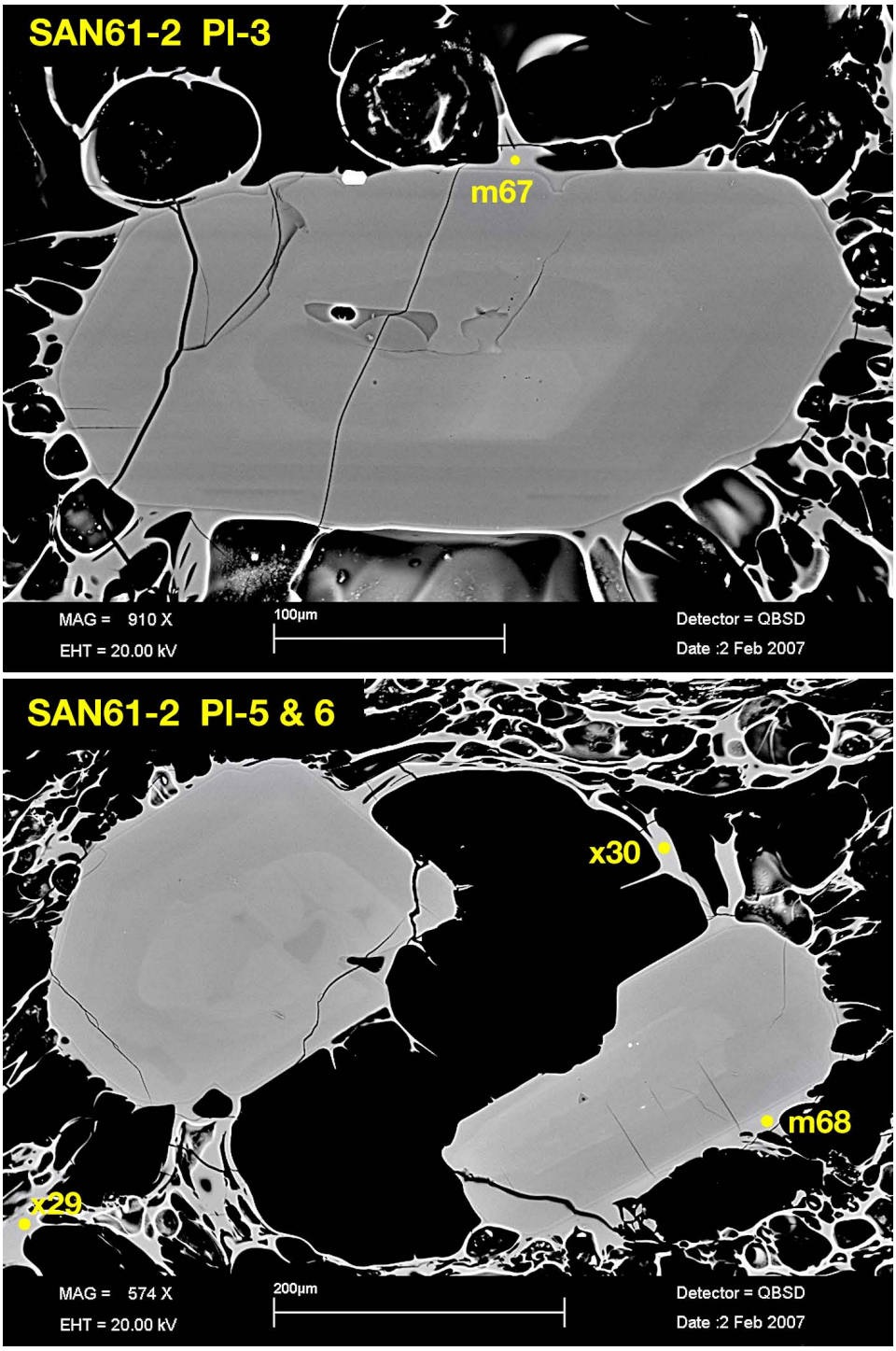


Fig. F.35. Minoan B – Pumice – SAN61-2: Plagioclase crystals Pl-3, Pl-5 and Pl-6. Yellow points mark locations of EPMA analyses.

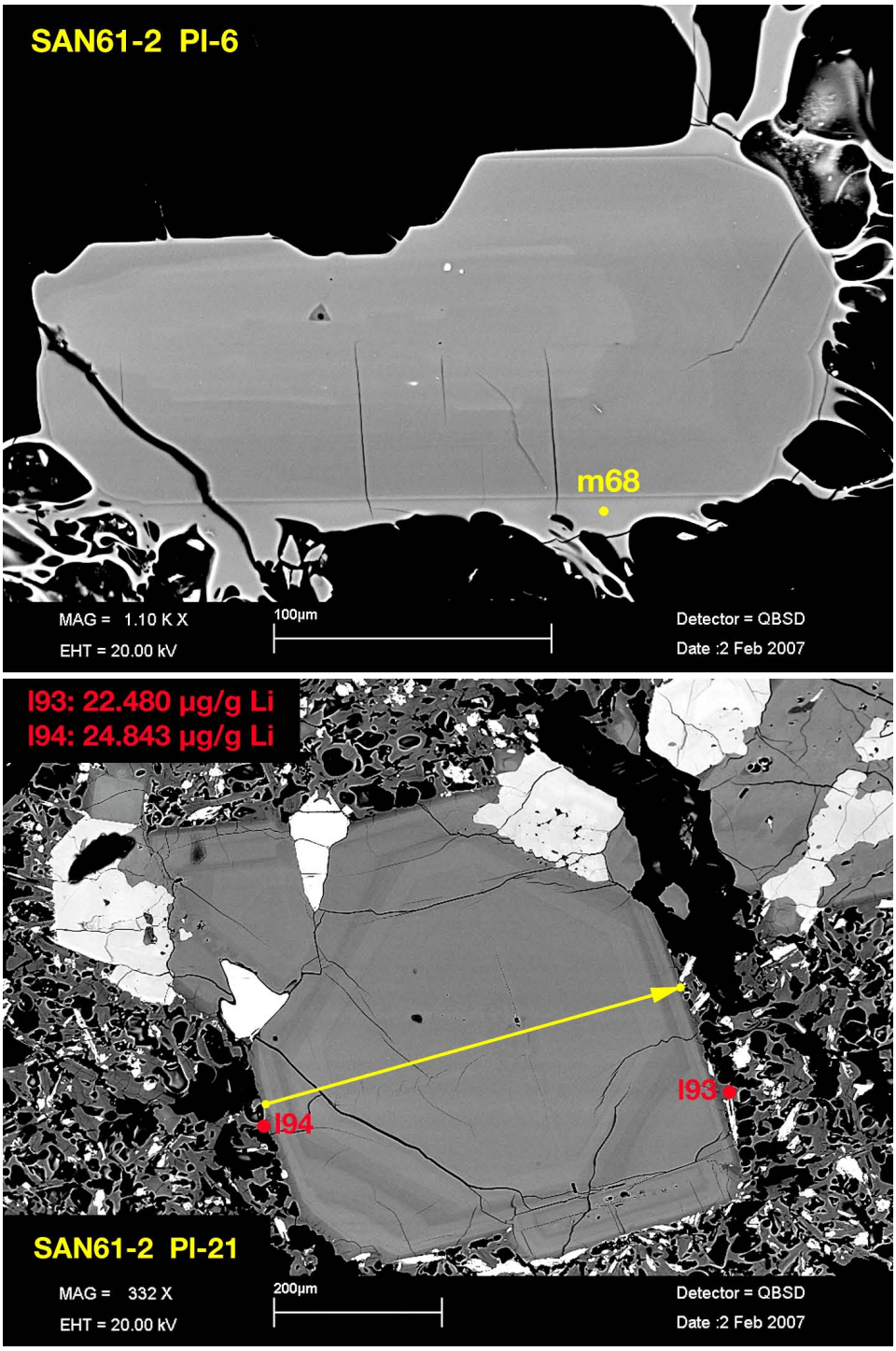


Fig. F.36. Minoan B – Pumice – SAN61-2: Plagioclase crystals Pl-6 and Pl-21. Yellow points mark locations of EPMA analyses.

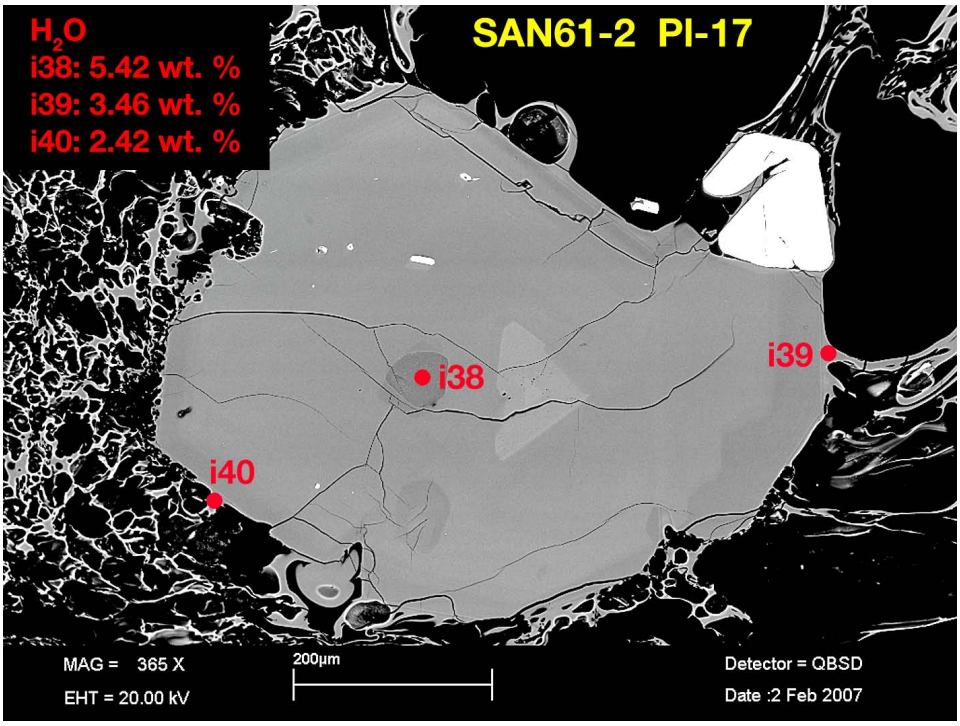


Fig. F.37. Minoan B – Pumice – SAN61-2: Plagioclase crystal Pl-17. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

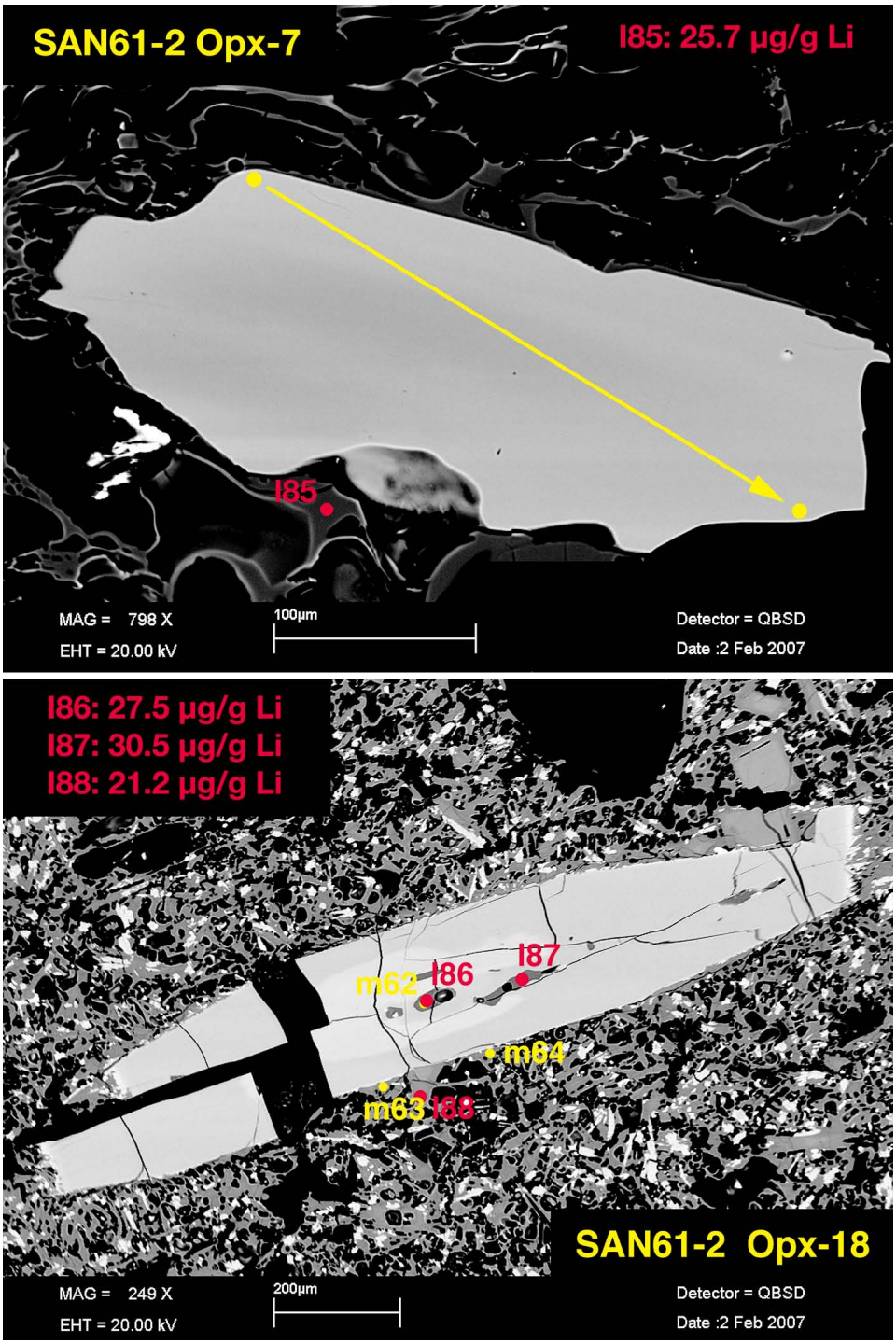


Fig. F.38. Minoan B – Pumice – SAN61-2: Pyroxene crystals Opx-7 and Opx-18. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

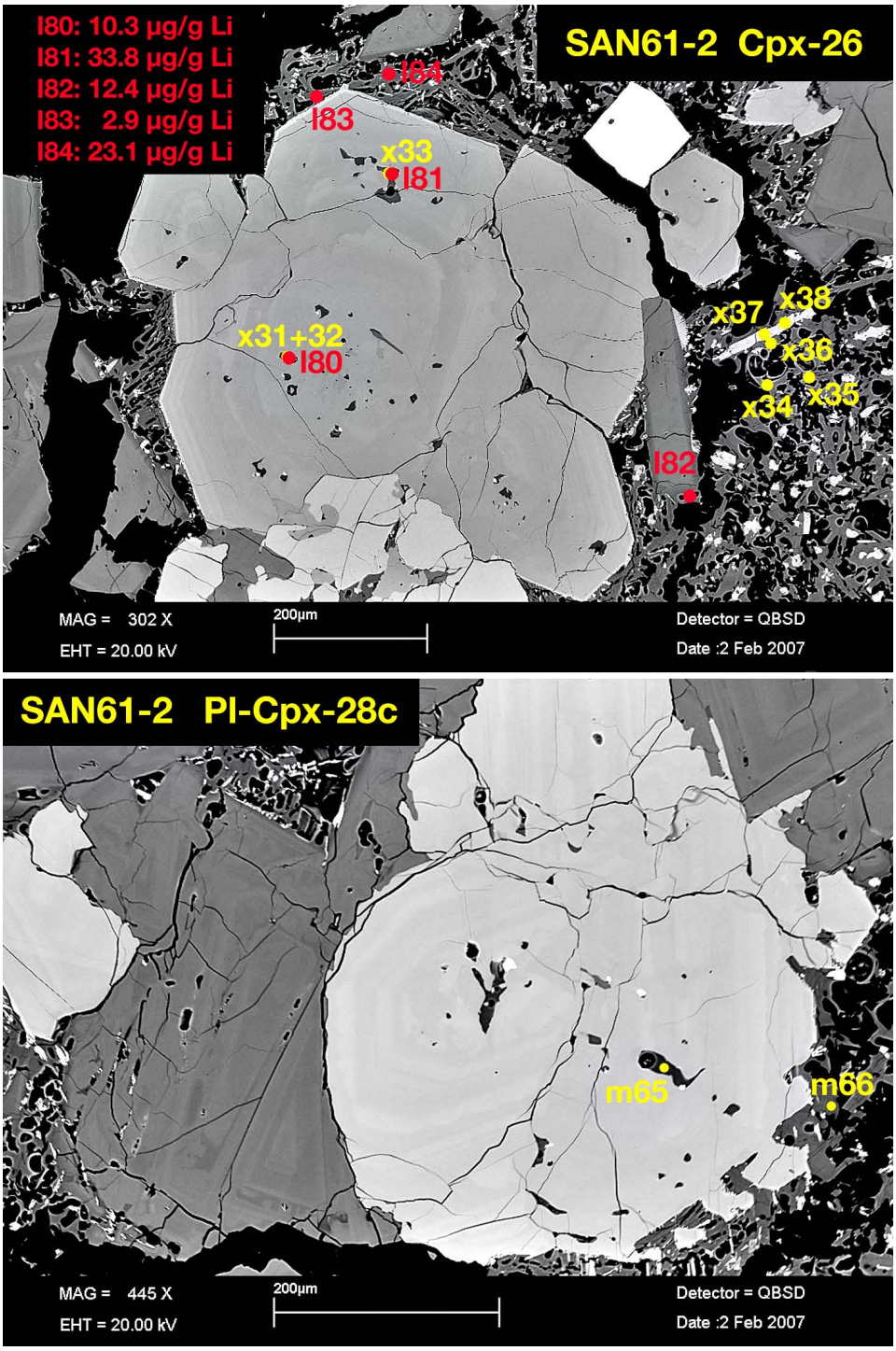


Fig. F.39. Minoan B – Pumice – SAN61-2: Pyroxene crystals Cpx-26 and Pl-Cpx-28c. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

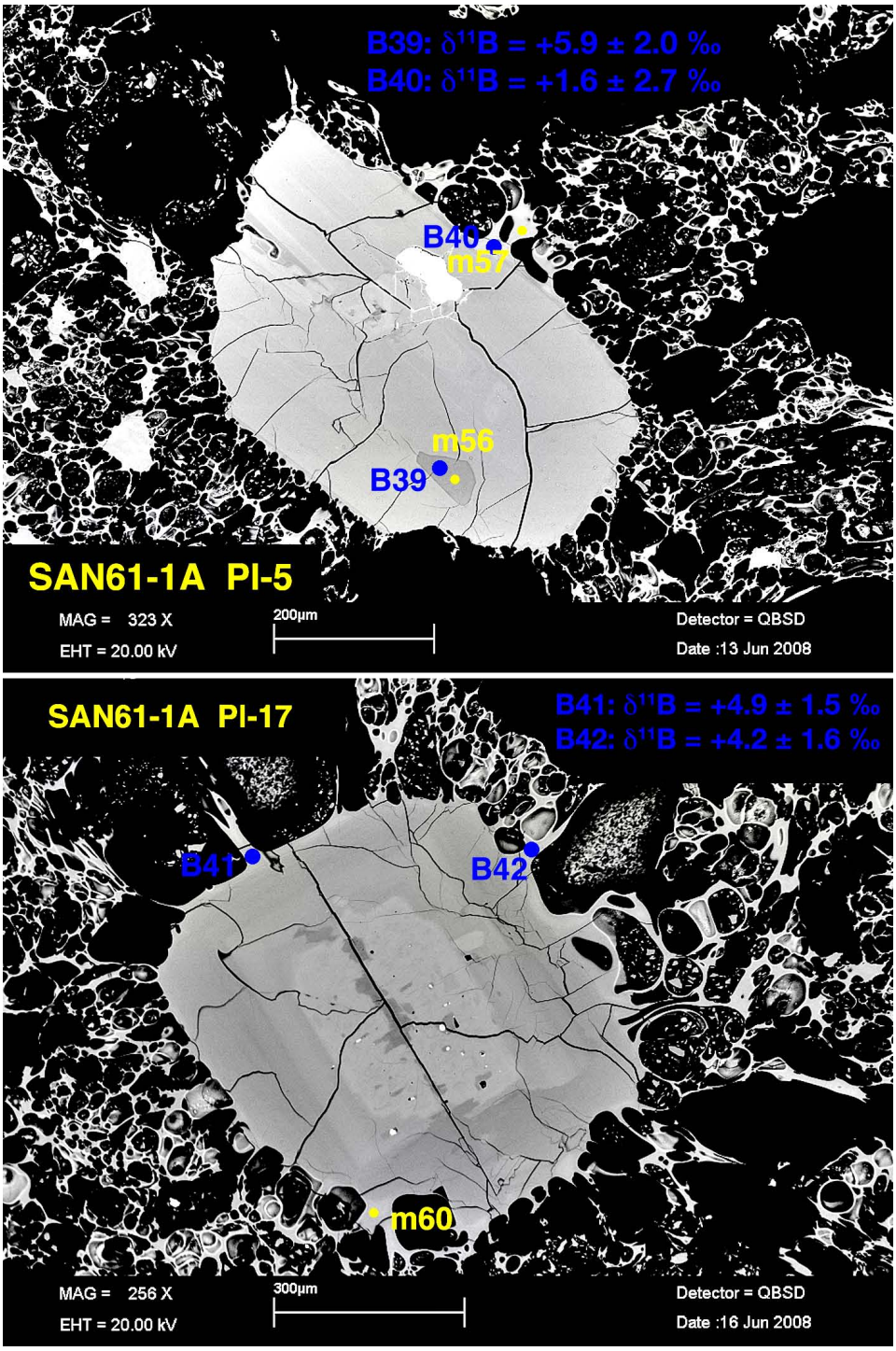


Fig. F.40. Minoan B – Pumice – SAN61-1A: Plagioclase crystals Pl-5 and Pl-17. Yellow points mark locations of EPMA analyses; blue points mark locations of SIMS analyses.

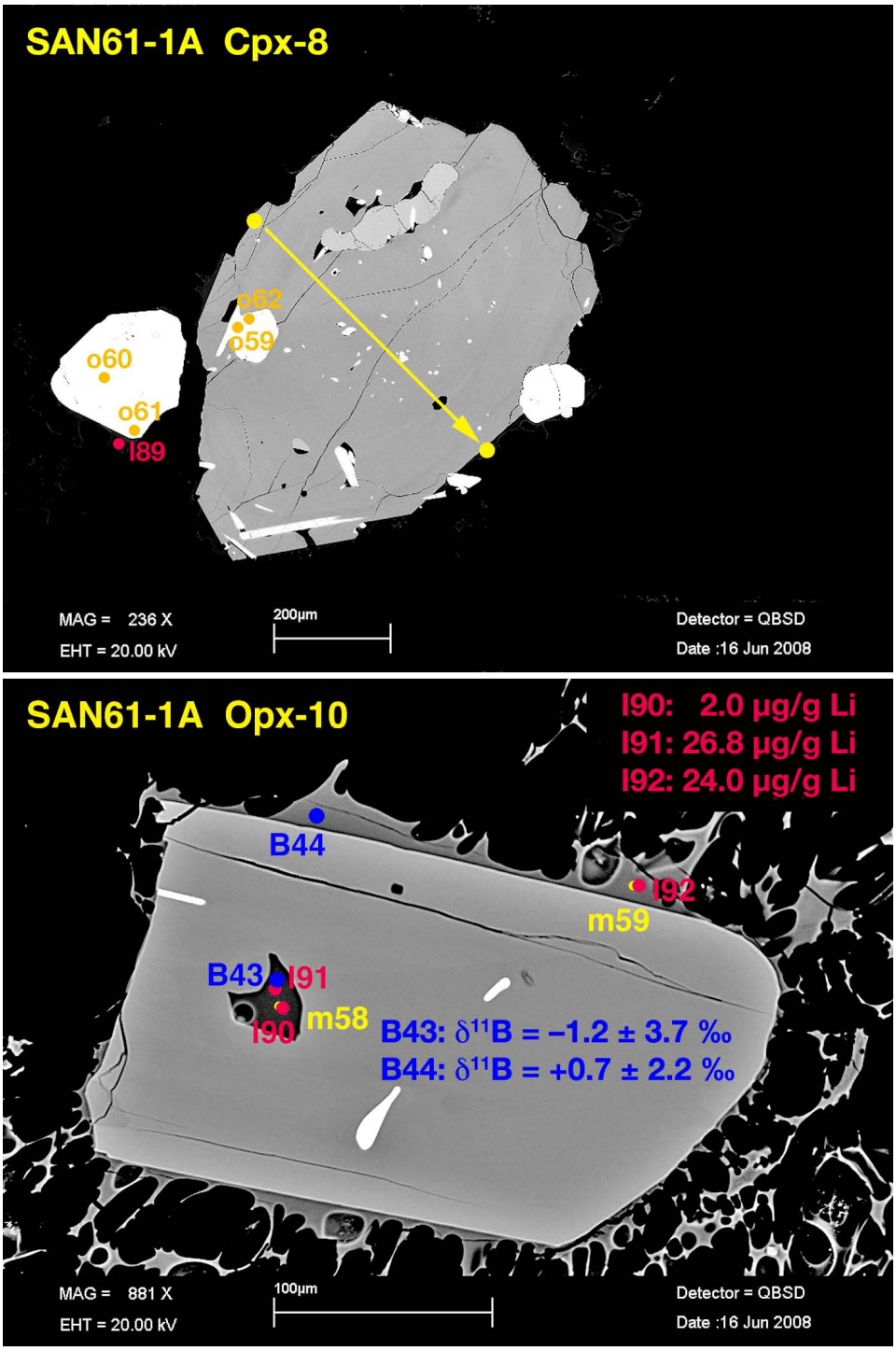


Fig. F.41. Minoan B – Pumice – SAN61-1A: Pyroxene crystals Cpx-8 and Opx-10. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

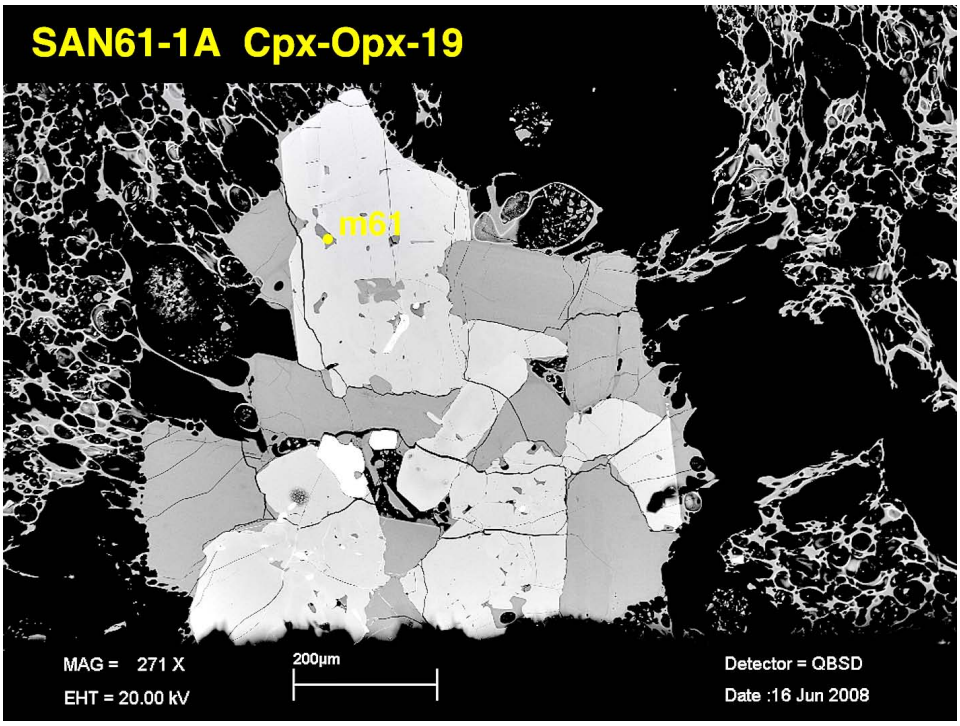


Fig. F.42. Minoan B – Pumice – SAN61-1A: Pyroxene crystals Cpx-Opx-19. Yellow points mark locations of EPMA analyses.

F.3. Minoan C: SAN59 Pl and Px

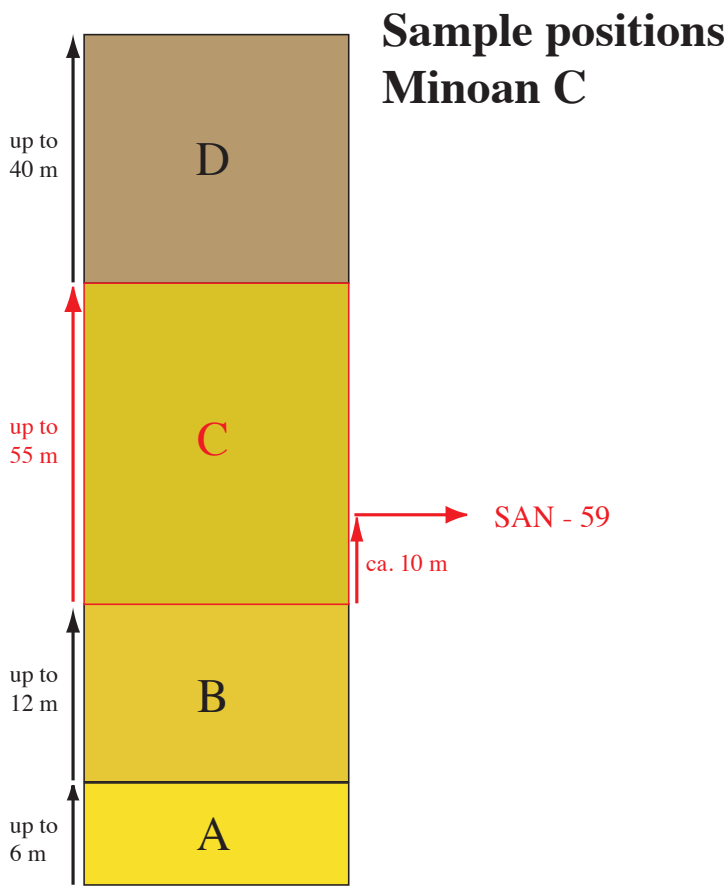


Fig. F.43. Positions of pumice samples taken from Minoan Unit C.

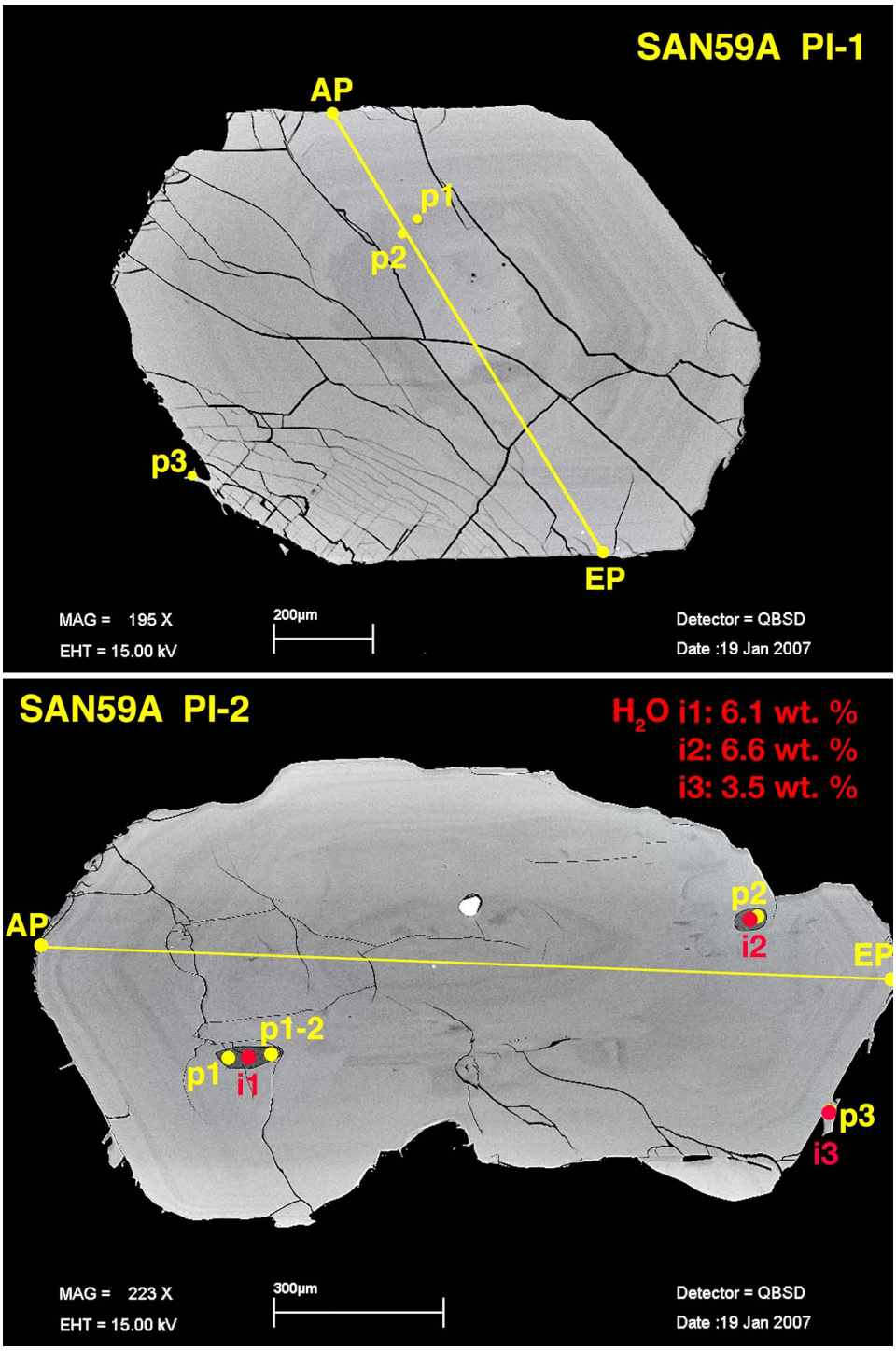


Fig. F.44. Minoan C – Pumice – SAN59A: Plagioclase crystals Pl-1 and Pl-2. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

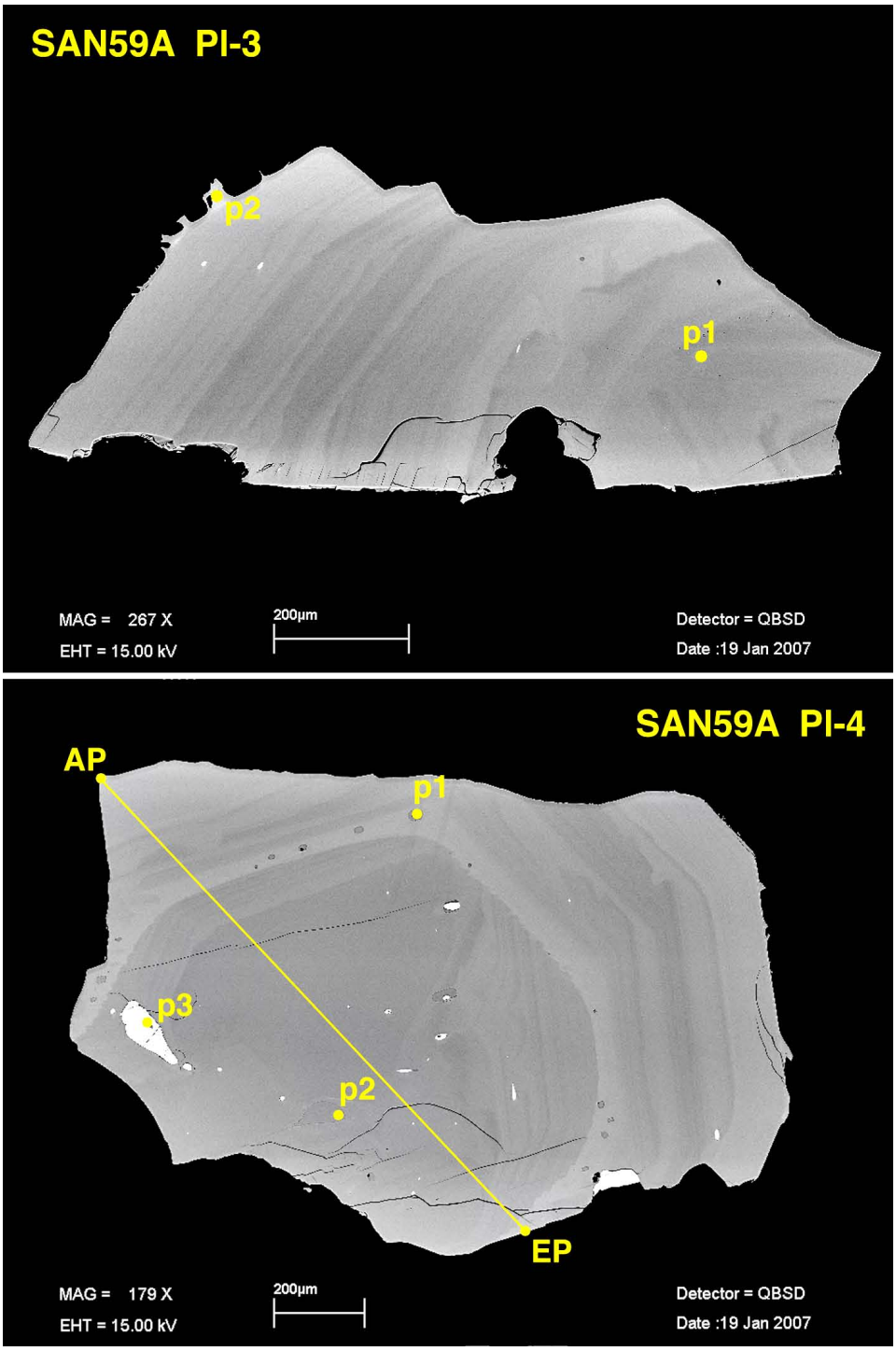


Fig. F.45. Minoan C – Pumice – SAN59A: Plagioclase crystals Pl-3 and Pl-4. Yellow points mark locations of EPMA analyses.

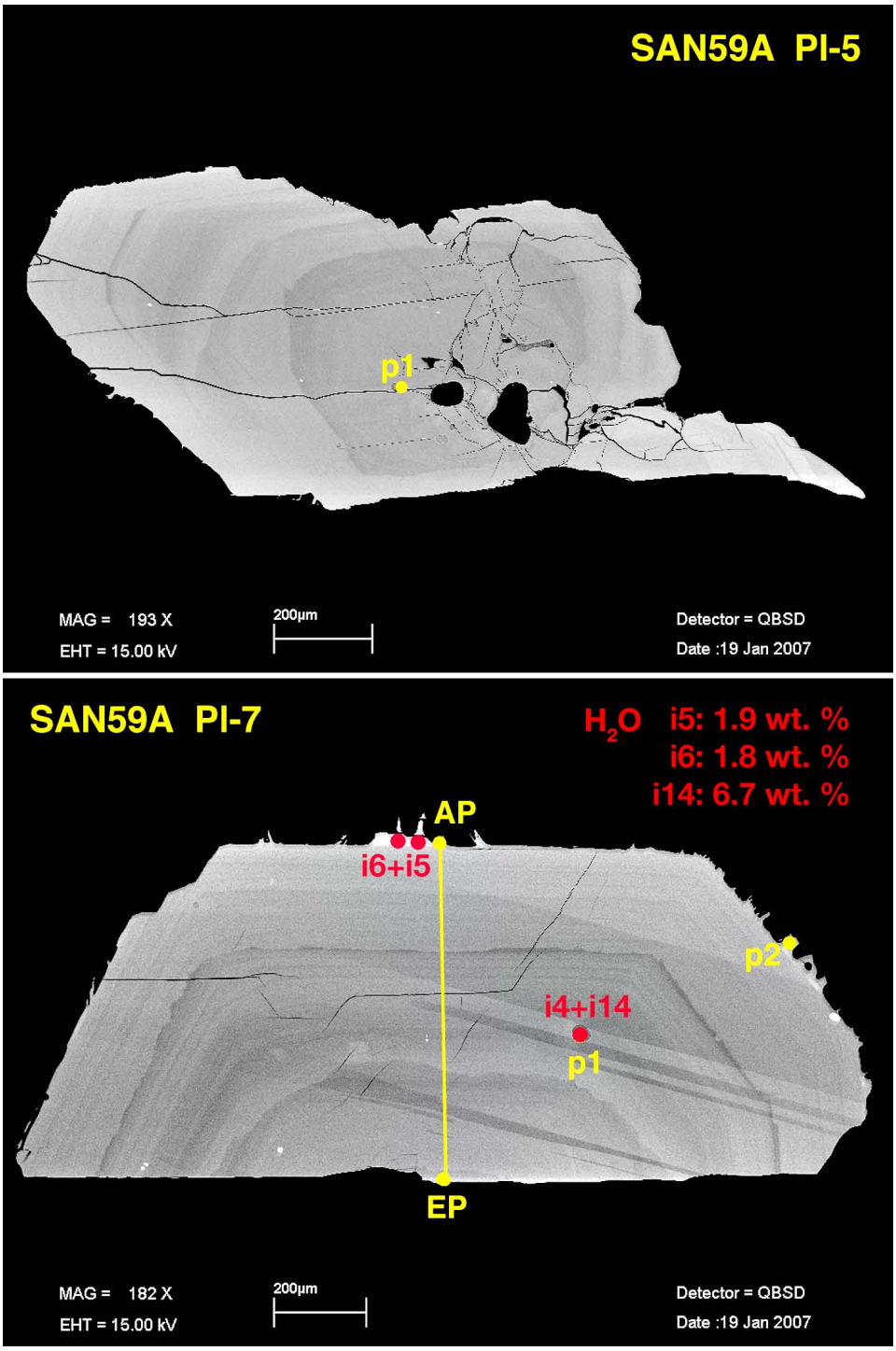


Fig. F.46. Minoan C – Pumice – SAN59A: Plagioclase crystals Pl-5 and Pl-7. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

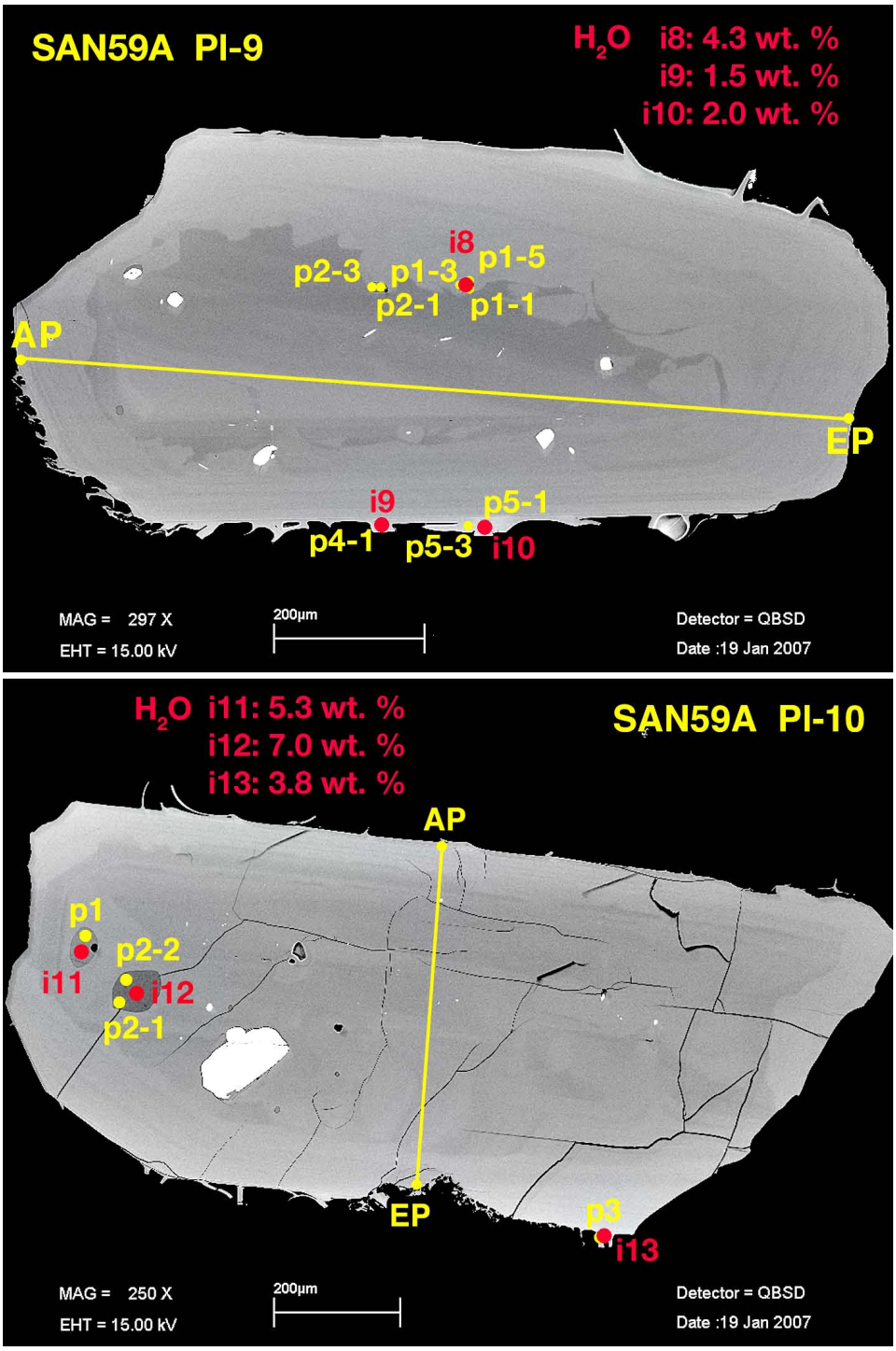


Fig. F.47. Minoan C – Pumice – SAN59A: Plagioclase crystals Pl-9 and Pl-10. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

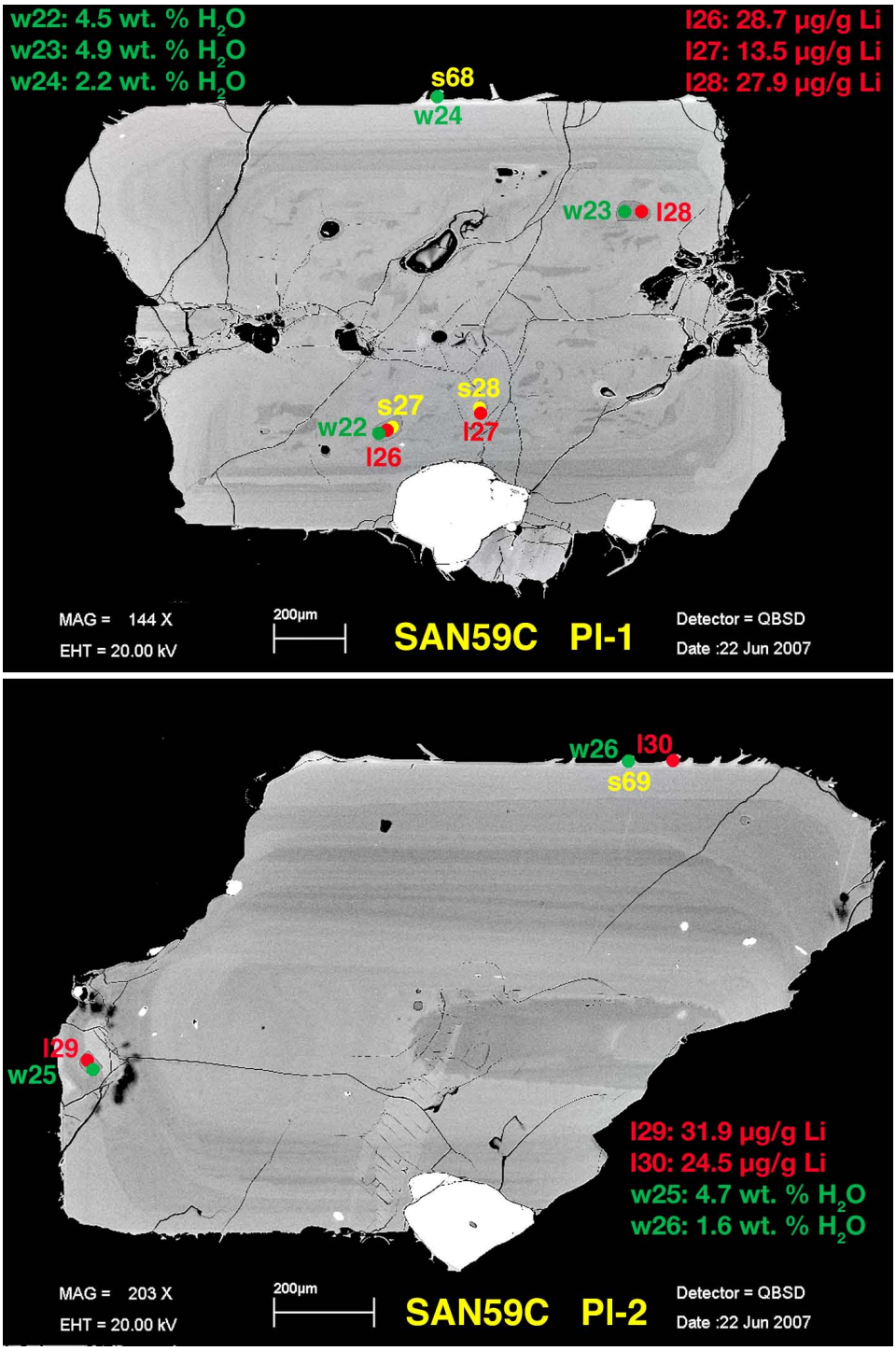


Fig. F.48. Minoan C – Pumice – SAN59C: Plagioclase crystals Pl-1 and Pl-2. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

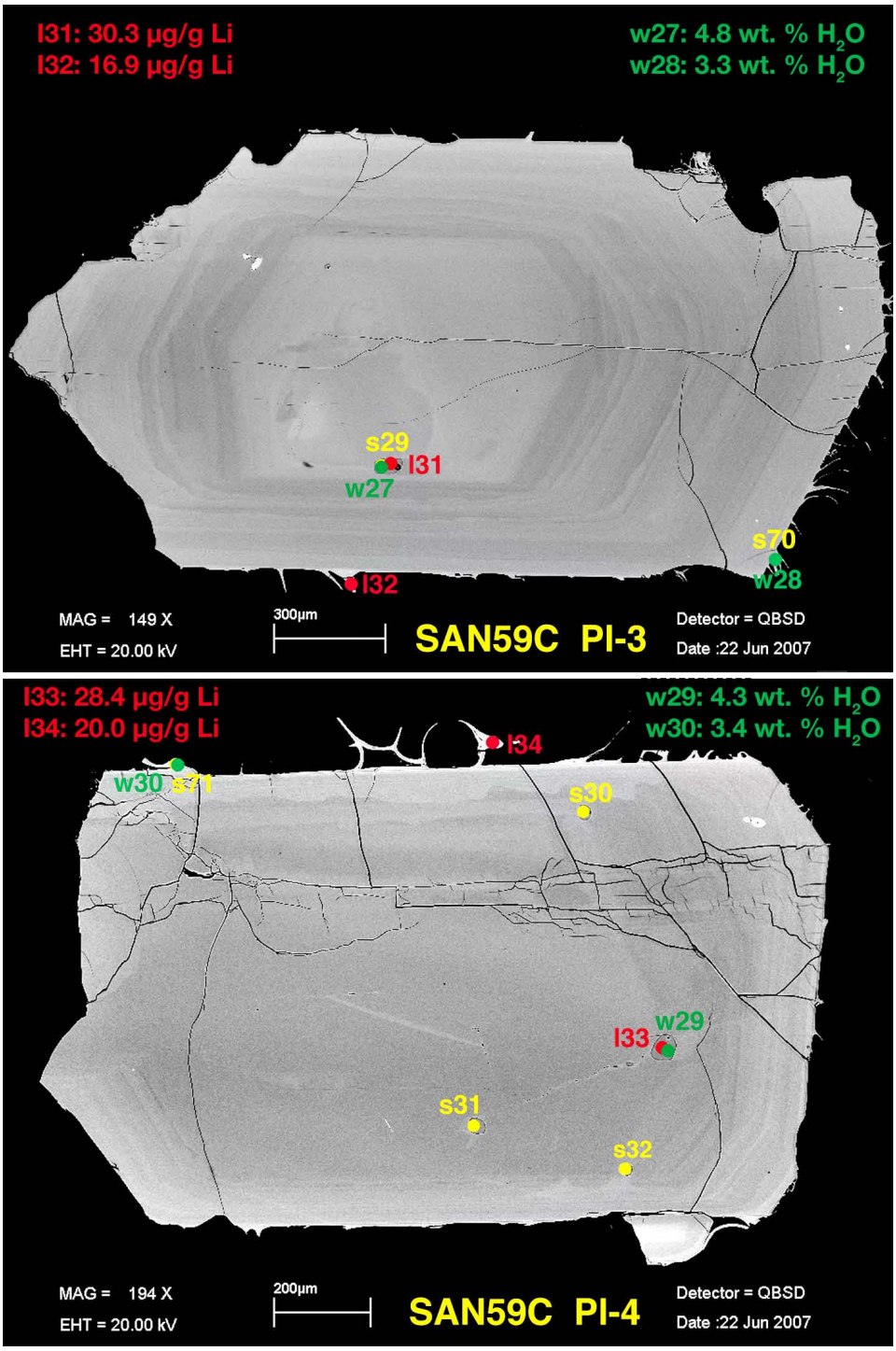


Fig. F.49. Minoan C – Pumice – SAN59C: Plagioclase crystals Pl-3 and Pl-4. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

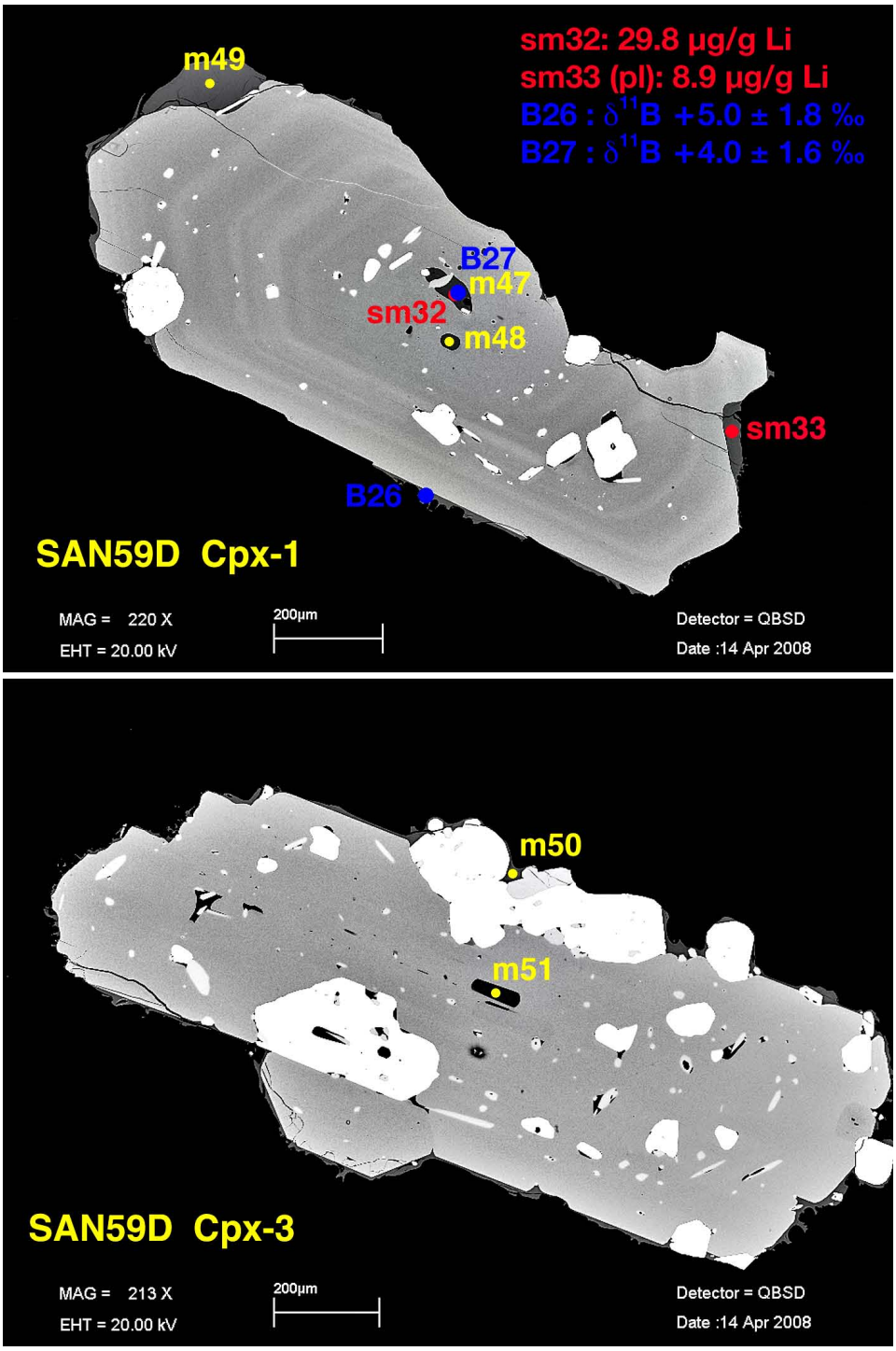


Fig. F.50. Minoan C – Pumice – SAN59D: Pyroxene crystals Cpx-1 and Cpx-3. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

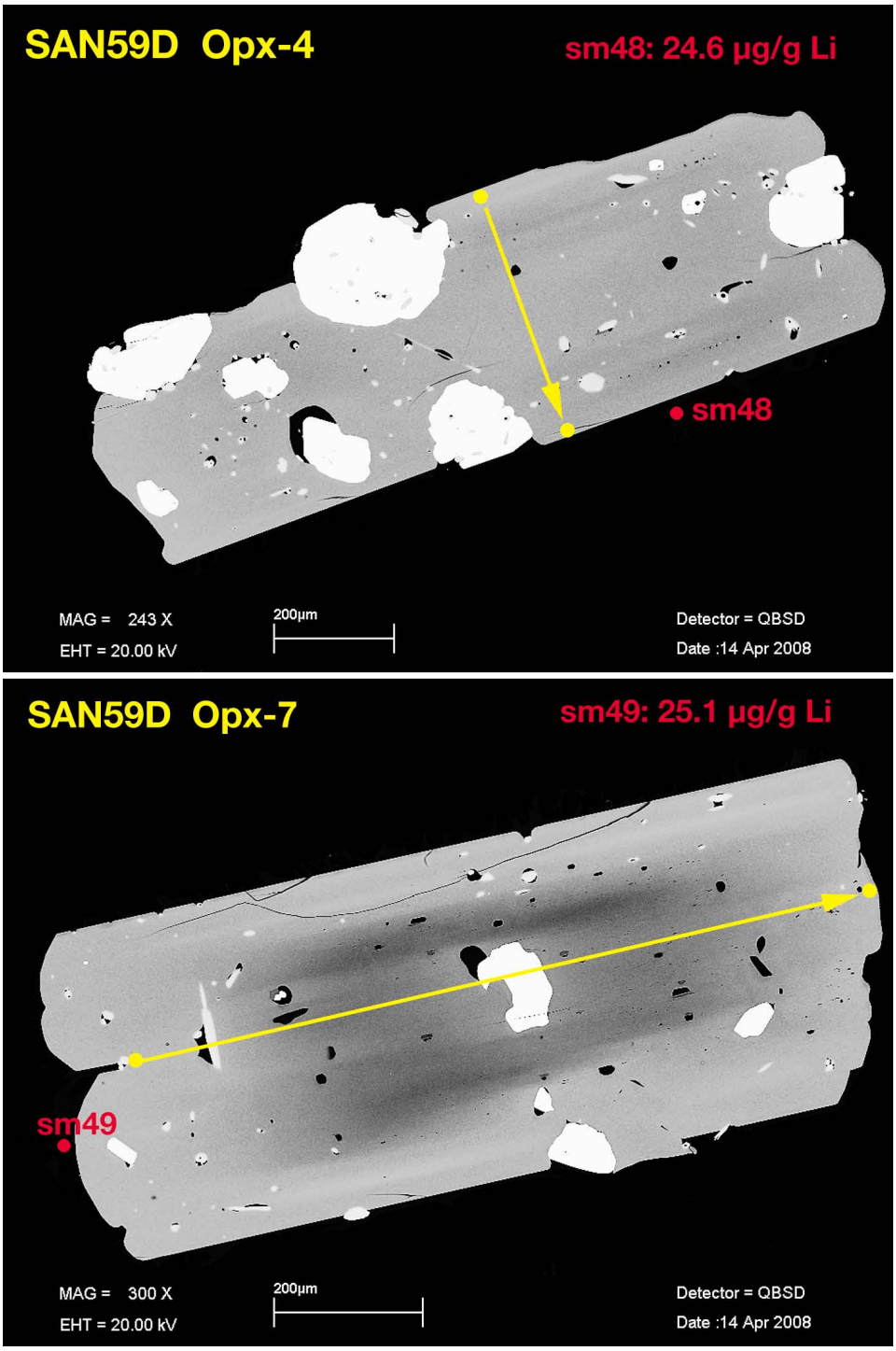


Fig. F.51. Minoan C – Pumice – SAN59D: Pyroxene crystals Opx-4 and Opx-7. Red and blue points mark locations of SIMS analyses.

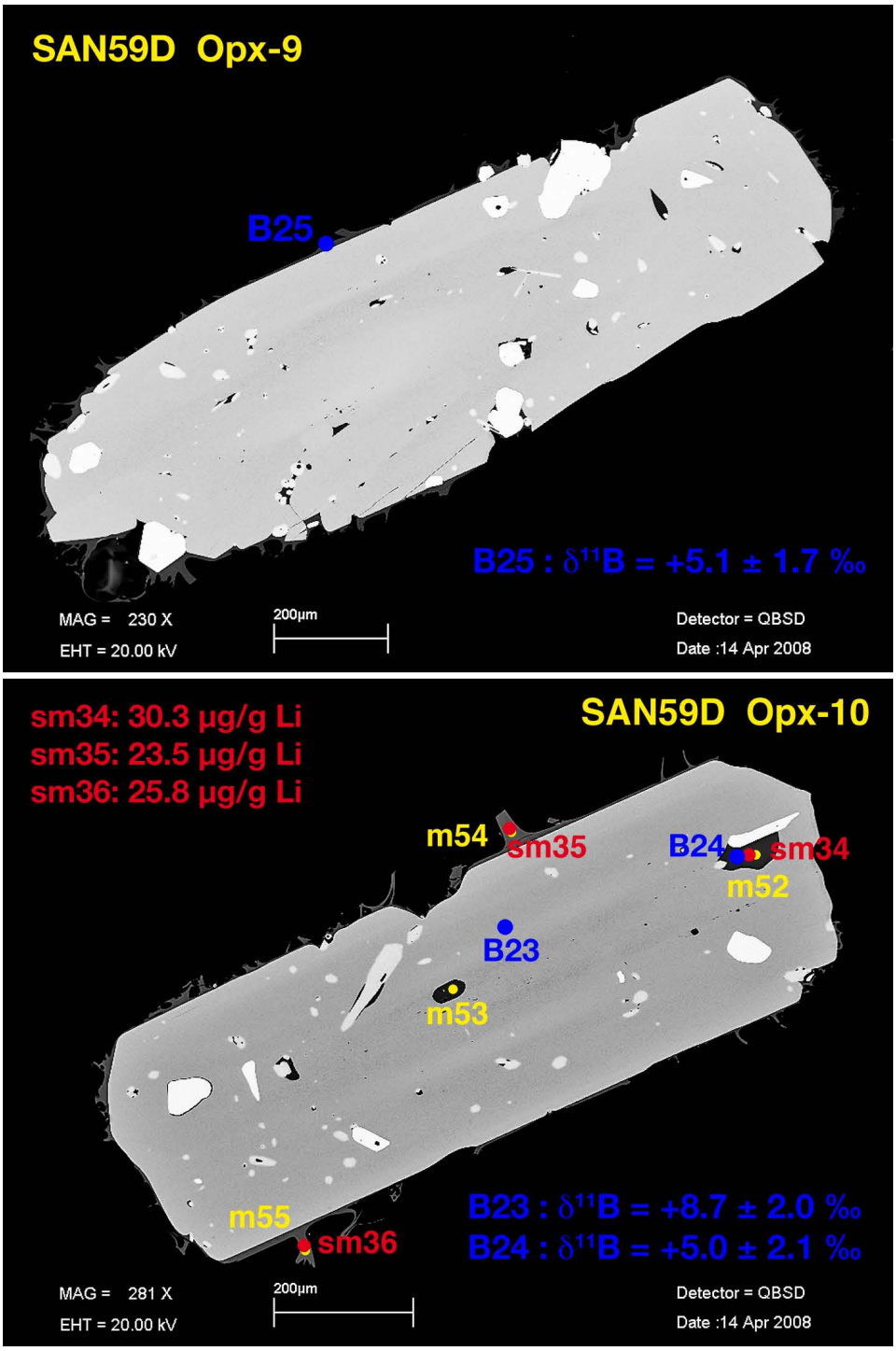


Fig. F.52. Minoan C – Pumice – SAN59D: Pyroxene crystals Opx-9 and Opx-10. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

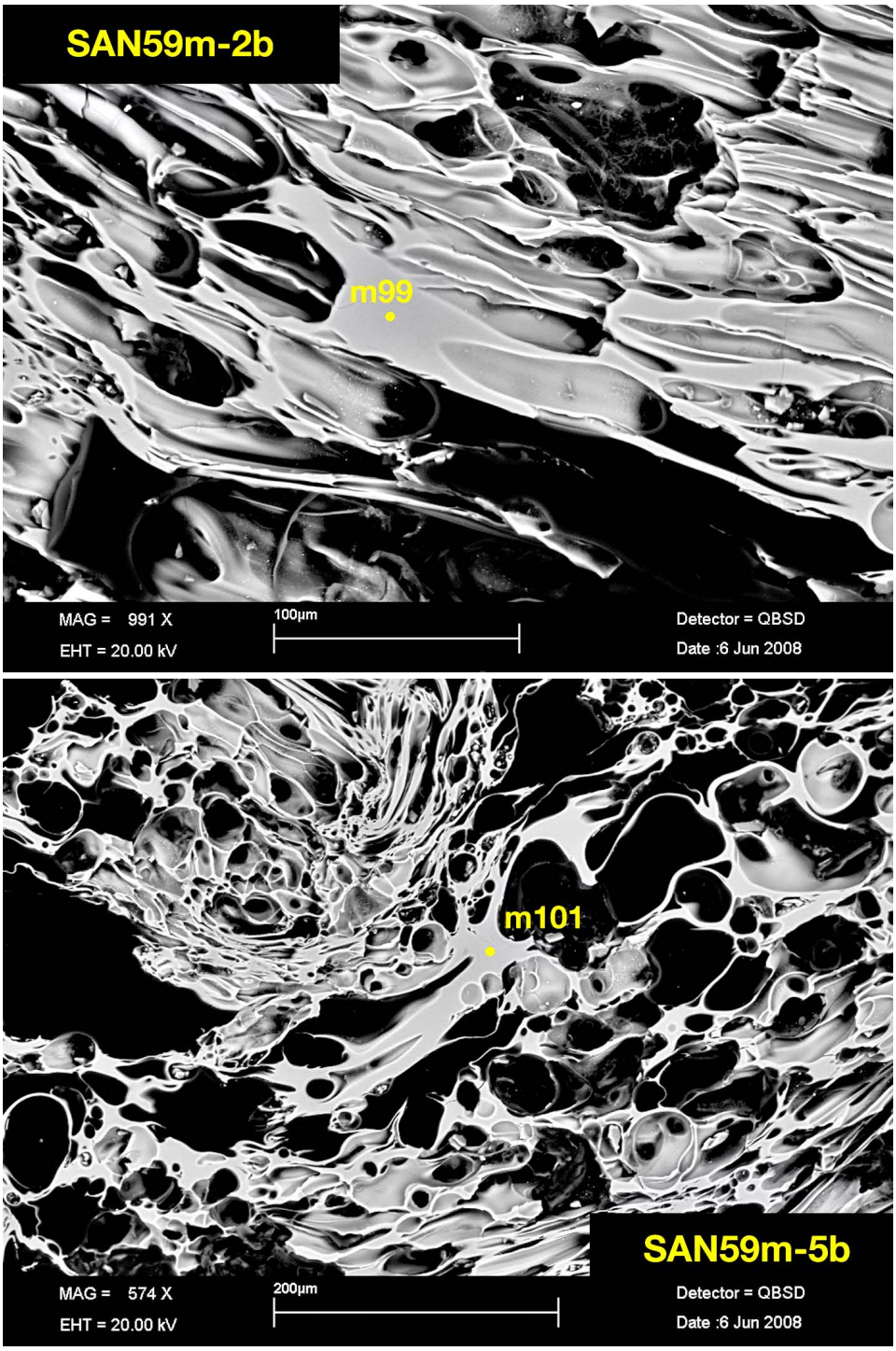


Fig. F.53. Minoan C – Pumice – SAN59m: Yellow points mark locations of EPMA analyses.

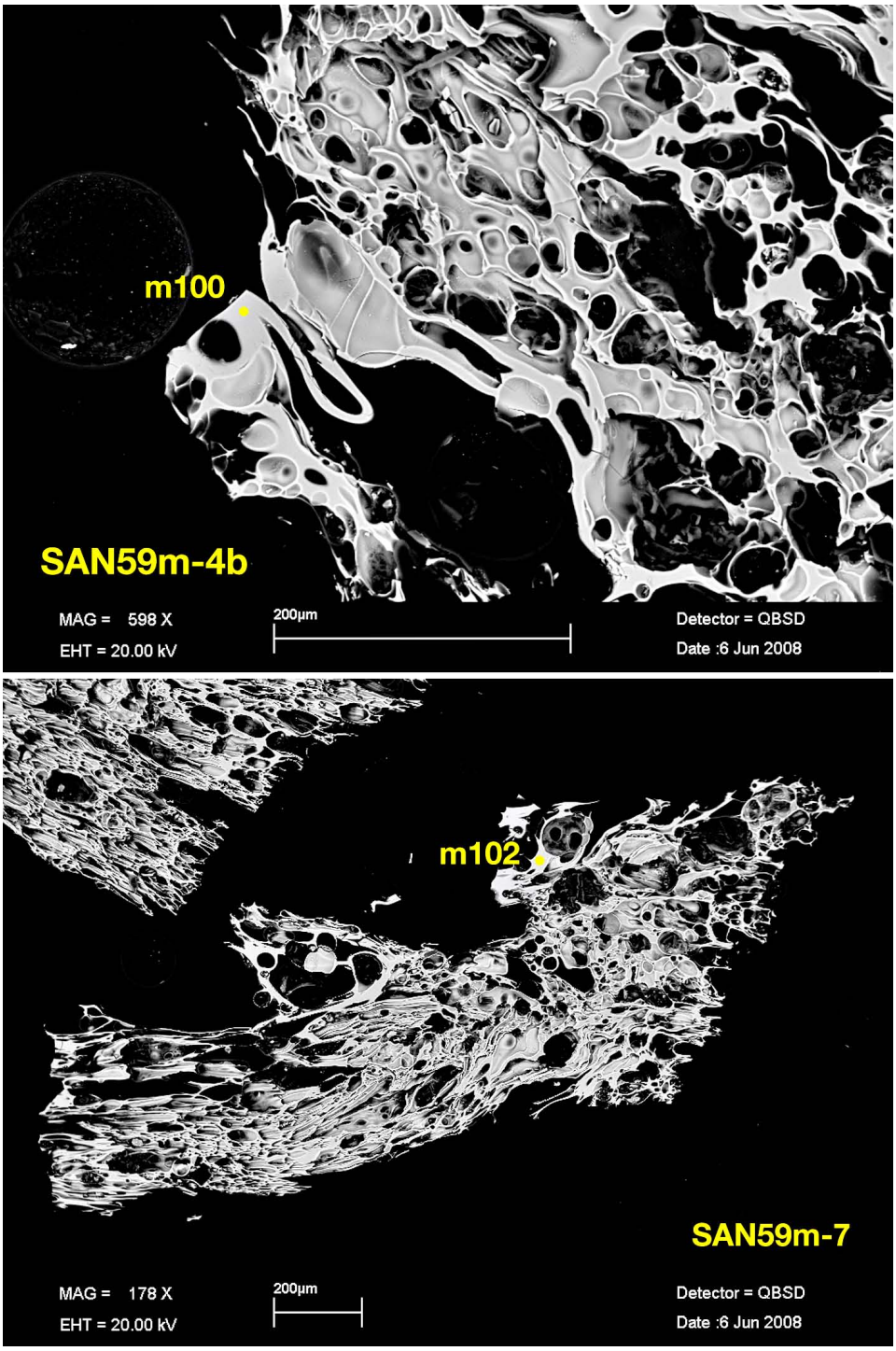


Fig. F.54. Minoan C – Pumice – SAN59m: Yellow points mark locations of EPMA analyses.

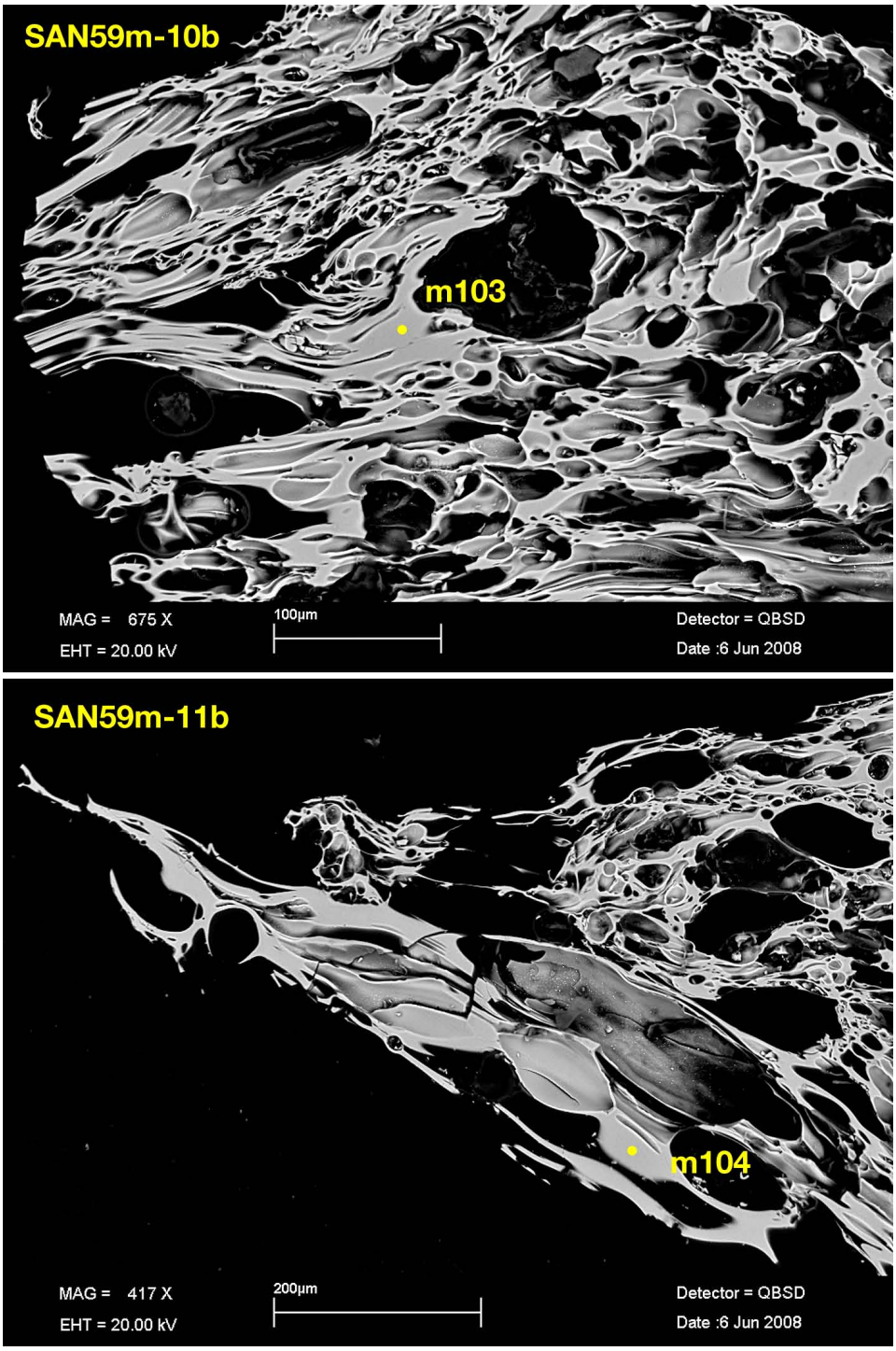


Fig. F.55. Minoan C – Pumice – SAN59m: Yellow points mark locations of EPMA analyses.

F.4. Minoan D: SAN50 and SAN51 Pl and Px

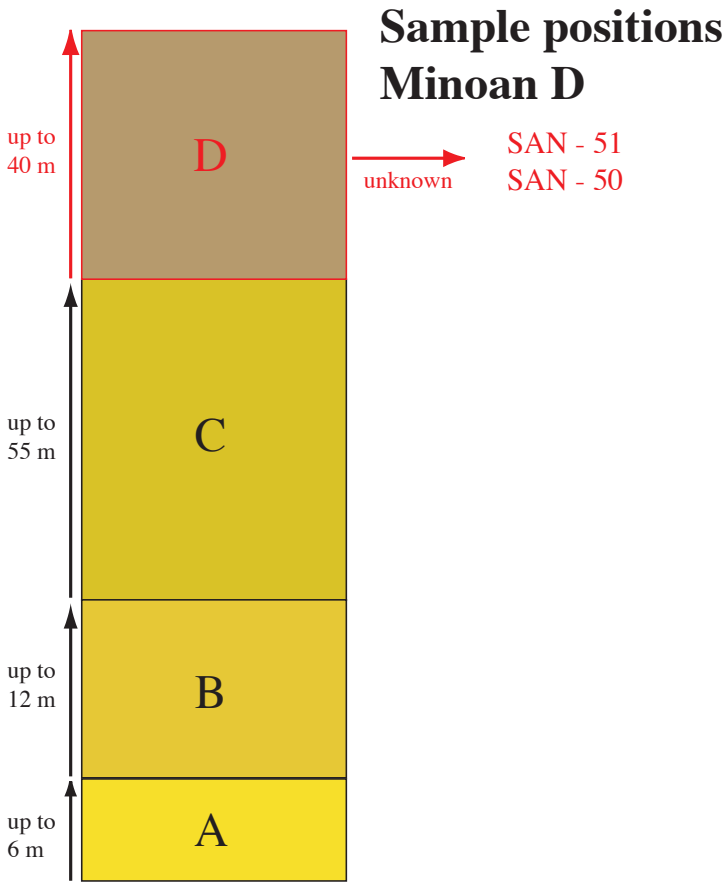


Fig. F.56. Minoan D – Pumice – SAN50A: Red points mark locations of SIMS analyses.

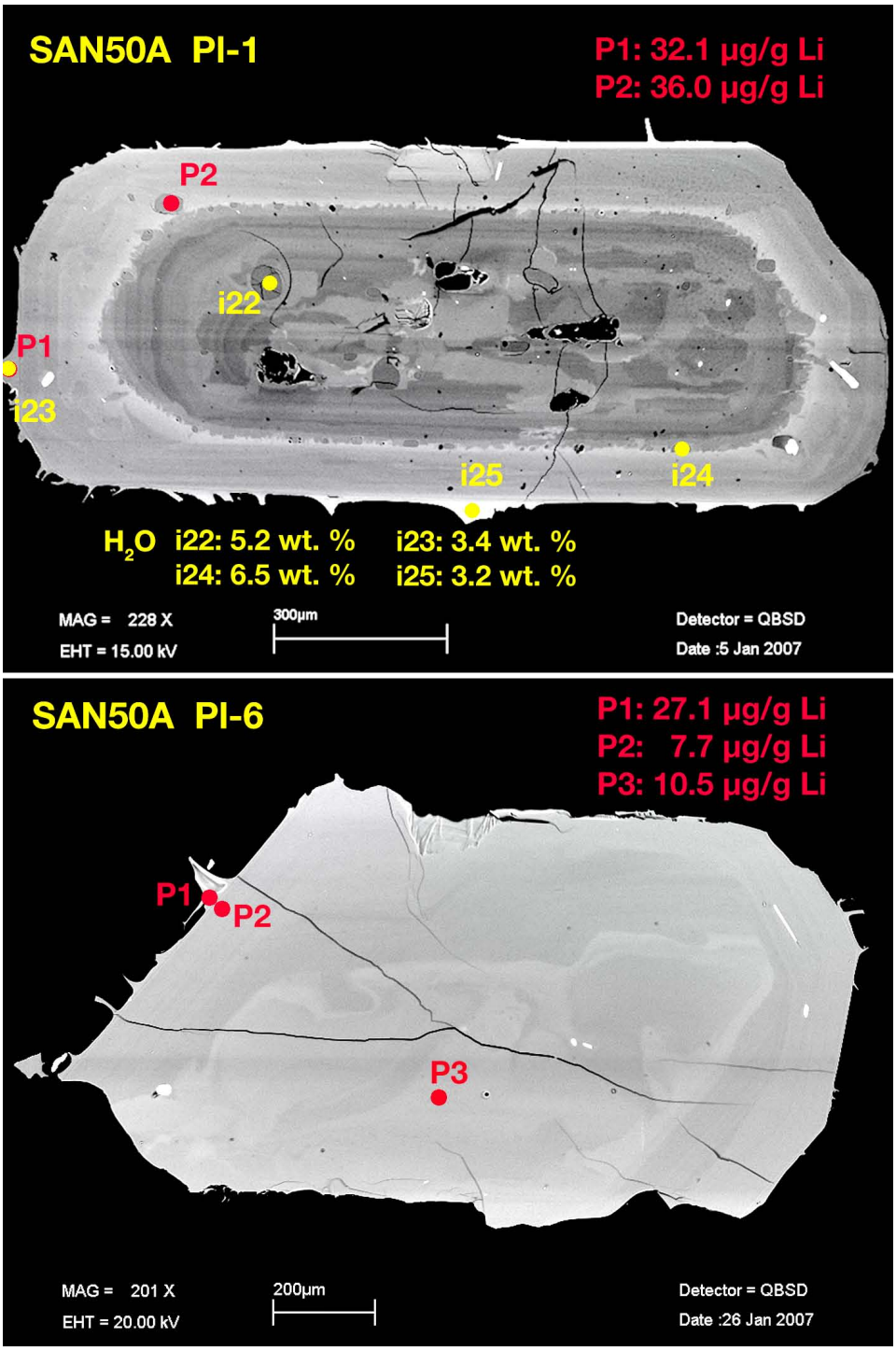


Fig. F.57. Red points mark locations of EPMA analyses; yellow points mark locations of SIMS analyses.

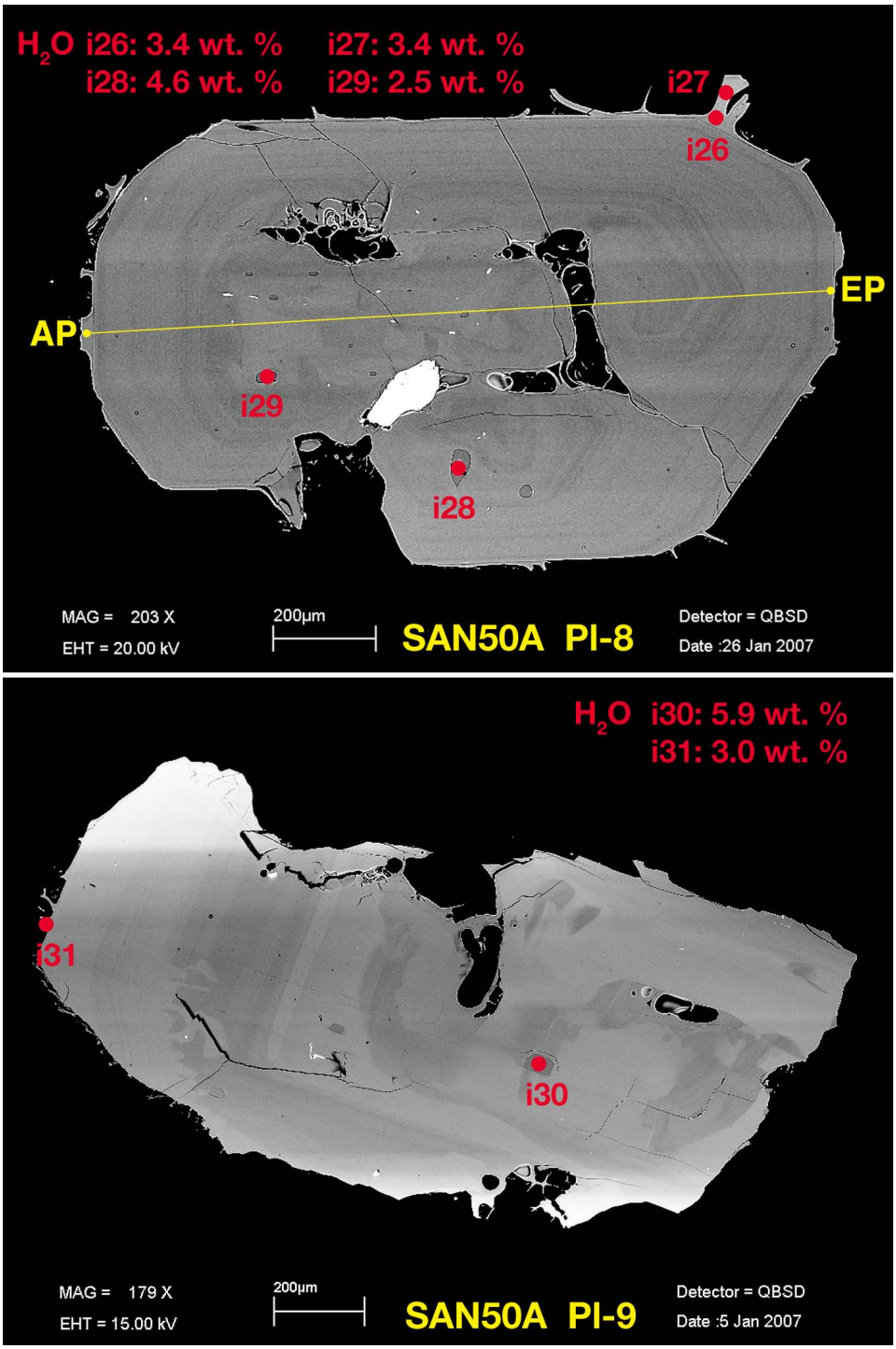


Fig. F.58. Red points mark locations of SIMS analyses.

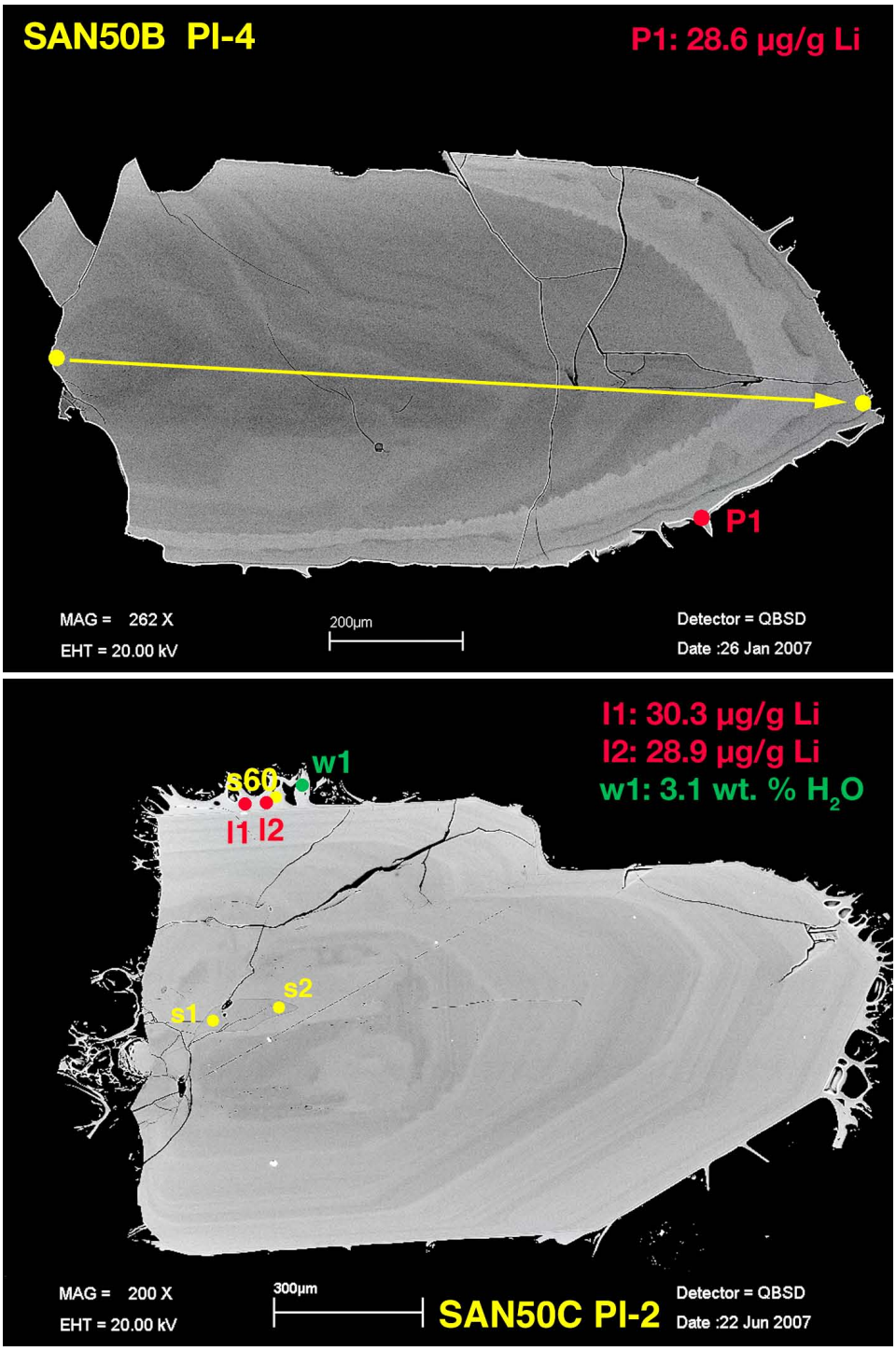


Fig. F.59. Minoan D – Pumice – SAN50B and SAN50C: Plagioclase crystals Pl-4 and Pl-2. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

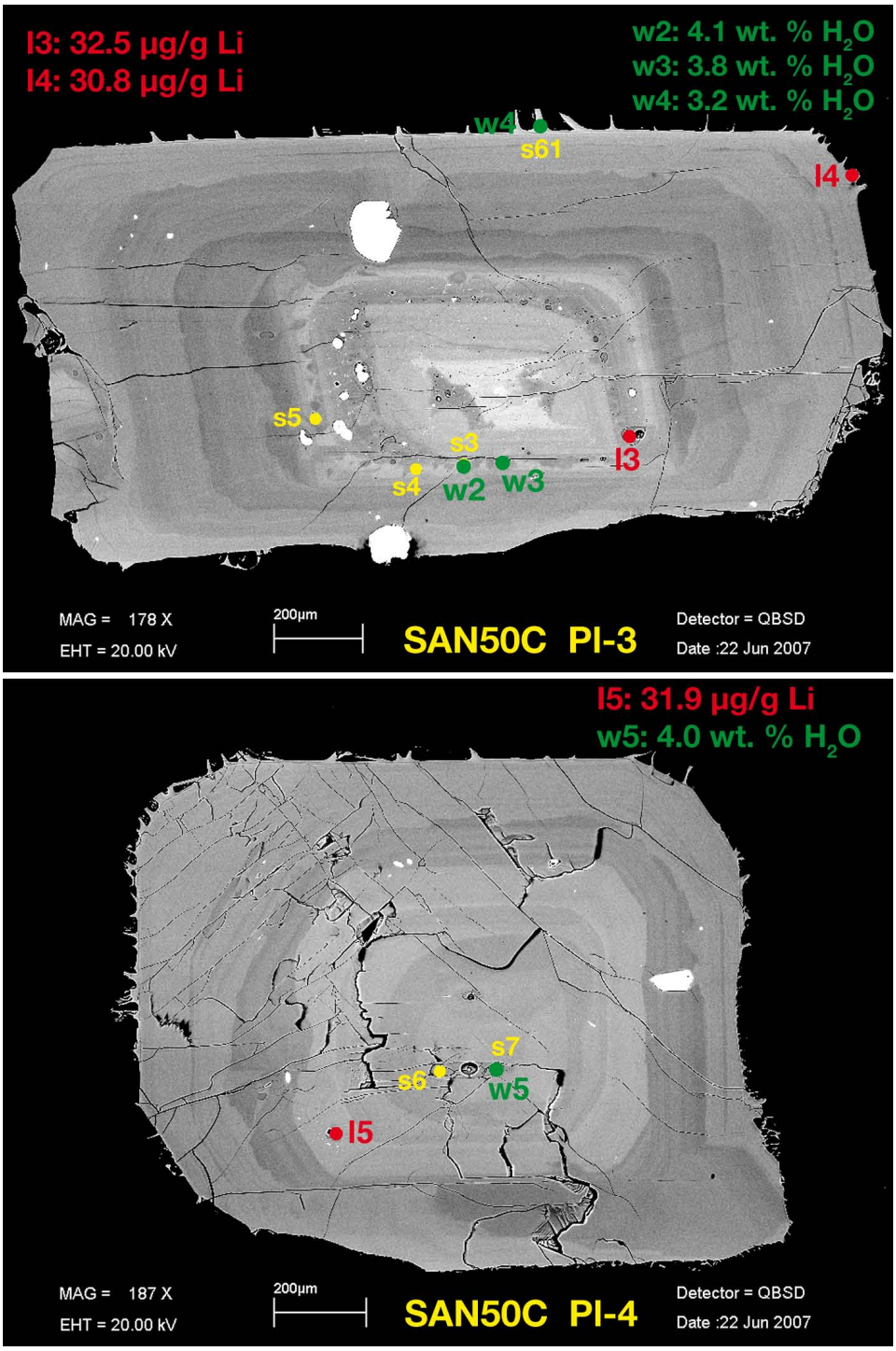


Fig. F.60. Minoan D – Pumice – SAN50C: Plagioclase crystals Pl-3 and Pl-4. Yellow points mark locations of EPMA analyses; red and green points mark locations of SIMS analyses.

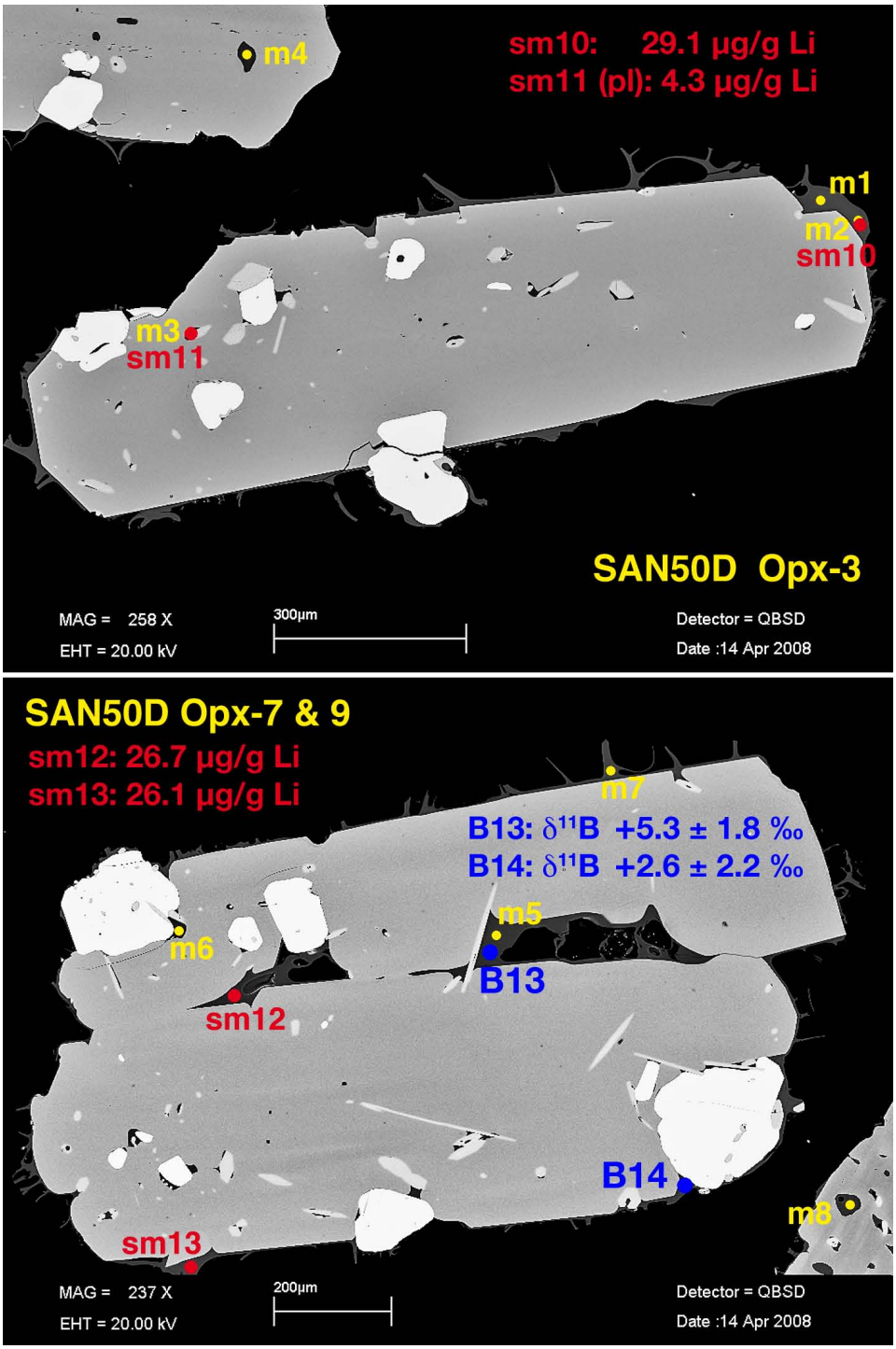


Fig. F.61. Minoan D – Pumice – SAN50D: Pyroxene crystals Opx-3, Opx-7 and Opx-9. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

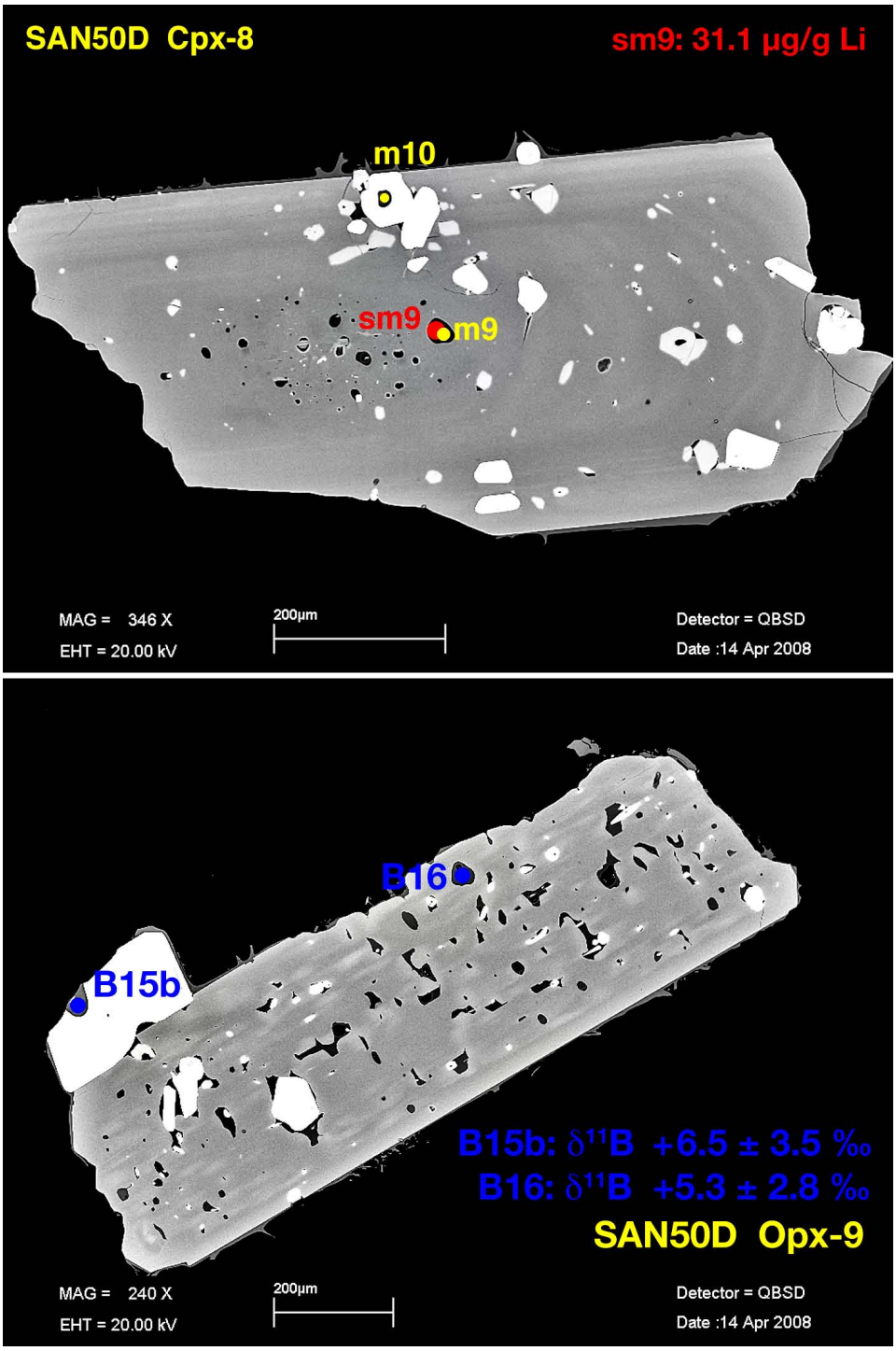


Fig. F.62. Minoan D – Pumice – SAN50D: Pyroxene crystals Cpx-8 and Opx-9. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

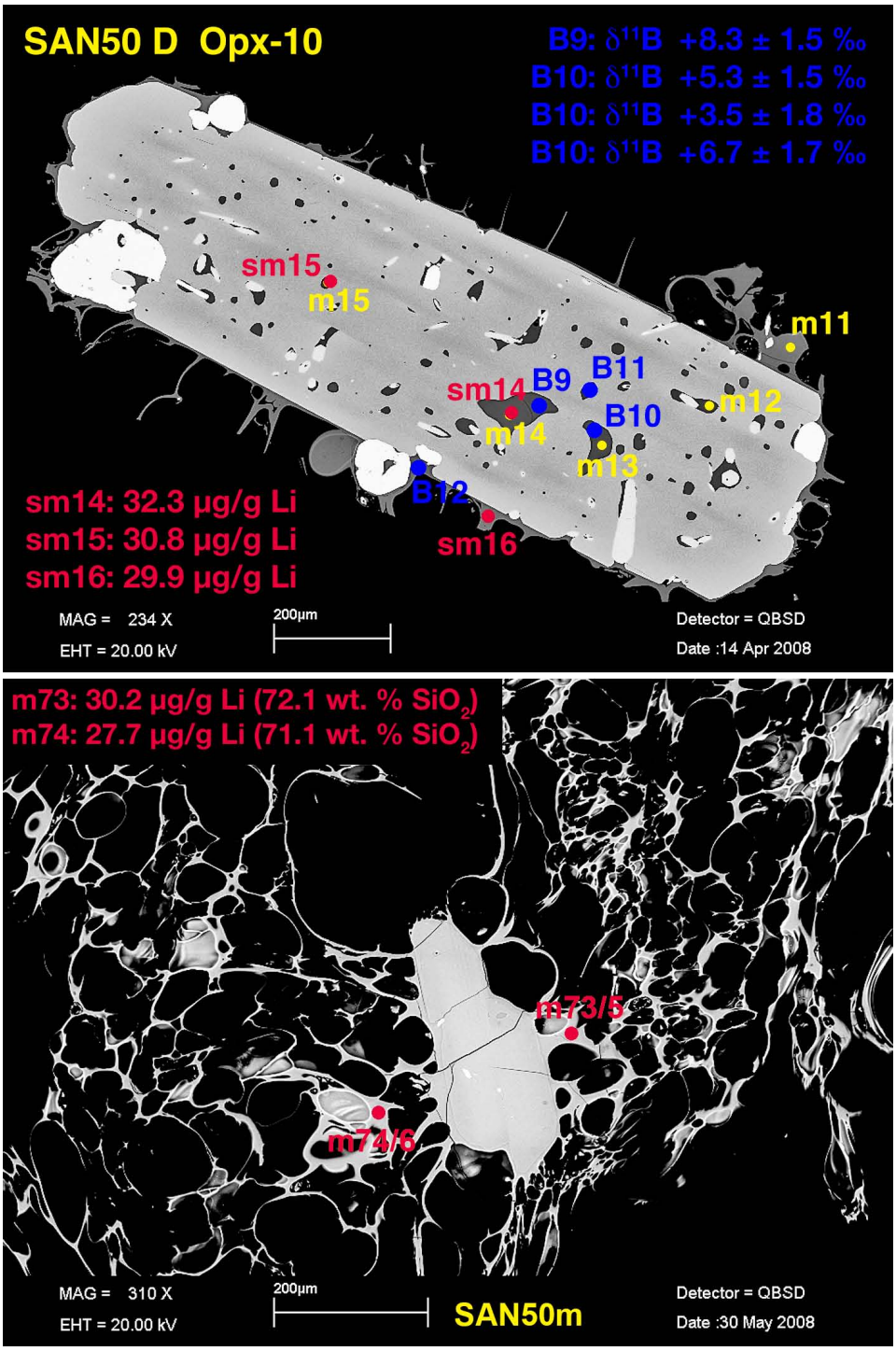


Fig. F.63. Minoan D – Pumice – SAN50D and SAN50m: Pyroxene crystal Opx-10. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

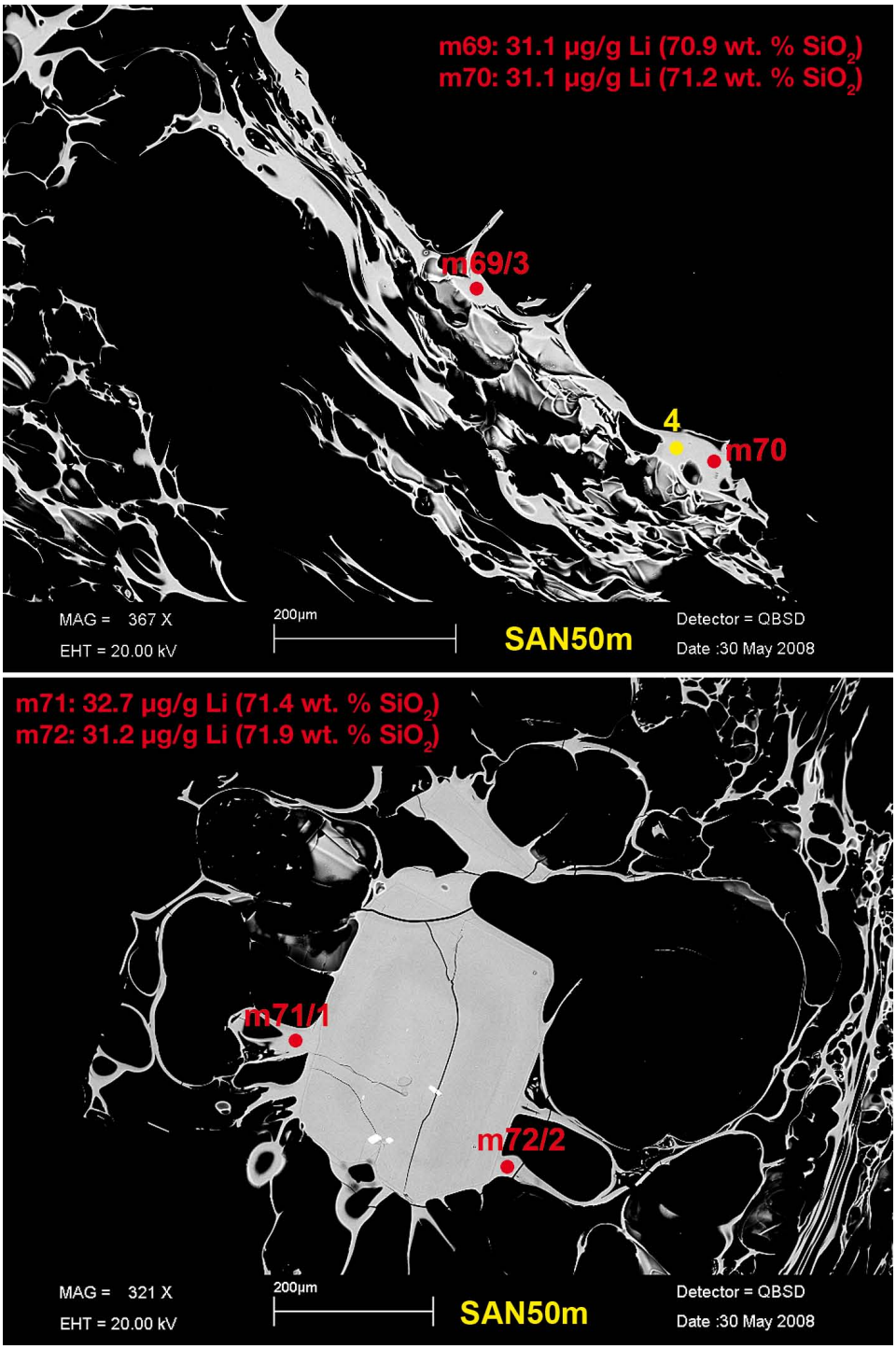


Fig. F.64. Minoan D – Pumice – SAN50m: Yellow points mark locations of EPMA analyses.

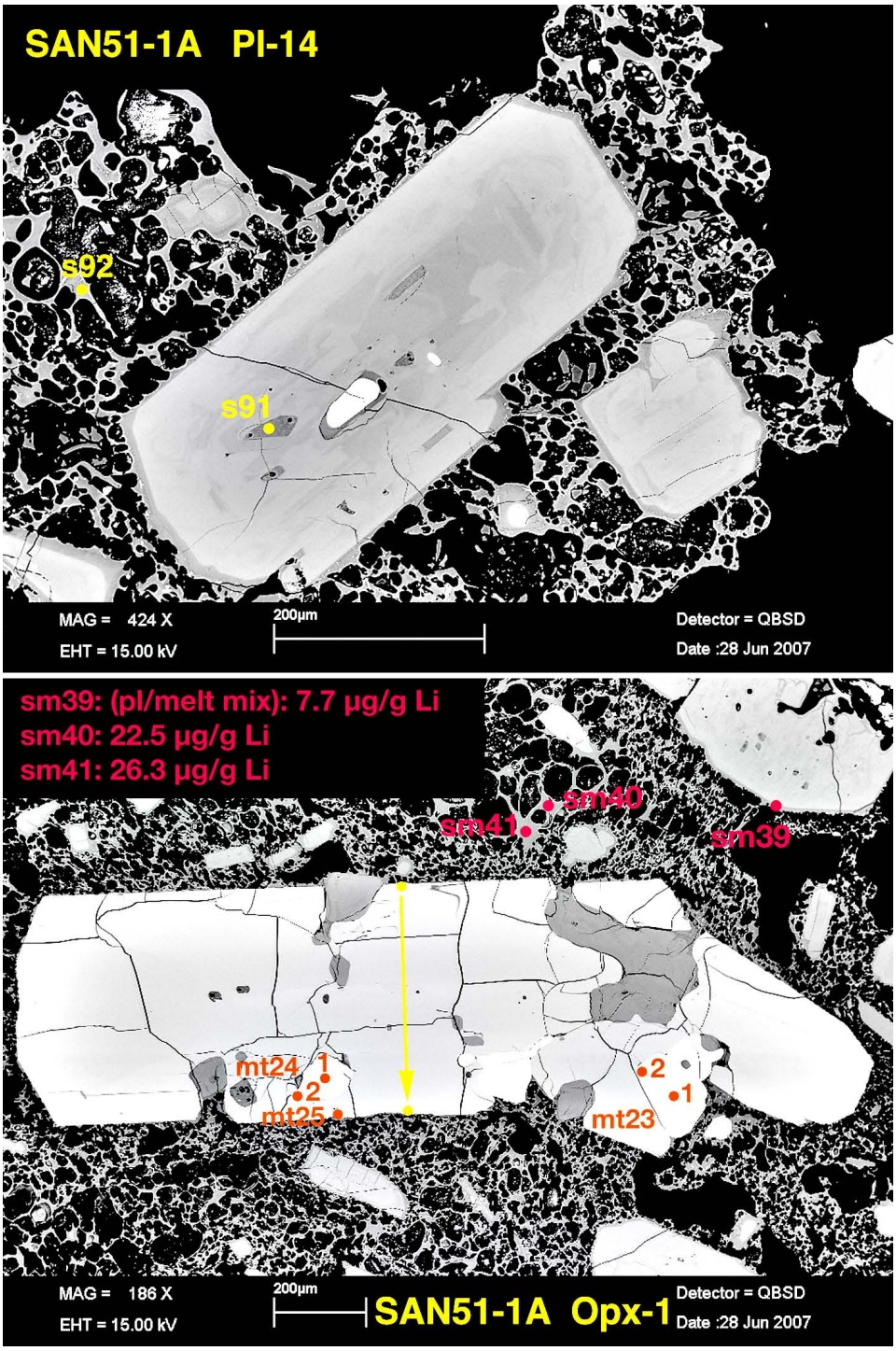


Fig. F.65. Minoan D – Pumice – SAN51-1A: Plagioclase and pyroxene crystals Pl-14 and Opx-1. Yellow and orange points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

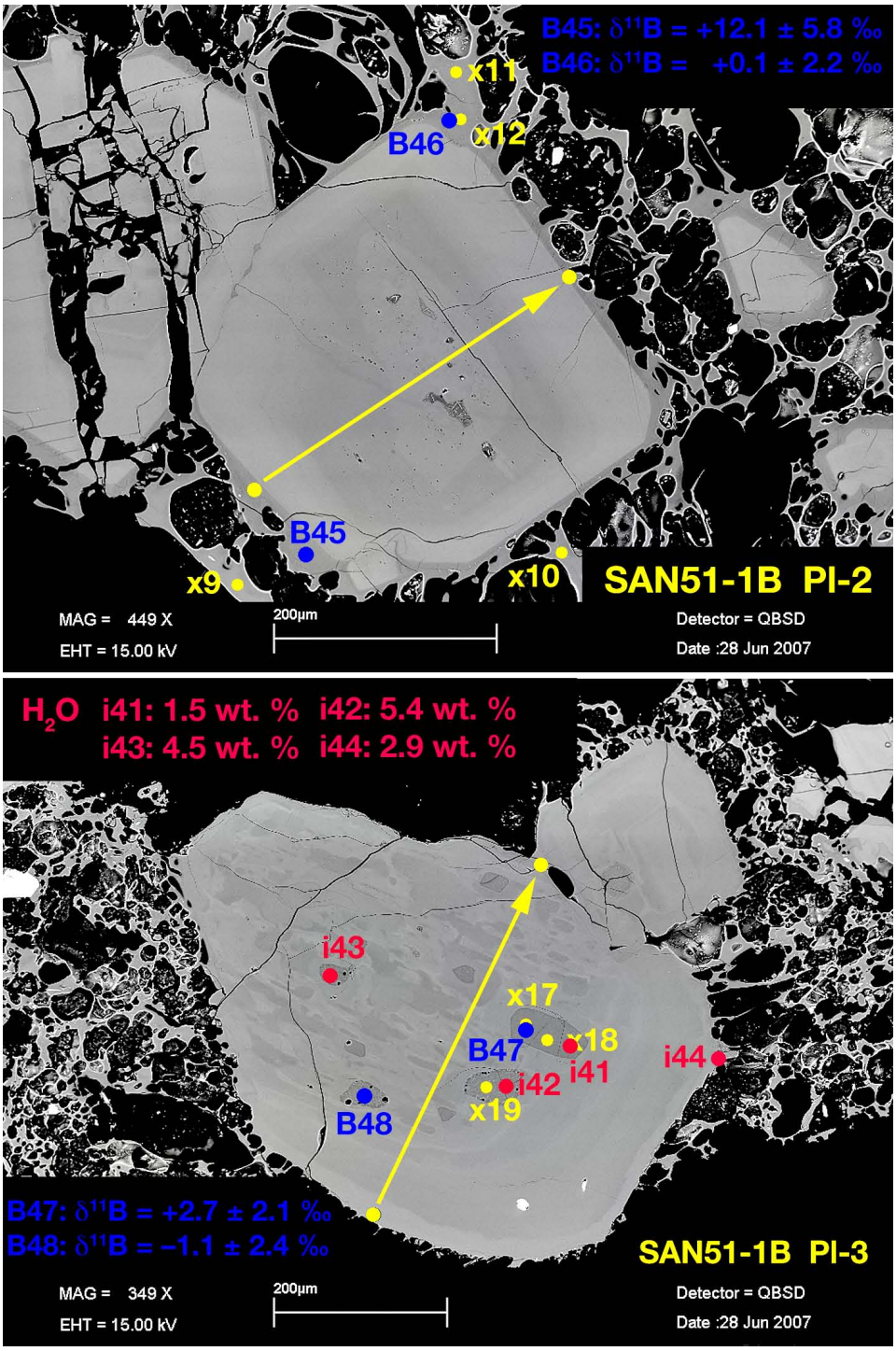


Fig. F.66. Minoan D – Pumice – SAN51-1B: Plagioclase crystals Pl-2 and Pl-3. Yellow points mark locations of EPMA analyses; blue and red points mark locations of SIMS analyses.

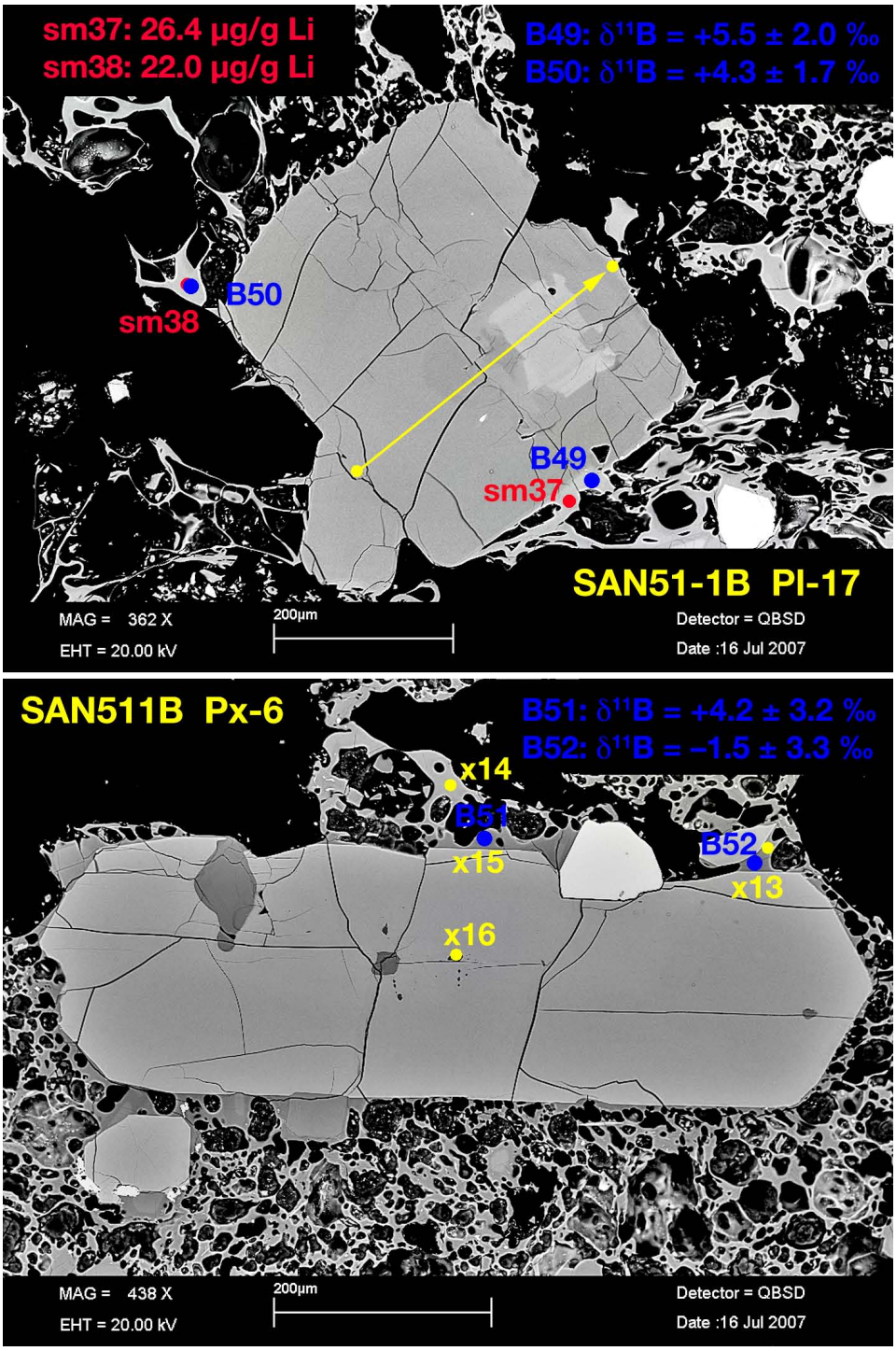


Fig. F.67. Minoan D – Pumice – SAN51-1B: Plagioclase and pyroxene crystals Pl-17 and Px-6. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

F.5. EPMA and SIMS Analyses

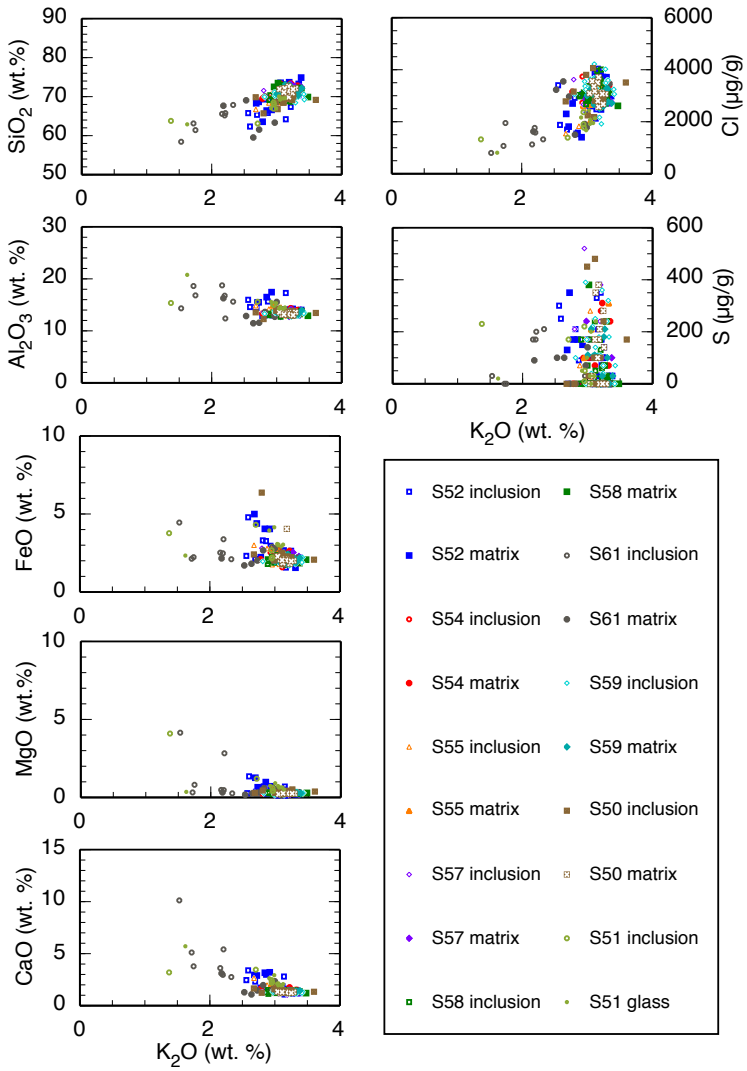


Fig. F.68. EPMA analyses of glass inclusions and matrix glass.

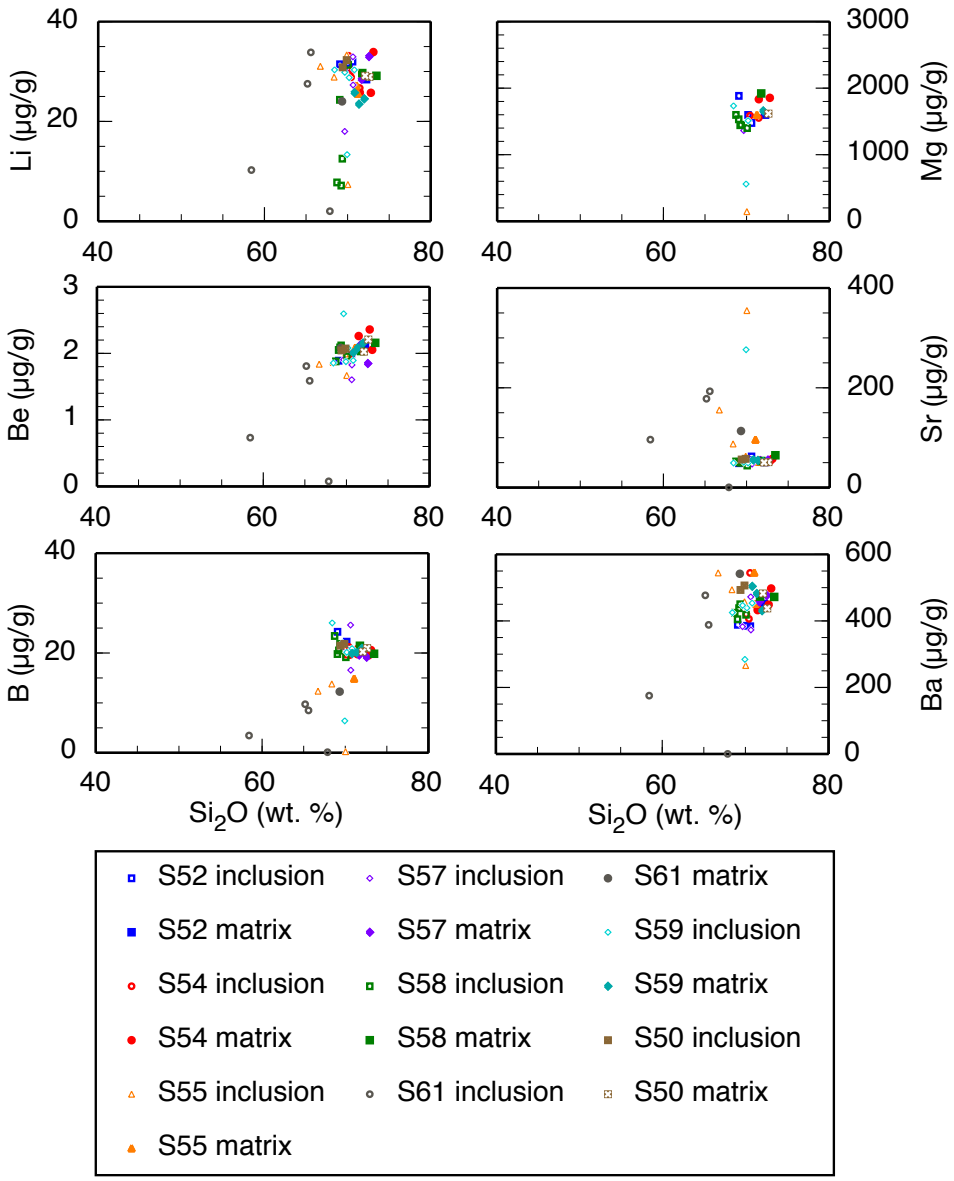


Fig. F.69. EPMA and SIMS analyses of glass inclusions and matrix glass.

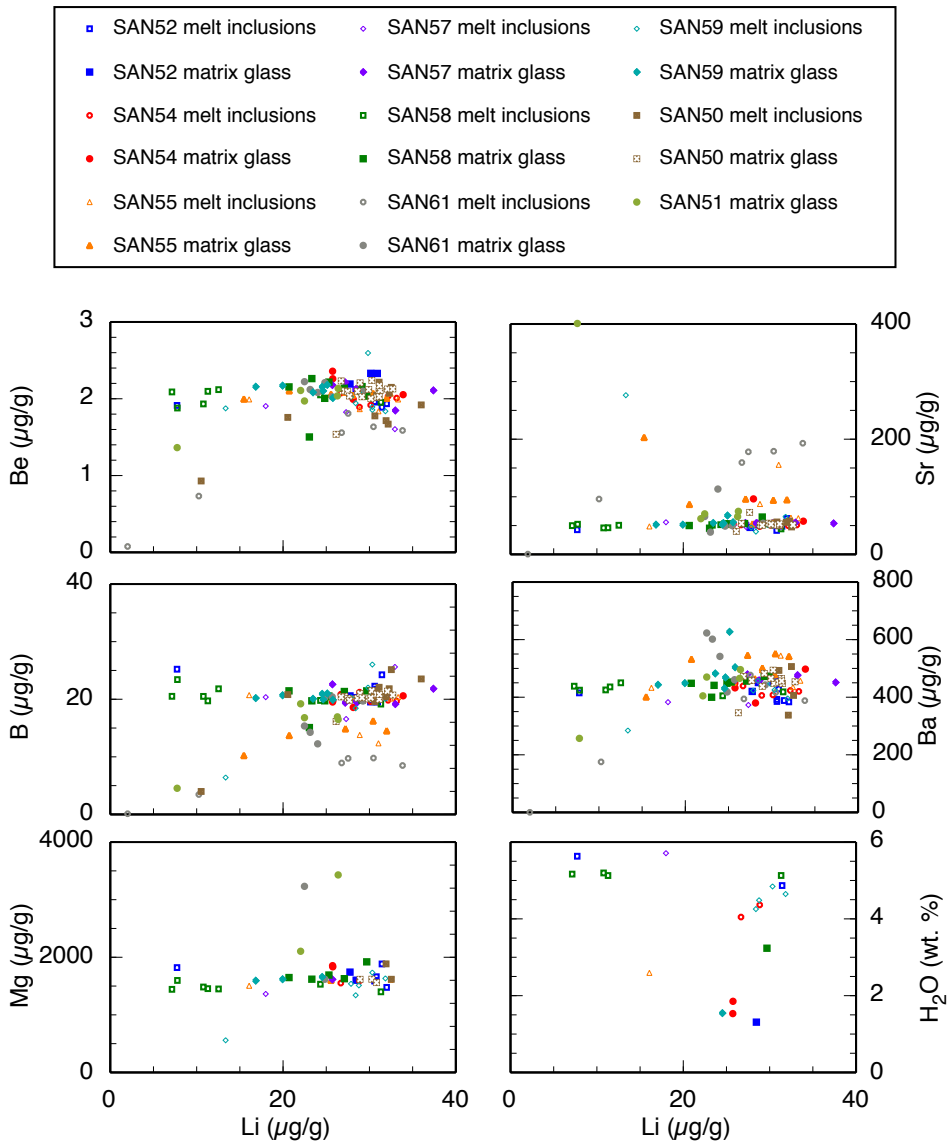


Fig. F.70. SIMS analyses of glass inclusions and matrix glass.

Table F.1. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Sample	**S52A-Pl10 s41**	**S52A-Pl5-s42**	**S52A-Pl5-s43**	**S52A-Pl5-s44**	**S52A-Pl1-s45**	**S52B-Px9-s47**	**S52B-Px11-s48**	**S52B-Px11-s49**	**S52B-Px1-s52**	**S52B-Px6-s55**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	70.34	70.79	69.66	70.66	70.41	65.35	70.89	70.99	70.33	73.18
TiO_2	0.30	0.32	0.33	0.28	0.28	0.21	0.33	0.35	0.21	0.30
Al_2O_3	13.32	13.45	13.42	13.64	13.29	15.49	13.56	13.43	14.26	13.42
FeO	1.89	2.15	2.20	2.21	1.57	2.10	2.02	2.07	2.64	1.86
MnO	0.07	0.10	0.05	0.10	0.07	0.02	0.13	0.05	0.10	0.10
MgO	0.28	0.28	0.30	0.32	0.23	0.37	0.19	0.21	0.22	0.12
CaO	1.26	1.30	1.40	1.39	1.23	2.32	1.33	1.35	1.44	1.07
Na_2O	2.20	3.69	3.49	3.55	3.71	2.56	2.47	3.75	3.87	4.09
K_2O	3.34	3.00	3.18	3.12	3.17	2.70	3.00	3.14	3.25	3.15
P_2O_5	0.02	0.12	0.06	0.03	0.02	0.13	0.04	ND	0.04	0.09
Total	93.02	95.18	94.09	95.29	93.97	91.25	93.95	95.33	96.36	97.37
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3076	2448	3949	3851	3182	1697	2717	3761	3541	2480
S (μg/g)	0	170	0	210	0	0	100	30	100	0
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.2. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Sample	**S52agg1-Pl1-x20**	**S52agg1-Px1-x21**	**S52agg2-Px2-x26**	**S52agg2-Px-x27**	**S52C-Pl1-s8**	**S52C-Pl1-s9**	**S52C-Pl1-s10**	**S52C-Pl1-s11**	**S52C-Pl2-s12**	**S52C-Pl2-s13**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	62.34	64.20	65.83	65.78	69.79	67.39	69.08	70.60	69.56	68.95
TiO_2	0.73	0.54	0.51	0.37	0.28	0.66	0.32	0.29	0.29	0.29
Al_2O_3	14.59	17.28	15.65	15.97	13.29	12.88	13.18	13.12	13.46	13.35
FeO	4.79	2.67	3.26	2.31	2.03	2.41	2.31	1.94	1.95	2.10
MnO	0.15	0.10	0.05	0.08	0.10	0.19	0.09	ND	0.08	0.13
MgO	1.35	0.70	0.25	0.27	0.28	0.37	0.34	0.32	0.27	0.29
CaO	3.39	2.80	2.97	2.46	1.28	1.28	1.28	1.17	1.32	1.36
Na_2O	3.21	3.73	4.01	3.73	4.15	4.26	4.33	4.24	4.51	4.28
K_2O	2.59	3.14	2.86	2.56	3.26	3.22	3.17	3.28	3.16	3.20
P_2O_5	0.20	0.24	0.20	0.17	ND	0.06	0.02	0.06	0.03	0.09
Total	93.32	95.39	95.61	93.69	94.46	92.70	94.10	95.00	94.62	94.04
F (μg/g)	1098	858	521	528	NA	NA	NA	NA	NA	NA
Cl (μg/g)	1877	2121	1583	3402	3729	3753	4039	3321	3631	3174
S (μg/g)	250	330	90	300	140	170	ND	ND	210	350
Li (μg/g)	NA	NA	NA	NA	NA	NA	31.4	32.0	NA	NA
2σ	NA	NA	NA	NA	NA	NA	0.5	1.0	NA	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	1.89	1.94	NA	NA
2σ	NA	NA	NA	NA	NA	NA	0.05	0.07	NA	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	24.2	20.4	NA	NA
2σ	NA	NA	NA	NA	NA	NA	0.5	0.3	NA	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	48.9	62.3	NA	NA
2σ	NA	NA	NA	NA	NA	NA	1.8	1.5	NA	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	388	384	NA	NA
2σ	NA	NA	NA	NA	NA	NA	8	10	NA	NA
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	4.9	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.3. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Sample	**S52C-Pl2-s14**	**S52C-Pl2-s15**	**S52D-Px1-m16**	**S52D-Px9-m20**	**S52D-Px9-m21**	**S52B-Px11-s50**	**S52B-Px1-s54**	**S52B-Px6-s56**	**S52A-Pl1-s58**	**S52A-Pl-3s59**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**
SiO_2	69.58	70.17	70.10	69.28	69.30	72.54	73.55	74.89	72.91	71.62
TiO_2	0.31	0.27	0.26	0.31	0.42	0.31	0.28	0.23	0.34	0.29
Al_2O_3	13.38	13.53	13.70	12.94	12.98	14.07	14.07	14.01	13.74	13.89
FeO	1.73	2.11	2.26	3.31	2.96	2.13	2.15	2.19	1.95	2.02
MnO	0.06	0.03	0.10	0.23	0.06	0.01	0.07	0.01	0.08	0.03
MgO	0.25	0.29	0.12	0.71	0.40	0.25	0.27	0.22	0.31	0.25
CaO	1.35	1.45	1.42	1.36	1.40	1.38	1.35	1.22	1.34	1.31
Na_2O	4.35	4.39	4.55	4.25	4.26	4.37	4.59	4.53	4.28	4.63
K_2O	3.18	3.18	3.03	2.81	2.93	3.18	3.06	3.38	3.09	3.30
P_2O_5	ND	0.03	ND	0.02	0.04	0.06	0.04	ND	0.12	ND
Total	94.19	95.44	95.54	95.21	94.75	98.30	99.42	100.67	98.15	97.33
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2709	2962	2782	2921	3060	3231	2603	2986	2913	3712
S (μg/g)	380	30	ND	210	ND	ND	100	30	ND	30
Li (μg/g)	NA	30.6	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.38	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	1.96	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.11	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	22.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	54.9	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	385	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	7	NA	NA	NA	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	NA	+8.3	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	3.4	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.4. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Sample	**S52C-Pl1-s62**	**S52C-Pl3-s63**	**S52D-Px3-m17**	**S52D-Px5-m18**	**S52D-Px9-m19**	**S52D-Px5-t1**	**S52m1-m75**	**S52m1-m76**	**S52m1-m77**	**S52m2-m78**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**
SiO_2	72.67	72.22	71.88	73.25	72.64	73.69	71.38	70.09	63.56	72.19
TiO_2	0.27	0.26	0.39	0.25	0.36	0.19	0.27	0.42	0.38	0.23
Al_2O_3	13.42	14.17	13.66	13.76	13.66	13.52	13.41	13.95	12.92	13.00
FeO	2.24	2.21	2.39	2.02	2.26	2.17	2.22	2.53	2.23	1.56
MnO	0.02	0.14	0.11	0.08	0.09	0.06	0.08	ND	0.04	0.06
MgO	0.30	0.30	0.31	0.21	0.30	0.22	0.29	0.50	0.34	0.21
CaO	1.29	1.44	1.55	1.22	1.46	1.27	1.60	1.83	1.70	1.24
Na_2O	4.36	4.54	5.13	5.04	4.80	4.98	4.51	4.76	4.44	4.62
K_2O	3.23	3.22	3.13	3.34	3.21	3.19	3.21	3.11	2.78	3.32
P_2O_5	0.03	0.07	ND	0.04	0.02	ND	0.09	0.04	0.01	ND
Total	97.82	98.56	98.54	99.21	98.79	99.28	97.06	97.22	88.40	96.42
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3076	2472	2962	2717	3867	3459	2733	2798	2701	2831
S (μg/g)	100	70	ND	ND	100	170	30	30	170	ND
Li (μg/g)	NA	28.5	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	2.11	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.09	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	20.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	51.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	451	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	7	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	2.1	1.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	0.1	0.1	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.5. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
Sample	**S52agg1-x23**	**S52agg1-x24**	**S52agg2-x25**	**S52agg2-x28**	**S54A-Pl4-s33**	**S54A-Pl6-s34**	**S54A-Pl6-s35**	**S52D-Px6-m23**	**S54D-Px6-m24**	**S54D-Px6-m25**
Type	**glass**	**glass**	**glass**	**glass**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	66.42	66.61	68.29	68.67	70.43	71.12	71.46	70.78	70.12	70.56
TiO_2	0.68	0.54	0.91	0.99	0.27	0.28	0.30	0.29	0.40	0.37
Al_2O_3	16.49	17.44	14.46	15.49	13.34	13.10	13.46	13.16	13.11	13.33
FeO	4.05	4.04	4.99	4.39	2.10	1.58	2.23	2.41	2.75	2.53
MnO	0.07	0.08	0.09	0.11	0.03	0.08	0.06	0.11	0.06	0.03
MgO	0.98	0.72	1.26	0.65	0.30	0.23	0.29	0.29	0.32	0.30
CaO	3.16	3.21	2.95	2.90	1.30	1.25	1.35	1.46	1.42	1.31
Na_2O	4.35	4.66	3.85	4.04	4.42	4.41	4.75	4.25	4.44	4.47
K_2O	2.85	2.92	2.69	2.72	3.22	3.11	3.00	3.04	2.93	2.93
P_2O_5	0.18	0.18	0.27	0.29	0.01	0.00	ND	ND	0.04	ND
Total	99.23	100.38	99.77	100.23	95.39	95.17	96.90	95.80	95.58	95.84
F (μg/g)	1168	1562	1787	1323	NA	NA	NA	NA	NA	NA
Cl (μg/g)	1534	1403	2301	1811	2929	2839	2741	29212	3737	2733
S (μg/g)	170	150	130	350	ND	100	100	100	ND	100
Li (μg/g)	NA	NA	NA	NA	28.8	NA	26.7	NA	33.1	30.1
2σ	NA	NA	NA	NA	0.2	NA	0.3	NA	0.4	0.7
Be (μg/g)	NA	NA	NA	NA	1.89	NA	2.07	NA	2.01	1.92
2σ	NA	NA	NA	NA	0.12	NA	0.12	NA	0.12	0.08
B (μg/g)	NA	NA	NA	NA	21.23	NA	20.9	NA	19.7	19.6
2σ	NA	NA	NA	NA	0.75	NA	0.7	NA	0.42	0.5
Sr (μg/g)	NA	NA	NA	NA	48.2	NA	51.0	NA	51.1	50.2
2σ	NA	NA	NA	NA	1.7	NA	2.7	NA	0.7	0.9
Ba (μg/g)	NA	NA	NA	NA	406	NA	439	NA	420	408
2σ	NA	NA	NA	NA	6	NA	10	NA	3	8
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	+6.7	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	1.7	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	4.4	NA	4.1	NA	NA	NA
2σ	NA	NA	NA	NA	0.2	NA	0.1	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.6. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
Sample	**S54A-Pl4-s72**	**S54A-Pl6-s73**	**S54A-Pl7-s74**	**S54D-Px1-m22**	**S54D-Px6-m26**	**S54D-Px5-m27**	**S54m4-m83**	**S54m5-m84**	**S54m11-m85**	**S54m11-m86**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**
SiO_2	71.47	72.80	73.34	73.35	73.10	73.20	69.48	69.50	70.99	70.98
TiO_2	0.28	0.35	0.32	0.25	0.35	0.41	0.27	0.29	0.28	0.27
Al_2O_3	13.69	14.00	14.34	13.95	13.66	13.67	13.63	13.33	13.32	13.19
FeO	2.03	2.06	2.09	2.67	2.49	2.63	2.05	2.10	2.15	1.90
MnO	0.14	0.08	0.05	0.12	0.04	0.03	0.10	ND	0.06	0.01
MgO	0.29	0.30	0.29	0.25	0.25	0.38	0.28	0.28	0.29	0.29
CaO	1.50	1.51	1.38	1.38	1.36	1.76	1.47	1.62	1.38	1.32
Na_2O	4.31	4.65	4.76	4.98	5.09	4.77	4.88	4.06	4.77	4.78
K_2O	3.35	3.32	3.22	3.06	3.21	3.23	3.24	2.78	3.24	3.11
P_2O_5	0.01	0.01	ND	0.05	ND	0.09	0.01	0.08	0.02	ND
Total	97.07	99.07	99.78	100.05	99.55	100.17	95.39	94.04	96.51	95.85
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3386	2839	3280	3206	2823	2921	2929	3149	2701	2921
S (μg/g)	240	70	ND	30	280	310	ND	ND	ND	70
Li (μg/g)	25.7	25.7	NA	NA	33.9	NA	NA	NA	NA	NA
2σ	0.3	0.3	NA	NA	0.7	NA	NA	NA	NA	NA
Be (μg/g)	2.26	2.36	NA	NA	2.05	NA	NA	NA	NA	NA
2σ	0.14	0.10	NA	NA	0.20	NA	NA	NA	NA	NA
B (μg/g)	19.8	19.5	NA	NA	20.6	NA	NA	NA	NA	NA
2σ	0.4	0.7	NA	NA	0.6	NA	NA	NA	NA	NA
Sr (μg/g)	53.9	52.8	NA	NA	57.6	NA	NA	NA	NA	NA
2σ	1.3	1.7	NA	NA	1.5	NA	NA	NA	NA	NA
Ba (μg/g)	432	449	NA	NA	497	NA	NA	NA	NA	NA
2σ	8	7	NA	NA	8	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	1.8	1.5	1.1	NA	NA	NA	NA	NA	NA	NA
2σ	0.1	0.1	0.1	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.7. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**
Sample	**S55A-Pl2-s37**	**S55A-Pl2-s38**	**S55A-Pl2-s39**	**S55A-Pl2-s40**	**S55D-Px3-m29**	**S55D-Px6-m30**	**S55D-Px8-m32**	**S55A-Pl1-s76**	**S55A-Pl2-s77**	**S55A-Pl3-s78**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**	**selvage**
SiO_2	70.03	71.31	69.73	68.46	69.89	68.38	66.72	71.56	71.33	71.25
TiO_2	0.25	0.19	0.24	0.28	0.33	0.36	0.36	0.32	0.31	0.24
Al_2O_3	14.18	13.14	14.03	13.91	13.75	14.20	14.84	13.73	13.76	13.49
FeO	1.94	1.75	1.86	1.77	2.47	2.78	3.00	1.96	1.96	2.10
MnO	0.03	0.09	ND	0.03	0.07	0.14	0.19	0.03	0.01	ND
MgO	0.27	0.27	0.28	0.23	0.42	0.35	0.32	0.27	0.29	0.31
CaO	1.69	1.41	1.53	1.50	1.63	1.98	2.64	1.36	1.49	1.33
Na_2O	4.46	4.42	4.54	4.56	4.58	4.76	4.63	4.41	4.29	4.14
K_2O	3.00	2.96	3.04	3.07	3.06	2.88	2.68	3.16	3.31	3.16
P_2O_5	0.04	0.09	0.00	0.13	0.04	0.04	0.11	ND	0.09	0.07
Total	95.90	95.63	95.24	93.94	96.25	95.87	95.49	96.80	96.83	96.07
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2758	2521	2276	2864	3141	1828	1542	3231	2913	3402
S (μg/g)	ND	170	280	210	210	70	ND	ND	ND	ND
Li (μg/g)	7.34	NA	NA	NA	33.3	28.9	31.0	NA	NA	25.5
2σ	0.23	NA	NA	NA	0.2	0.5	0.4	NA	NA	1.4
Be (μg/g)	1.67	NA	NA	NA	1.99	1.86	1.84	NA	NA	2.06
2σ	0.09	NA	NA	NA	0.12	0.07	0.05	NA	NA	0.08
B (μg/g)	0.23	NA	NA	NA	20.4	13.8	12.3	NA	NA	20.4
2σ	0.09	NA	NA	NA	0.5	0.4	0.5	NA	NA	0.5
Sr (μg/g)	355	NA	NA	NA	63	87	155	NA	NA	52
2σ	6	NA	NA	NA	1	1	2	NA	NA	1
Ba (μg/g)	266	NA	NA	NA	457	494	544	NA	NA	452
2σ	9	NA	NA	NA	6	5	7	NA	NA	8
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	2.6	3.0	NA
2σ	NA	NA	NA	NA	NA	NA	NA	0.1	0.1	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.8. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
Sample	**S55D-Px2-m28**	**S55D-Px6-m31**	**S55D-Px8-m33**	**S55m2-m87**	**S55m2-m88**	**S55m3-m89**	**S55m3-m90**	**S55m5-m91**	**S57A-Pl2-s79**	**S57A-Pl2-s80**
Type	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**	**glass**	**incl**	**incl**
SiO_2	72.80	71.07	69.23	70.66	71.94	70.82	71.20	71.12	71.15	70.70
TiO_2	0.37	0.54	0.39	0.26	0.19	0.30	0.35	0.32	0.28	0.30
Al_2O_3	13.74	14.91	14.51	13.02	13.26	13.23	13.24	13.16	12.61	12.62
FeO	2.29	2.78	2.62	2.14	1.97	2.15	1.86	2.00	2.26	2.15
MnO	0.02	0.05	0.22	0.08	0.04	0.03	0.13	0.07	0.10	0.11
MgO	0.33	0.50	0.49	0.31	0.27	0.31	0.28	0.30	0.28	0.30
CaO	1.34	2.02	1.86	1.31	1.39	1.31	1.37	1.39	1.14	1.02
Na_2O	4.82	4.95	4.96	4.59	4.80	4.77	4.66	4.56	3.32	3.33
K_2O	3.05	2.95	3.06	3.16	3.33	3.28	3.22	3.24	3.06	3.19
P_2O_5	0.07	0.11	0.09	0.06	0.10	0.07	0.04	0.03	0.04	0.05
Total	98.84	99.87	97.42	95.59	97.27	96.28	96.34	96.19	94.23	93.76
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2660	2627	2032	3313	2798	3092	3533	3377.82	3468	3623
S (μg/g)	210	100	30	ND	310	240	ND	30	ND	240
Li (μg/g)	NA	27.2	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	2.09	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.11	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	14.9	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.3	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	96.2	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	546	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
δ^{11}B (‰)	+3.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.9. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
Sample	**S57A-Px2-s82**	**S57A-Px11-s84**	**S57A-Px11-s85**	**S57A-Pl6-s87**	**S57A-Px17-s89**	**S57B-Pl3-s36**	**S57D-Px3-m35**	**S57D-Px3-m36**	**S57D-Px3-m37**	**S57D-Px3-m38**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl-plg**	**incl**	**incl**	**incl**
SiO_2	71.55	70.95	71.18	70.26	72.09	69.66	56.06	70.64	69.47	70.66
TiO_2	0.28	0.33	0.38	0.29	0.29	0.28	0.02	0.25	0.25	0.28
Al_2O_3	13.63	13.63	13.70	13.38	13.69	12.95	27.17	13.68	13.06	13.42
FeO	2.81	2.51	2.38	1.98	2.34	1.87	0.45	1.97	2.16	2.36
MnO	0.08	0.10	0.12	0.08	0.07	0.01	0.00	0.06	0.04	0.04
MgO	0.32	0.25	0.19	0.29	0.25	0.26	0.05	0.25	0.21	0.26
CaO	1.32	1.32	1.45	1.21	1.37	1.23	10.06	1.47	1.21	1.31
Na_2O	3.86	3.90	4.16	3.52	4.22	4.25	5.87	4.27	4.23	4.47
K_2O	2.80	3.13	3.06	3.05	3.17	3.18	0.30	2.95	3.20	3.08
P_2O_5	ND	0.04	0.04	0.09	0.09	0.00	0.03	ND	0.02	0.10
Total	96.64	96.15	96.65	94.13	97.56	93.69	100.01	95.55	93.84	95.99
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3623	2937	3247	3076	2570	2717	49	2660	3100	2831
S (μg/g)	210	ND	170	170	ND	ND	300	5200	3800	1700
Li (μg/g)	NA	NA	NA	NA	NA	18.0	NA	33.0	NA	27.3
2σ	NA	NA	NA	NA	NA	0.4	NA	0.5	NA	0.6
Be (μg/g)	NA	NA	NA	NA	NA	1.90	NA	1.60	NA	1.83
2σ	NA	NA	NA	NA	NA	0.11	NA	0.08	NA	0.08
B (μg/g)	NA	NA	NA	NA	NA	20.4	NA	25.7	NA	16.6
2σ	NA	NA	NA	NA	NA	0.4	NA	0.3	NA	0.4
Sr (μg/g)	NA	NA	NA	NA	NA	55.8	NA	54.5	NA	47.2
2σ	NA	NA	NA	NA	NA	1.6	NA	0.6	NA	0.4
Ba (μg/g)	NA	NA	NA	NA	NA	383	NA	472	NA	373
2σ	NA	NA	NA	NA	NA	7	NA	5	NA	6
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	+14.3	NA	+1.8	NA
2σ	NA	NA	NA	NA	NA	NA	20.7	NA	3.4	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	5.7	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	0.3	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.10. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**100**
Sample	**S57B-Pl3-s75**	**S57-Pl2-s81**	**S57-Px2-s83**	**S57A-Px11-s86**	**S57A-Px17-s90**	**S57D-Px1-m34**	**S57D-Px3-m39**	**S57D-Px4-m40**	**S57m2-m92**	**S57m4-m93**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**glass**	**glass**
SiO_2	72.41	72.02	72.60	73.15	72.58	70.61	71.68	72.10	70.92	71.63
TiO_2	0.30	0.27	0.32	0.38	0.34	0.34	0.23	0.27	0.30	0.30
Al_2O_3	13.37	13.43	13.82	14.13	14.01	13.07	13.49	13.56	13.46	13.05
FeO	2.16	2.18	2.53	2.30	2.28	2.11	2.11	2.45	1.94	2.07
MnO	0.07	0.03	0.11	0.10	0.05	0.13	0.08	0.08	ND	0.10
MgO	0.34	0.28	0.25	0.24	0.31	0.28	0.18	0.21	0.24	0.25
CaO	1.38	1.40	1.39	1.50	1.30	1.32	1.41	1.43	1.34	1.32
Na_2O	4.13	4.04	4.57	4.66	4.43	4.93	4.70	5.11	4.87	4.60
K_2O	3.07	3.25	3.28	3.22	3.37	3.07	3.36	3.22	3.20	2.98
P_2O_5	0.04	0.00	0.09	0.00	0.12	0.09	0.06	0.01	0.03	0.05
Total	97.26	96.92	98.95	99.68	98.78	95.93	97.31	98.45	96.29	96.32
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2937	3182	3296	2978	2774	3459	2733	2660	2660	2880
S (μg/g)	ND	ND	ND	ND	100	ND	ND	100	ND	240
Li (μg/g)	NA	NA	NA	NA	33.0	NA	28.4	NA	NA	NA
2σ	NA	NA	NA	NA	0.19	NA	0.4	NA	NA	NA
Be (μg/g)	NA	NA	NA	NA	1.85	NA	2.13	NA	NA	NA
2σ	NA	NA	NA	NA	0.07	NA	0.06	NA	NA	NA
B (μg/g)	NA	NA	NA	NA	19.16	NA	19.6	NA	NA	NA
2σ	NA	NA	NA	NA	0.37	NA	0.3	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA	55.2	NA	54.3	NA	NA	NA
2σ	NA	NA	NA	NA	0.7	NA	1.1	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA	476	NA	457	NA	NA	NA
2σ	NA	NA	NA	NA	5	NA	3	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	+3.0	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.11. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**101**	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**	**110**
Sample	**S57m5-m94**	**S58A-Pl4-x3**	**S58A-Pl4-x4**	**S58A-Pl4-x5**	**S58A-Pl5-x7**	**S58A-Pl5-x8**	**S58C-Pl1-s16**	**S58C-Pl1-s17**	**S58C-Pl1-s18**	**S58C-Pl1-s19**
Type	**glass**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	70.98	68.90	68.91	68.83	70.76	70.23	69.08	69.23	70.07	69.31
TiO_2	0.28	0.37	0.36	0.30	0.35	0.31	0.28	0.35	0.33	0.34
Al_2O_3	13.16	13.47	13.53	13.52	13.38	13.34	13.23	13.05	12.89	13.08
FeO	1.96	2.19	2.26	2.40	2.01	1.98	1.88	1.80	1.84	2.00
MnO	0.01	0.06	0.10	0.07	0.05	0.07	0.05	0.08	0.03	0.06
MgO	0.31	0.35	0.32	0.38	0.31	0.29	0.36	0.31	0.24	0.30
CaO	1.35	1.48	1.49	1.46	1.33	1.33	1.29	1.32	1.19	1.41
Na_2O	4.70	3.98	3.96	4.01	4.04	3.93	4.52	4.37	4.40	4.34
K_2O	3.36	3.22	3.16	3.20	3.12	3.24	2.99	2.89	3.22	3.19
P_2O_5	0.09	0.04	0.04	0.03	0.04	0.04	0.02	0.05	0.07	0.08
Total	96.19	94.04	94.13	94.18	95.39	94.75	93.68	93.44	94.28	94.10
F (μg/g)	NA	971	1421	957	858	1302	NA	NA	NA	NA
Cl (μg/g)	2750	4006	3957	3631	2962	3321	3370	2978	2554	3582
S (μg/g)	ND	60	20	130	50	70	ND	ND	ND	170
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	7.14	31.3	NA
2σ	NA	NA	NA	NA	NA	NA	NA	0.18	0.8	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	2.09	1.95	NA
2σ	NA	NA	NA	NA	NA	NA	NA	0.10	0.17	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	20.5	19.2	NA
2σ	NA	NA	NA	NA	NA	NA	NA	0.5	0.5	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	49.9	44.2	NA
2σ	NA	NA	NA	NA	NA	NA	NA	1.9	1.2	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	438	419	NA
2σ	NA	NA	NA	NA	NA	NA	NA	10	7	NA
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	4.7	NA	5.2	NA	5.1	4.9
2σ	NA	NA	NA	NA	0.7	NA	0.2	NA	0.1	0.2

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.12. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**111**	**112**	**113**	**114**	**115**	**116**	**117**	**118**	**119**	**120**
Sample	**S58C-Pl2-s21**	**S58C-Plg2-s22**	**S58C-Px2-s23**	**S58C-Pl3-s24**	**S58C-Pl3-s25**	**S58D-Px1-m41**	**S58D-Px4-m43**	**S58D-Px4-m44**	**S58CPl1-s64**	**S58C-Px-s65**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**
SiO_2	69.06	70.35	69.36	70.18	68.72	69.15	69.14	69.55	71.75	72.93
TiO_2	0.30	0.26	0.31	0.33	0.34	0.25	0.25	0.24	0.27	0.24
Al_2O_3	13.33	13.03	13.41	13.34	13.61	12.73	13.29	13.35	13.41	14.02
FeO	2.04	1.98	2.19	2.12	2.18	2.24	2.09	2.06	2.07	2.08
MnO	0.06	0.07	0.04	0.00	0.07	0.11	0.08	0.07	0.09	0.15
MgO	0.31	0.27	0.27	0.28	0.28	0.22	0.33	0.25	0.33	0.22
CaO	1.25	1.14	1.33	1.26	1.33	1.38	1.49	1.43	1.30	1.35
Na_2O	4.27	4.38	4.09	4.79	4.34	4.15	4.49	4.48	4.45	4.60
K_2O	3.03	2.90	3.00	3.11	3.22	3.06	2.89	2.99	3.29	3.09
P_2O_5	0.06	0.05	0.11	0.01	0.04	0.05	ND	0.05	0.04	0.12
Total	93.70	94.44	94.12	95.42	94.12	93.34	94.06	94.45	96.99	98.81
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3296	3011	3051	3541	3557	2929	3027	2676	3231	3419
S (μg/g)	170	170	70	240	ND	ND	ND	ND	240	ND
Li (μg/g)	24.3	NA	12.5	NA	7.8	NA	NA	NA	NA	NA
2σ	0.5	NA	1.2	NA	0.2	NA	NA	NA	NA	NA
Be (μg/g)	2.05	NA	2.12	NA	1.88	NA	NA	NA	NA	NA
2σ	0.11	NA	0.13	NA	0.06	NA	NA	NA	NA	NA
B (μg/g)	19.8	NA	21.8	NA	23.4	NA	NA	NA	NA	NA
2σ	0.5	NA	0.5	NA	0.5	NA	NA	NA	NA	NA
Sr (μg/g)	51.5	NA	50.5	NA	52.3	NA	NA	NA	NA	NA
2σ	1.1	NA	1.8	NA	2.0	NA	NA	NA	NA	NA
Ba (μg/g)	405	NA	450	NA	424	NA	NA	NA	NA	NA
2σ	7	NA	7	NA	9	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	+6.3	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	4.7	NA	NA	NA	NA	2.7	1.8
2σ	NA	NA	NA	0.2	NA	NA	NA	NA	0.2	0.1

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.13. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**121**	**122**	**123**	**124**	**125**	**126**	**127**	**128**	**129**	**130**
Sample	**S58C-Pl2-s66**	**S58C-Pl3-s67**	**S58D-Px3-m42**	**S58D-Px4-m45**	**S58D-Px4-m46**	**S58A-Pl4-x1**	**S58A-Pl4-x2**	**S58A-Pl5-x6**	**S58m1-m95**	**S58m5-m97**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**	**glass**
SiO_2	71.79	71.76	72.95	73.47	72.51	70.55	71.81	72.22	71.28	69.90
TiO_2	0.33	0.25	0.28	0.26	0.26	0.30	0.27	0.30	0.25	0.28
Al_2O_3	13.35	13.79	13.73	13.71	13.50	13.43	13.45	13.24	12.97	12.91
FeO	1.93	1.85	2.34	2.28	2.24	2.03	2.07	2.11	1.99	2.07
MnO	0.09	0.16	0.18	0.09	0.12	0.07	0.04	0.05	0.01	0.01
MgO	0.26	0.22	0.30	0.25	0.23	0.33	0.28	0.29	0.30	0.29
CaO	1.36	1.35	1.50	1.24	1.43	1.45	1.36	1.32	1.35	1.21
Na_2O	4.44	4.29	4.95	4.21	5.02	4.16	4.40	4.35	4.30	4.41
K_2O	3.26	3.38	3.04	3.02	2.96	3.31	3.28	3.35	3.29	3.48
P_2O_5	0.13	0.14	ND	0.05	0.03	0.06	0.03	0.05	0.00	0.02
Total	96.94	97.18	99.28	98.56	98.30	95.69	96.99	97.28	95.73	94.57
F (μg/g)	NA	NA	NA	NA	NA	873	1048	781	NA	NA
Cl (μg/g)	2962	3133	2913	2807	3117	2847	3182	3141	2709	2611
S (μg/g)	70	ND	ND	380	ND	20	ND	ND	30	ND
Li (μg/g)	NA	29.7	NA	29.1	NA	NA	NA	NA	NA	NA
2σ	NA	3.1	NA	0.6	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	2.03	NA	2.16	NA	NA	NA	NA	NA	NA
2σ	NA	0.06	NA	0.08	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	21.4	NA	19.8	NA	NA	NA	NA	NA	NA
2σ	NA	0.4	NA	0.3	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	53	NA	65	NA	NA	NA	NA	NA	NA
2σ	NA	1	NA	3	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	473	NA	472	NA	NA	NA	NA	NA	NA
2σ	NA	4	NA	6	NA	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	+9.6	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	2.6	3.2	NA	NA	NA	NA	NA	2.1	NA	NA
2σ	0.2	0.1	NA	NA	NA	NA	NA	0.1	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.14. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**131**	**132**	**133**	**134**	**135**	**136**	**137**	**138**	**139**	**140**
Sample	**S58m10-m98**	**S611A-Pl5-m56**	**S611A-Px10-m58**	**S611A-Px19-m61**	**S612-Px26-x31**	**S612-Px26-x32**	**S612-Px26-x33**	**S611A-Pl5-m57**	**S611A-Px10-m59**	**S611A-Pl17-m60**
Type	**glass**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**	**selvage**
SiO_2	70.97	68.25	67.87	65.78	58.43	63.13	65.58	70.04	69.33	71.58
TiO_2	0.26	0.49	0.18	0.27	0.36	0.27	0.34	0.53	0.42	0.37
Al_2O_3	13.14	13.09	15.61	12.38	14.33	18.62	18.75	13.63	15.55	13.33
FeO	1.77	2.90	2.10	3.38	4.45	2.13	2.52	2.67	2.79	2.19
MnO	0.05	0.12	0.09	0.17	0.15	0.10	0.09	0.06	0.06	0.08
MgO	0.29	0.64	0.26	2.83	4.15	0.32	0.48	0.59	0.50	0.29
CaO	1.32	1.57	2.75	5.41	10.12	5.11	3.61	1.97	2.34	1.42
Na_2O	4.57	4.31	4.08	4.37	3.57	2.11	5.37	4.43	4.97	4.66
K_2O	3.18	2.96	2.33	2.21	1.53	1.72	2.16	2.82	3.00	3.35
P_2O_5	0.00	0.18	0.12	0.05	0.08	0.14	0.18	0.09	0.17	0.06
Total	95.55	94.50	95.39	96.84	97.18	93.65	99.08	96.82	99.12	97.32
F (μg/g)	NA	NA	NA	NA	408	232	711	NA	NA	NA
Cl (μg/g)	3500	1901	1322	1583	800	1069	1126	1501	1779	3468
S (μg/g)	170	30	210	200	30	ND	170	ND	140	ND
Li (μg/g)	NA	NA	2.01	NA	10.2	NA	33.8	NA	24	NA
2σ	NA	NA	0.12	NA	1.2	NA	1.4	NA	1	NA
Be (μg/g)	NA	NA	0.08	NA	0.73	NA	1.59	NA	2.08	NA
2σ	NA	NA	0.02	NA	0.07	NA	0.08	NA	0.12	NA
B (μg/g)	NA	NA	0.12	NA	3.5	NA	8.49	NA	12.2	NA
2σ	NA	NA	0.05	NA	0.54	NA	0.29	NA	0.2	NA
Sr (μg/g)	NA	NA	0.44	NA	96	NA	193	NA	113	NA
2σ	NA	NA	0.17	NA	13	NA	5	NA	3	NA
Ba (μg/g)	NA	NA	0.28	NA	175	NA	388	NA	542	NA
2σ	NA	NA	0.30	NA	26	NA	7	NA	9	NA
δ^{11}B (‰)	NA	+5.9	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.15. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**141**	**142**	**143**	**144**	**145**	**146**	**147**	**148**	**149**	**150**
Sample	**S612-Pl6-x29**	**S612-Pl6-x30**	**S612-Px26-x35**	**S612-Px18-m62**	**S612-Px28-m65**	**S612-Px18-m64**	**S612-Px28-m66**	**S612-Pl3-m67**	**S612-Pl6-m68**	**S59A-Pl9-p1-1**
Type	**glass**	**glass**	**glass**	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**selvage**	**incl**
SiO_2	71.97	71.47	67.67	65.18	61.42	63.33	61.55	69.06	59.53	71.30
TiO_2	0.32	0.31	0.34	0.21	0.33	0.45	0.34	0.24	0.22	0.30
Al_2O_3	13.75	13.68	16.28	16.76	16.82	12.71	11.57	12.85	11.46	13.43
FeO	2.03	2.12	2.15	2.48	2.23	2.06	2.02	1.70	1.81	2.02
MnO	0.07	0.08	0.05	0.10	0.05	0.03	0.14	ND	0.04	0.09
MgO	0.32	0.28	0.32	0.47	0.81	0.30	0.31	0.17	0.26	0.28
CaO	1.40	1.41	3.10	2.96	3.78	1.57	1.46	1.29	1.08	1.21
Na_2O	4.33	4.30	4.96	4.78	4.00	3.78	3.39	4.24	3.97	2.78
K_2O	3.27	3.24	2.18	2.20	1.75	2.97	2.73	2.53	2.64	3.08
P_2O_5	0.03	0.04	0.23	0.16	0.12	0.25	0.25	0.08	ND	0.06
Total	97.49	96.92	97.28	95.30	91.30	87.45	83.75	92.16	81.00	94.54
F (μg/g)	1020	781	887	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3011	3100	1624	1762	1950	1909	2970	3231	3549	3174
S (μg/g)	ND	ND	90	170	ND	70	ND	100	100	220
Li (μg/g)	NA	NA	NA	27.5	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	1.81	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.09	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	9.7	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.2	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	178	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	4	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	477	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	10	NA	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.16. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**151**	**152**	**153**	**154**	**155**	**156**	**157**	**158**	**159**	**160**
Sample	**S59A-Pl9-p1-3**	**S59A-Pl9-p1-5**	**S59A-Pl9-p2-1**	**S59A-Pl9-p2-2**	**S59A-Pl9-p3-1**	**S59A-Pl1-p1-1**	**S59A-Pl1-p1-2**	**S59A-Pl3-p1**	**S59A-Pl4-p1**	**S59A-Pl4-p2**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	71.32	71.27	71.29	71.53	70.16	71.52	70.08	69.91	68.81	70.83
TiO_2	0.24	0.28	0.26	0.28	0.28	0.30	0.31	0.27	0.43	0.28
Al_2O_3	13.16	13.21	13.45	13.38	13.36	12.93	13.17	12.87	13.67	13.46
FeO	1.80	1.89	1.88	1.88	1.79	1.84	1.80	2.05	2.37	2.14
MnO	0.09	ND	0.08	0.01	0.06	0.09	0.13	0.00	0.03	0.02
MgO	0.25	0.24	0.28	0.30	0.32	0.31	0.32	0.35	0.34	0.29
CaO	1.21	1.25	1.28	1.24	1.33	1.25	1.24	1.15	1.65	1.38
Na_2O	3.23	2.78	3.79	2.57	3.80	4.12	3.32	3.97	4.28	4.25
K_2O	3.18	3.22	3.17	3.27	3.24	3.24	3.32	3.33	3.12	3.02
P_2O_5	0.01	0.03	0.05	0.04	0.07	0.11	0.01	0.06	0.16	0.01
Total	94.49	94.18	95.54	94.48	94.40	95.70	93.71	93.94	94.85	95.67
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2709	2562	2954	3019	3157	2709	3598	3598	4218	3312
S (μg/g)	ND	360	180	ND	70	40	320	180	250	ND
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	4.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.17. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**161**	**162**	**163**	**164**	**165**	**166**	**167**	**168**	**169**	**170**
Sample	**S59A-Pl4-p3**	**S59A-Pl5-p1**	**S59A-Pl7-p1**	**S59A-Pl10-p1**	**S59A-Pl10-p2-1**	**S59A-Pl10-p2-2**	**S59A-Pl2-p1**	**S59A-Pl2-p1-2**	**S59A-Pl2-p2**	**S59C-Pl1-s27**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	71.17	69.23	70.23	70.38	69.41	69.64	69.86	70.25	69.82	70.18
TiO_2	0.28	0.43	0.30	0.29	0.30	0.31	0.31	0.28	0.28	0.30
Al_2O_3	13.81	13.51	13.47	13.34	13.45	13.40	13.15	13.31	13.21	13.47
FeO	2.12	2.21	2.06	1.79	2.16	1.94	2.06	1.98	1.96	2.11
MnO	0.14	0.08	0.05	0.02	0.07	0.11	0.15	0.15	0.11	0.08
MgO	0.42	0.30	0.27	0.33	0.28	0.32	0.30	0.26	0.24	0.25
CaO	1.35	1.33	1.20	1.26	1.38	1.34	1.25	1.37	1.30	1.28
Na_2O	4.36	3.97	4.18	4.36	3.95	3.85	3.82	3.79	3.94	4.42
K_2O	2.97	3.43	3.20	3.08	3.10	3.15	3.12	3.06	3.08	2.98
P_2O_5	ND	0.21	ND	0.03	0.09	0.03	0.06	ND	0.02	0.07
Total	96.62	94.70	94.95	94.88	94.18	94.09	94.09	94.45	93.95	95.14
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3549	3060	2170	3141	3157	3288	3313	3174	3092	3370
S (μg/g)	390	70	110	110	ND	110	ND	40	ND	ND
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.8
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.1
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.4
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	49
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	439
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	7
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	6.6	5.3	7.0	NA	6.1	NA	6.6	4.5
2σ	NA	NA	0.3	0.2	0.1	NA	0.1	NA	0.2	0.1

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.18. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**171**	**172**	**173**	**174**	**175**	**176**	**177**	**178**	**179**	**180**
Sample	**S59C-Pl1-s28**	**S59C-Pl3-s29**	**S59C-Pl4-s30**	**S59C-Pl4-s31**	**S59C-Pl4-s32**	**S59D-Px1-m47**	**S59D-Px1-m48**	**S59D-Px3-m51**	**S59D-Px10-m52**	**S59D-Px10-m53**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	69.94	68.43	70.64	71.19	69.84	69.66	71.56	70.65	70.82	70.70
TiO_2	0.27	0.30	0.31	0.25	0.29	0.28	0.31	0.31	0.29	0.36
Al_2O_3	13.27	13.72	13.33	12.70	12.88	13.49	13.03	13.63	13.22	13.60
FeO	1.96	2.09	1.90	1.69	1.94	2.16	2.16	2.06	2.52	2.34
MnO	0.09	0.01	0.12	0.02	0.09	ND	0.01	0.15	ND	0.01
MgO	0.27	0.30	0.27	0.28	0.32	0.23	0.23	0.15	0.22	0.15
CaO	1.26	1.46	1.21	1.19	1.39	1.38	1.24	1.54	1.44	1.57
Na_2O	4.68	4.32	4.45	4.24	4.40	4.58	3.44	4.53	4.69	4.61
K_2O	2.81	3.29	3.42	3.23	3.30	3.06	3.20	2.99	3.12	3.13
P_2O_5	0.12	0.06	0.09	0.07	0.00	0.05	ND	0.03	ND	ND
Total	94.68	93.99	95.74	94.84	94.44	94.88	95.17	96.03	96.31	96.47
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3060	4022	3247	1917	3492	3639	2880	3239	3696	3109
S (μg/g)	100	ND	ND	ND	240	ND	ND	170	140	ND
Li (μg/g)	13.3	30.3	NA	NA	NA	29.8	NA	NA	30.3	NA
2σ	0.2	0.4	NA	NA	NA	0.2	NA	NA	0.4	NA
Be (μg/g)	1.88	1.85	NA	NA	NA	2.60	NA	NA	1.89	NA
2σ	0.19	0.06	NA	NA	NA	0.11	NA	NA	0.09	NA
B (μg/g)	6.41	26.0	NA	NA	NA	22.0	NA	NA	20.9	NA
2σ	0.32	0.5	NA	NA	NA	0.6	NA	NA	0.6	NA
Sr (μg/g)	276	49	NA	NA	NA	51	NA	NA	53	NA
2σ	5	3	NA	NA	NA	1	NA	NA	1	NA
Ba (μg/g)	284	425	NA	NA	NA	447	NA	NA	454	NA
2σ	9	8	NA	NA	NA	6	NA	NA	6	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	+4.0	NA	NA	+5.0	NA
2σ	NA	NA	NA	NA	NA	1.6	NA	NA	2.1	NA
H_2O (wt. %)	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.19. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**181**	**182**	**183**	**184**	**185**	**186**	**187**	**188**	**189**	**190**
Sample	**S59A-Pl9-p4-1**	**S59A-Pl9-p5-1**	**S59A-Pl9-p5-3**	**S59A-Pl1-p1-3**	**S59A-Pl3-p2**	**S59A-Pl7-p2**	**S59A-Pl10-p-3**	**S59A-Pl2-p3**	**S59C-Pl1-s68**	**S59C-Pl2-s69**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**
SiO_2	72.42	73.11	71.66	71.18	71.42	71.59	71.23	70.71	72.15	72.01
TiO_2	0.24	0.40	0.35	0.32	0.29	0.33	0.31	0.31	0.30	0.30
Al_2O_3	13.59	13.89	13.60	13.51	13.45	13.25	13.55	13.52	13.94	13.48
FeO	1.94	2.13	2.01	2.07	2.18	1.82	2.07	1.95	2.19	2.14
MnO	0.07	0.02	0.01	0.12	0.00	0.03	0.01	0.08	0.08	0.11
MgO	0.29	0.29	0.31	0.29	0.29	0.25	0.29	0.27	0.26	0.32
CaO	1.31	1.36	1.42	1.44	1.43	1.33	1.32	1.41	1.44	1.36
Na_2O	4.40	4.58	4.80	4.34	4.54	4.26	4.63	4.45	4.56	4.58
K_2O	3.11	3.13	3.25	3.13	3.22	3.26	3.20	3.00	3.39	3.30
P_2O_5	0.02	0.07	ND	0.02	0.09	ND	0.14	0.14	0.01	0.06
Total	97.38	98.98	97.41	96.40	96.90	96.12	96.75	95.84	98.31	97.65
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2660	3623	2896	2954	2954	2611	3043	3002	2717	3272
S (μg/g)	110	ND	180	ND	ND	ND	ND	110	30	100
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.5
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.3
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.15
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.9
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.7
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	52
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	8
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	1.4	2.0	NA	NA	NA	NA	3.8	3.5	2.2	1.5
2σ	0.1	0.1	NA	NA	NA	NA	0.1	0.2	0.1	0.2

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.20. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**191**	**192**	**193**	**194**	**195**	**196**	**197**	**198**	**199**	**200**
Sample	**S59C-Pl3-s70**	**S59C-Pl4-s71**	**S59D-Px3-m50**	**S59D-Px10-m54**	**S59D-Px10-m55**	**S59m2-m99**	**S59m4-m100**	**S59m5-m101**	**S59m7-m102**	**S59m10-m103**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**	**glass**
SiO_2	70.57	71.60	72.94	71.37	70.83	70.33	70.66	70.25	72.05	70.43
TiO_2	0.25	0.24	0.34	0.31	0.28	0.32	0.30	0.33	0.31	0.24
Al_2O_3	13.21	13.60	13.86	13.50	13.25	13.18	13.30	13.33	13.43	13.03
FeO	2.22	2.13	2.42	1.98	2.18	1.91	1.82	1.92	1.99	2.03
MnO	0.04	ND	0.08	0.11	0.16	0.02	0.08	0.08	0.03	0.09
MgO	0.33	0.27	0.30	0.27	0.30	0.27	0.26	0.29	0.32	0.29
CaO	1.34	1.38	1.42	1.43	1.43	1.38	1.29	1.37	1.44	1.25
Na_2O	3.82	4.21	5.22	4.66	4.54	4.55	4.56	4.69	4.80	4.81
K_2O	3.09	3.16	3.20	3.23	3.26	3.33	3.19	3.23	3.06	3.17
P_2O_5	0.01	0.09	ND	0.03	ND	0.04	0.05	ND	0.00	ND
Total	94.89	96.68	99.76	96.87	96.22	95.33	95.52	95.49	97.42	95.34
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3280	3060	2513	3043	2676	2758	2937	2954	3239	3043
S (μg/g)	30	ND	ND	ND	210	ND	ND	30	210	100
Li (μg/g)	NA	NA	NA	23.5	25.8	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.3	0.3	NA	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	2.08	2.01	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.07	0.09	NA	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	20.1	19.9	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.4	0.5	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	54.6	55.7	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.8	0.8	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	482	504	NA	NA	NA	NA	NA
2σ	NA	NA	NA	4	5	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	3.3	3.4	NA	NA	NA	NA	NA	NA	NA	NA
2σ	0.1	0.2	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.21. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**201**	**202**	**203**	**204**	**205**	**206**	**207**	**208**	**209**	**210**
Sample	**S59m11-m104**	**S50C-Pl2-s1**	**S50C-Pl2-s2**	**S50C-Pl3-s3**	**S50C-Pl3-s4**	**S50C-Pl3-s5**	**S50C-Pl4-s6**	**S50C-Pl4-s7**	**S50D-Px3-m3**	**S50D-Px2-m4**
Type	**glass**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl-plg**	**incl**
SiO_2	71.27	69.97	70.33	69.17	68.49	69.14	68.46	68.48	56.49	69.85
TiO_2	0.33	0.27	0.28	0.35	0.32	0.33	0.29	0.30	0.26	0.30
Al_2O_3	13.37	13.42	13.34	13.44	13.87	13.22	13.75	13.72	11.05	13.56
FeO	1.91	1.78	1.90	2.07	2.01	1.99	2.51	2.47	2.42	2.41
MnO	ND	0.00	0.04	0.12	ND	0.06	ND	0.06	0.13	0.13
MgO	0.30	0.32	0.33	0.38	0.29	0.25	0.36	0.35	0.56	0.29
CaO	1.33	1.26	1.33	1.34	1.57	1.29	1.49	1.54	11.83	1.65
Na_2O	4.75	4.68	4.47	4.43	4.42	4.43	4.60	4.48	4.09	4.60
K_2O	3.33	3.11	3.13	3.60	2.99	3.24	3.10	3.11	2.48	2.68
P_2O_5	ND	0.06	0.04	0.03	0.01	ND	0.14	0.09	9.14	ND
Total	96.59	94.85	95.18	94.92	93.97	93.95	94.70	94.58	98.44	95.46
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3264	2178	2807	3509	3802	2954	4063	3484	5507	2782
S (μg/g)	ND	480	ND	170	450	ND	100	ND	ND	ND
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	4.3	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	0.2	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	0.158	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	0.028	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	1.3	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	2.68	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	0.26	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	22.2	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	4.1	NA	NA	NA	4.0	NA	NA
2σ	NA	NA	NA	0.1	NA	NA	NA	0.1	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.22. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**211**	**212**	**213**	**214**	**215**	**216**	**217**	**218**	**219**	**220**
Sample	**S50D-Px7-m6**	**S50D-Px9-m8**	**S50D-Px8-m9**	**S50D-Px8-m10**	**S50D-Px10-m12**	**S50D-Px10-m13**	**S50D-Px10-m14**	**S50D-Px10-m15**	**S50D-Pl2-s60**	**S50C-Pl3-s61**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**
SiO_2	70.21	66.80	70.61	65.72	70.55	69.64	69.89	69.41	72.63	72.14
TiO_2	0.35	0.37	0.29	4.31	0.32	0.31	0.22	0.27	0.31	0.29
Al_2O_3	13.01	14.30	13.50	12.27	13.44	13.69	13.84	13.68	13.52	13.57
FeO	2.24	2.29	2.12	6.37	2.52	2.16	2.20	2.28	2.10	2.00
MnO	0.06	0.08	0.08	0.15	0.04	0.10	0.07	0.08	0.00	0.07
MgO	0.51	0.33	0.43	0.44	0.28	0.24	0.30	0.27	0.27	0.25
CaO	1.45	1.94	1.35	1.24	1.37	1.43	1.43	1.39	1.34	1.31
Na_2O	4.21	4.86	4.34	4.57	4.48	4.63	4.59	4.65	4.30	4.26
K_2O	3.26	3.02	3.19	2.80	3.12	3.20	3.25	3.19	3.18	3.29
P_2O_5	0.03	0.05	0.05	ND	ND	0.04	0.09	ND	0.09	0.08
Total	95.33	94.03	95.95	97.86	96.12	95.43	95.88	95.23	97.73	97.24
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	2847	2244	3002	3157	3280	2782	3043	3043	3712	3060
S (μg/g)	ND	30	ND	ND	100	100	240	ND	ND	ND
Li (μg/g)	NA	NA	NA	NA	NA	NA	32.3	30.8	28.9	NA
2σ	NA	NA	NA	NA	NA	NA	0.3	0.4	0.3	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	2.07	2.04	2.21	NA
2σ	NA	NA	NA	NA	NA	NA	0.06	0.05	0.06	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	21.8	21.5	22.0	NA
2σ	NA	NA	NA	NA	NA	NA	0.5	0.5	0.5	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	57.7	56.3	51.0	NA
2σ	NA	NA	NA	NA	NA	NA	0.9	0.9	1.5	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	506	493	438	NA
2σ	NA	NA	NA	NA	NA	NA	6	6	12	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	+5.3	+8.3	NA	NA	NA
2σ	NA	NA	NA	NA	NA	1.5	1.5	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.23. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**221**	**222**	**223**	**224**	**225**	**226**	**227**	**228**	**229**	**230**
Sample	**S50D-Px3-m1**	**S50D-Px3-m2**	**S50D-Px7-m5**	**S50D-Px7-m7**	**S50D-Px10-m11**	**S50m1-m69**	**S50m1-m70**	**S50m-m71**	**S50m3-m72**	**S50m4-m73**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**	**glass**
SiO_2	71.17	72.11	70.88	71.91	69.89	70.94	71.15	71.44	71.90	72.13
TiO_2	0.26	0.26	0.34	0.30	0.83	0.27	0.30	0.30	0.32	0.27
Al_2O_3	13.18	13.11	13.49	13.60	13.13	12.92	13.21	13.18	13.02	13.38
FeO	1.81	2.08	2.12	2.29	4.04	2.01	2.07	2.03	1.98	1.86
MnO	0.06	0.06	0.20	0.05	0.13	0.04	0.06	0.07	0.04	0.07
MgO	0.23	0.20	0.22	0.21	0.25	0.26	0.28	0.25	0.26	0.25
CaO	1.25	1.21	1.35	1.35	1.26	1.25	1.33	1.26	1.22	1.31
Na_2O	4.76	4.58	4.85	4.82	4.63	4.51	4.63	4.74	4.53	4.42
K_2O	3.23	3.09	3.16	3.04	3.18	3.24	3.17	3.17	3.25	3.12
P_2O_5	0.01	0.03	0.11	0.05	0.03	0.06	0.02	0.06	0.09	0.11
Total	95.97	6.71	96.70	97.61	97.37	95.50	96.22	96.52	96.60	96.93
F (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	3117	3557	2970	3092	2570	3068	3500	2798	2676	3174
S (μg/g)	ND	30	100	ND	210	280	380	170	140	350
Li (μg/g)	NA	29.1	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.3	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	2.03	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.08	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	20.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	0.3	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	50.3	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	1.01	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	483	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	+5.3	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.24. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**231**	**232**	**233**	**234**	**235**	**236**	**237**	**238**	**239**	**240**
Sample	**S50m4-m74**	**S511A-Pl14-s91**	**S511B-Px6-x16**	**S511B-Pl3-x17**	**S511B-Pl3-x18**	**S511B-Pl3-x19**	**S511A-Pl14-s92**	**S511B-Pl2-x9**	**S511B-Pl2-x10**	**S511B-Pl2-x11**
Type	**glass**	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**glass**	**glass**	**glass**
SiO_2	71.07	63.11	63.78	68.02	68.48	66.93	69.62	69.67	70.05	69.23
TiO_2	0.25	0.56	0.45	0.31	0.31	0.48	0.42	0.48	0.44	0.43
Al_2O_3	13.13	15.59	15.36	15.00	15.07	15.06	14.50	14.57	14.30	14.35
FeO	2.04	4.31	3.77	2.21	2.15	2.68	3.03	3.04	3.08	2.98
MnO	0.08	0.18	0.19	0.07	0.04	0.09	0.03	0.05	0.11	0.08
MgO	0.26	1.20	4.10	0.42	0.43	0.60	0.52	0.65	0.73	0.65
CaO	1.30	3.46	3.19	2.26	2.20	2.45	2.07	2.14	2.11	1.95
Na_2O	4.51	4.32	3.54	4.30	4.28	4.29	4.32	4.31	4.39	4.27
K_2O	3.11	2.71	1.37	2.96	2.95	2.95	3.13	3.05	3.04	3.05
P_2O_5	0.03	0.10	0.12	0.07	0.08	0.13	0.17	0.12	0.15	0.14
Total	95.79	95.52	95.87	95.61	95.99	95.66	97.80	98.08	98.37	97.12
F (μg/g)	NA	NA	1238	521	1161	1077	NA	1041	908	1098
Cl (μg/g)	3361	1387	1322	1770	1901	2366	2129	2072	2439	1917
S (μg/g)	170	170	230	50	10	220	240	ND	30	200
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ^{11}B (‰)	NA	NA	NA	+2.6	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	2.1	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	5.3	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	0.3	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.25. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Pl and Px Phenocrysts of Minoan Unit D Pumice Clasts

n	**241**	**242**	**243**	**244**
Sample	**S511B-Pl2-x12**	**S511B-Px6-x13**	**S511B-Px6-x14**	**S511B-Px6-x15**
Type	**glass**	**glass**	**glass**	**glass**
SiO_2	69.55	67.03	66.97	62.90
TiO_2	0.49	0.64	0.65	0.33
Al_2O_3	14.27	15.58	15.31	20.77
FeO	2.91	3.94	4.15	2.33
MnO	0.04	0.11	0.07	0.05
MgO	0.65	0.74	0.91	0.36
CaO	1.95	2.64	2.93	5.71
Na_2O	4.29	4.69	4.63	5.53
K_2O	3.10	2.91	2.99	1.62
P_2O_5	0.12	0.21	0.20	0.11
Total	97.36	98.49	98.81	99.70
F (μg/g)	753	824	957	443
Cl (μg/g)	1950	2162	1673	808
S (μg/g)	30	50	100	20
Li (μg/g)	NA	NA	NA	NA
2σ	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	NA
2σ	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	NA
2σ	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA
2σ	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA
2σ	NA	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	+4.2
2σ	NA	NA	NA	3.2
H_2O (wt. %)	NA	NA	NA	NA
2σ	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001).

Table F.26. SIMS Analyses of Glass Inclusions and Glass Selvages

n	1	2	3	4	5	6	7	8	9	10
SIMS	**sims-l9**	**sims-l7**	**sims-l6**	**sims-l8**	**sims-l11**	**sims-l12**	**sims-l10**	**sims-l13**	**sims-sm17**	**sims-sm18**
EMS	**S52C-Pl1**	**S52C-Pl1**	**S52C-Pl1**	**S52C-Pl1**	**S52C-Pl2-s15**	**S52C-Pl2**	**S52C-Pl1**	**S52C-Pl3-s63**	**S52D-Px5**	**S52D-Px5**
Type	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**selvage**
Li (μg/g)	31.4	32	30.8	7.7	30.6	30.6	27.7	28.5	30.1	30.9
2σ	0.5	1	0.3	0.2	0.3	0.3	0.4	0.4	0.2	0.4
Be (μg/g)	1.89	1.94	2.02	1.91	1.96	1.96	2.19	2.11	2.33	2.33
2σ	0.05	0.07	0.11	0.14	0.11	0.11	0.15	0.09	0.14	0.08
B (μg/g)	24.2	20.4	21.7	25.2	22.3	21.4	20.6	20.3	19.5	19.6
2σ	0.5	0.3	0.5	0.5	0.4	0.5	0.5	0.4	0.3	0.4
Mg (μg/g)	1884	1477	1662	1821	1597	1586	1742	1601	NA	NA
2σ	18	15.5	13	21	8	17	14	10	NA	NA
Sr (μg/g)	48.9	62.3	41.6	42.8	55	53.5	46.7	51.3	52.5	50.4
2σ	1.8	1.5	1.0	1.1	2	1.9	1.5	1.3	0.8	0.6
Ba (μg/g)	388	384	429	415	385	392	420	451	453	464
2σ	9	10	6	10	7	8	11	7	5	3
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	4.9	NA	NA	5.6	NA	NA	NA	1.3	NA	NA
2σ	0.2	NA	NA	0.2	NA	NA	NA	0.1	NA	NA
n	11	12	13	14	15	16	17	18	19	20
SIMS	**sims-l35**	**sims-l37**	**sims-l36**	**sims-l38**	**sims-sm19**	**sims-sm20**	**sims-sm21**	**sims-sm22**	**sims-sm23**	**sims-l41**
EMS	**S54A-Pl4-s33**	**S54A-Pl6-s35**	**S54A-Pl4-s72**	**S54A-Pl6-s73**	**S54D-Px6-m24**	**S54Dpx6-m24-2**	**S54D-Px6-m25**	**S54D-Px6-m26**	**S54D-Px11**	**S55A-Pl1**
Type	**incl**	**incl**	**selvage**	**selvage**	**incl**	**incl**	**incl**	**selvage**	**selvage**	**incl**
Li (μg/g)	28.8	26.7	25.8	25.7	33.1	32.2	30.1	33.9	28.1	7.2
2σ	0.2	0.3	0.3	0.3	0.4	0.3	0.7	0.7	0.5	0.2
Be (μg/g)	1.89	2.07	2.26	2.36	2.01	2.03	1.92	2.05	1.99	2.00
2σ	0.12	0.12	0.14	0.10	0.12	0.11	0.08	0.20	0.07	0.08
B (μg/g)	21.2	20.9	19.88	19.5	19.7	19.8	19.6	20.6	18.6	20.4
2σ	0.7	0.7	0.4	0.7	0.4	0.6	0.5	0.6	0.6	0.6
Mg (μg/g)	1588	1551	1833	1854	NA	NA	NA	NA	NA	1604
2σ	35	19	15	15	NA	NA	NA	NA	NA	23
Sr (μg/g)	48.2	51	53.9	52.8	51.1	49.7	50.2	57.6	96.3	51
2σ	1.7	2.7	1.3	1.7	0.7	1.6	0.9	1.5	1.2	1
Ba (μg/g)	406	439	432	449	420	423	408	497	380	431
2σ	6	10	8	7	4	3	9	8	5	10
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	4.4	4.1	1.8	1.5	NA	NA	NA	NA	NA	NA
2σ	0.2	0.1	0.1	0.1	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit A pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

Table F.27. SIMS Analyses of Glass Inclusions and Glass Selvages

n	21	22	23	24	25	26	27	28	29	30
SIMS	**sims-l42**	**sims-l44**	**sims-l45**	**sims-l43**	**sims-sm1**	**sims-sm2**	**sims-sm3**	**sims-sm4**	**sims-sm5**	**sims-sm6**
EMS	**S55A-Pl1**	**S55A-Pl2-s37**	**S55A-Pl2**	**S55A-Pl3-s78**	**S55D-Px6**	**S55D-Px6-m30**	**S55D-Px7**	**S55D-Px8-m32**	**S55D-Px8**	**S55D-Px8**
Type	**incl**	**incl**	**incl**	**selvage**	**selvage**	**incl**	**selvage**	**incl**	**selvage**	**selvage**
Li (μg/g)	16.1	7.3	32.5	25.6	32.0	28.9	30.3	31.0	20.7	15.5
2σ	0.2	0.2	0.4	1.4	0.3	0.5	0.9	0.4	0.2	0.3
Be (μg/g)	1.99	1.67	2.07	2.06	2.01	1.86	2.02	1.84	2.11	2.00
2σ	0.10	0.09	0.10	0.08	0.09	0.07	0.11	0.05	0.12	0.08
B (μg/g)	20.7	0.2	20.1	20.4	14.5	13.8	20.6	12.3	13.7	10.2
2σ	0.5	0.1	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.4
Mg (μg/g)	1505	144	1609	1599	NA	NA	NA	NA	NA	NA
2σ	14	4	18	10	NA	NA	NA	NA	NA	NA
Sr (μg/g)	48.5	354.7	63.5	52.0	95.0	87.5	55.1	155.5	86.8	203.1
2σ	1.5	5.6	2.5	1.2	1.0	1.5	1.0	1.6	0.4	6.4
Ba (μg/g)	433	266	435	452	542	494	479	544	532	401
2σ	11	9	9	9	5	5	4	7	4	9
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	+23.1
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.6
H_2O (wt. %)	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA

n	31	32	33	34	35	36	37	38	39	40
SIMS	**sims-sm7**	**sims-sm8**	**sims -sm42**	**sims-sm43**	**sims-sm44**	**sims-l39**	**sims-l40**	**sims (sm27)**	**sims-sm28**	**sims-sm24**
EMS	**S55D-Px2-m29**	**S55D-Px2**	**S55D-Px4-P1**	**S55D-Px6-P1**	**S55D-Px6-P2**	**S57B-Pl3-s36**	**S57B-Pl3-s75**	**S57Dpx3-m36**	**S57D-Px3-m38**	**S57D-Px3-m39**
Type	**incl**	**selvage**	**selvage**	**selvage**	**selvage**	**incl**	**selvage**	**incl**	**incl**	**selvage**
Li (μg/g)	33.3	28.9	28.0	30.4	27.2	18.0	25.7	32.9	27.3	28.4
2σ	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.5	0.6	0.4
Be (μg/g)	1.99	2.10	2.05	2.07	2.09	1.90	2.18	1.60	1.83	2.13
2σ	0.12	0.07	0.08	0.09	0.11	0.11	0.10	0.08	0.08	0.06
B (μg/g)	20.4	20.5	20.1	16.2	14.9	20.4	22.6	25.6	16.6	19.6
2σ	0.5	0.4	0.5	0.5	0.3	0.4	0.4	0.3	0.4	0.3
Mg (μg/g)	NA	NA	NA	NA	NA	1363	1616	NA	NA	NA
2σ	NA	NA	NA	NA	NA	12	10	NA	NA	NA
Sr (μg/g)	62.9	56.7	53.1	94.1	96.2	55.8	50.3	54.5	47.2	54.3
2σ	1.5	0.9	0.8	1.8	1.2	1.6	1.7	0.6	0.4	1.1
Ba (μg/g)	457	501	465	551	546	383	458	472	373	457
2σ	6	5	3	7	4	7	12	5	6	2
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	5.7	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	0.3	NA	NA	NA	NA

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit A pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

Table F.28. SIMS Analyses of Glass Inclusions and Glass Selvages

n	41	42	43	44	45	46	47	48	49	50
SIMS	**sims-sm25**	**sims-sm26**	**sims -sm29**	**sims-sm30**	**sims-l15**	**sims-l14**	**sims-l18**	**sims-l19**	**sims-l22**	**sims-l23**
EMS	**S57D-Px3-m39wdh**	**S57D-Px3**	**S57Dpx4**	**S57D-Px1-m34**	**S58C-Pl1-s16**	**S58C-Pl1-s18**	**S58C-Pl2-s21**	**S58C-Pl2-s22**	**S58C-Pl3-s25**	**S58C-Pl3**
Type	**selvage**	**selvage**	**selvage**	**selvage**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
Li (μg/g)	27.2	37.4	28.6	33.0	7.1	31.3	24.3	10.8	7.8	11.3
2σ	0.4	1.3	0.3	0.2	0.2	0.8	0.5	0.3	0.2	0.2
Be (μg/g)	2.21	2.11	2.12	1.85	2.09	1.95	2.05	1.93	1.88	2.10
2σ	0.12	0.11	0.08	0.07	0.10	0.17	0.11	0.08	0.06	0.08
B (μg/g)	19.4	21.9	19.5	19.2	20.5	19.2	19.8	20.5	23.4	19.7
2σ	0.5	0.8	0.2	0.4	0.5	0.5	0.5	0.2	0.5	0.5
Mg (μg/g)	NA	NA	NA	NA	1443	1400	1532	1483	1597	1455
2σ	NA	NA	NA	NA	20	26	46	21	30	23
Sr (μg/g)	54.6	53.8	53.7	55.2	49.9	44.2	51.5	46.0	52.3	46.2
2σ	0.6	1.7	1.1	0.7	1.9	1.2	1.1	1.9	2.0	2.9
Ba (μg/g)	479	451	458	476	438	419	405	425	424	436
2σ	5	20	2	5	10	7	7	8	9	5
δ^{11}B (‰)	NA	NA	+6.3	NA	NA	+3.0	NA	NA	NA	NA
2σ	NA	NA	1.8	NA	NA	1.8	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	5.2	5.1	NA	5.2	NA	5.1
2σ	NA	NA	NA	NA	0.2	0.1	NA	0.2	NA	0.2

n	51	52	53	54	55	56	57	58	59	60
SIMS	**sims-l21**	**sims-l17**	**sims-l20**	**sims-l25**	**sims-l24**	**sims-l16**	**sims-sm46**	**sims-sm31**	**sims-sm47**	**sims-l86**
EMS	**S58C-Px2-s23**	**S58C-Pl1**	**S58C-Pl2-s66**	**S58C-Pl3-s67**	**S58C-Pl3**	**S58C-Px1-s65**	**S58D-Px1-sk**	**S58D-Px4-m45**	**S58D-Px7-cm**	**S612-Px18-s6**
Type	**incl**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**incl**
Li (μg/g)	12.5	20.7	23.3	29.7	25.3	27	23.1	29.1	24.8	27.5
2σ	1.2	0.3	0.2	3.1	0.5	0.3	0.4	0.6	0.5	0.2
Be (μg/g)	2.12	2.15	2.26	2.03	2.22	2.14	1.50	2.16	2.01	1.81
2σ	0.13	0.10	0.09	0.06	0.10	0.08	0.09	0.08	0.09	0.09
B (μg/g)	21.8	21.5	19.7	21.4	20.5	21.3	15.1	19.8	19.7	9.7
2σ	0.5	0.4	0.2	0.4	0.6	0.5	0.5	0.3	0.6	0.2
Mg (μg/g)	1450	1647	1619	1920	1691	1628	NA	NA	NA	NA
2σ	11	16	10	14	10	11	NA	NA	NA	NA
Sr (μg/g)	50.5	50.1	51.1	53.3	53.0	53.4	45.4	64.8	52.	178
2σ	1.9	1.6	1.9	1.4	1.4	2.4	1.5	2.9	1.0	4
Ba (μg/g)	450	448	441	473	453	456	400	472	448	477
2σ	7	8	7	4	8	9	16	6	6	10
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	3.2	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit A/B pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

Table F.29. SIMS Analyses of Glass Inclusions and Glass Selvages

n	61	62	63	64	65	66	67	68	69	70
SIMS	**sims-l87**	**sims-l80**	**sims-l81**	**sims-l93**	**sims-l94**	**sims-l85**	**sims-l88**	**sims-l82**	**sims-l83**	**sims-l84**
EMS	**S612-Px18-s7**	**S612-Px26-s1**	**S612-Px26-s2**	**S612-Pl21-sp1**	**S612-Pl21-sp2**	**S612-Px7-s9**	**S612-Px18-s8**	**S612-Px26-s3**	**S612-Px26-s4**	**S612-Px26-s5**
Type	**incl**	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**
Li (μg/g)	30.5	10.2	33.8	22.5	24.8	25.7	21.2	12.4	2.9	23.1
2σ	0.4	1.2	1.4	0.6	0.4	0.6	0.4	0.2	0.1	0.5
Be (μg/g)	1.63	0.73	1.59	2.22	2.21	2.03	0.57	1.27	0.12	2.12
2σ	0.12	0.07	0.08	0.14	0.07	0.10	0.09	0.07	0.03	0.14
B (μg/g)	9.8	3.5	8.5	15.3	20.3	20.4	0.1	3.0	0.2	14.2
2σ	0.2	0.5	0.3	0.7	0.5	0.4	0.0	0.2	0.1	0.4
Mg (μg/g)	NA	NA	NA	3231	1618	NA	NA	NA	NA	NA
2σ	NA	NA	NA	37	20	NA	NA	NA	NA	NA
Sr (μg/g)	179	96.0	193	65.8	49.1	49.8	471	375	16.3	38.6
2σ	5	12.9	5	7.8	3.2	2.1	9	4	1.7	2.3
Ba (μg/g)	417	175	388	623	418	461	85	172	0.6	602
2σ	7	26	7	12	9	14	4	4	0.3	19
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

n	71	72	73	74	75	76	77	78	79	80
SIMS	**sims-l90**	**sims-l91**	**sims-l89**	**sims-l92**	**sims-l26**	**sims-l27**	**sims-l28**	**sims-l29**	**sims-l31**	**sims-l33**
EMS	**S611A-Px10-s12**	**S611A-Px10-s13**	**S611A-Px8-s10**	**S611A-Px10**	**S59C-Pl1-s27**	**S59C-Pl1-s28**	**S59C-Pl1**	**S59C-Pl2**	**S59C-Pl3-s29**	**S59C-Pl4**
Type	**incl**	**incl**	**selvage**	**selvage**	**incl**	**incl**	**incl**	**incl**	**incl**	**incl**
Li (μg/g)	2.01	26.8	29.2	24	28.8	13.3	27.9	31.8	30.3	28.4
2σ	0.12	0.6	0.3	1	0.4	0.2	0.4	0.5	0.4	0.5
Be (μg/g)	0.08	1.56	2.10	2.08	2.08	1.88	2.02	1.84	1.85	1.94
2σ	0.02	0.14	0.11	0.13	0.10	0.19	0.08	0.15	0.06	0.07
B (μg/g)	0.12	8.9	19.7	12.2	20.1	6.41	20.3	20.1	26.0	18.4
2σ	0.05	0.3	0.5	0.2	0.4	0.32	0.5	0.5	0.5	0.5
Mg (μg/g)	NA	NA	NA	NA	1512	559	1539	1633	1734	1341
2σ	NA	NA	NA	NA	41	21	31	88	30	16.2
Sr (μg/g)	0.44	159	54	113	49.4	276	46.7	65.3	49.3	39.5
2σ	0.17	5	1	3	2.0	5	1.2	2.7	2.7	0.9
Ba (μg/g)	0.28	394	443	542	439	284	423	396	425	457
2σ	0.30	11	5	9	7	9	8	8	8	7
δ^{11}B (‰)	NA	−1.2	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	3.7	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	4.5	NA	NA	4.6	4.8	4.3
2σ	NA	NA	NA	NA	0.1	NA	NA	0.1	0.2	0.1

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit B/C pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

Table F.30. SIMS Analyses of Glass Inclusions and Glass Selvages

n	81	82	83	84	85	86	87	88	89	90
SIMS	**sims-l30**	**sims-l32**	**sims-l34**	**sims-sm32**	**sims-sm34**	**sims-sm33**	**sims-sm35**	**sims-sm36**	**sims-sm48**	**sims-sm49**
EMS	**S59C-Pl2**	**S59C-Pl3-s70**	**S59C-Pl4-s71**	**S59D-Px1-m47**	**S59D-Px10-m52**	**S59D-Px1**	**S59D-Px10-m54**	**S59D-Px10-m55**	**S59D-Px4-sk**	**S59D-Px7-k1**
Type	**selvage**	**selvage**	**selvage**	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**selvage**	**selvage**
Li (μg/g)	24.5	16.8	19.9	29.8	30.3	8.9	23.5	25.8	24.6	25.1
2σ	0.3	0.2	0.2	0.2	0.4	0.2	0.3	0.3	0.4	2.5
Be (μg/g)	2.16	2.16	2.17	2.60	1.89	1.57	2.08	2.01	2.10	2.18
2σ	0.12	0.10	0.14	0.11	0.09	0.09	0.07	0.09	0.10	0.15
B (μg/g)	20.9	20.2	20.7	22.0	20.9	0.3	20.1	19.9	20.0	21.0
2σ	0.7	0.4	0.6	0.6	0.6	0.1	0.4	0.5	0.5	1.1
Mg (μg/g)	1658	1594	1619	NA	NA	NA	NA	NA	NA	NA
2σ	12	9	149	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	51.9	51.6	51.6	50.9	53.5	414	54.6	55.7	54.4	67.5
2σ	2.3	2.3	1.8	0.9	0.9	3	0.8	0.8	1.1	4.3
Ba (μg/g)	431	443	449	447	454	226	482	504	469	627
2σ	8	11	7	6	5.8	5	4	5	4	4
δ^{11}B (‰)	NA	NA	NA	+4.0	+5.0	NA	NA	NA	NA	NA
2σ	NA	NA	NA	1.6	2.1	NA	NA	NA	NA	NA
H_2O (wt. %)	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
n	91	92	93	94	95	96	97	98	99	100
SIMS	**sims-P2**	**sims-P3**	**sims-P1**	**sims-P1**	**sims-P2**	**sims-P2**	**sims-P3**	**sims-P1**	**sims-P2**	**sims-P1**
EMS	**S50A-Pl1-2**	**S50A-Pl6-p3**	**S50A-Pl1-1**	**S50A-Pl6-p1**	**S50A-Pl6-p2**	**S50B-Pl1-p2**	**S50B-Pl1-p3**	**S50B-Pl2-p1**	**S50B-Pl2-p2**	**S50B-Pl4-p1**
Type	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**incl**	**incl**	**incl**	**incl**	**selvage**
Li (μg/g)	36.0	10.5	32.1	27.1	7.7	30.6	32.2	20.5	7.3	28.6
2σ	0.1	0.4	0.5	0.3	0.2	0.5	0.2	0.1	0.1	0.4
Be (μg/g)	1.92	0.93	2.13	2.10	1.37	1.78	1.67	1.76	1.25	2.10
2σ	0.07	0.08	0.05	0.09	0.09	0.04	0.05	0.03	0.09	0.08
B (μg/g)	23.5	4.0	21.4	20.5	0.22	19.6	21.3	20.8	0.25	20.2
2σ	0.4	0.3	0.4	0.5	0.06	0.3	0.2	0.4	0.04	0.3
Mg (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Th (μg/g)	NA	2.24	NA	14.3	0.06	14.3	15.7	17.9	0.05	16.1
2σ	NA	0.66	NA	1.3	0.10	0.6	0.7	1.1	0.09	0.8
U (μg/g)	NA	1.25	NA	4.69	NA	4.79	5.39	5.84	NA	6.04
2σ	NA	0.55	NA	0.55	NA	0.68	0.36	0.58	NA	0.68
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit C/D pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

Table F.31. SIMS Analyses of Glass Inclusions and Glass Selvages

n	101	102	103	104	105	106	107	108	109	110
SIMS	**sims-P3**	**sims-P1**	**sims-l3**	**sims-l5**	**sims-l1**	**sims-l2**	**sims-l4**	**sims -sm9**	**sims-sm14**	**sims-sm15**
EMS	**S50B-Pl-2-p3**	**S50B-Pl3-p1**	**S50C-Pl3**	**S50C-Pl4**	**S50C-Pl2-s60**	**S50C-Pl2**	**S50C-Pl3**	**S50D-Px8-m9**	**S50D-Px10-m14**	**S50D-Px10-m15**
Type	**selvage**	**selvage**	**incl**	**incl**	**selvage**	**selvage**	**selvage**	**incl**	**incl**	**incl**
Li (μg/g)	31.1	27.5	32.5	31.9	30.3	28.9	30.8	31.1	32.3	30.8
2σ	0.3	0.5	0.5	0.6	0.45	0.3	0.3	0.3	0.3	0.4
Be (μg/g)	2.10	2.09	2.15	1.72	2.24	2.21	2.02	2.22	2.07	2.04
2σ	0.10	0.12	0.12	0.09	0.12	0.06	0.06	0.11	0.06	0.05
B (μg/g)	20.8	20.1	25.1	20.5	21.5	21.0	20.9	22.1	21.8	21.5
2σ	0.6	0.5	0.5	0.6	0.4	0.5	0.8	0.5	0.5	0.5
Mg (μg/g)	NA	NA	1618	1885	1619	1617	1560	NA	NA	NA
2σ	NA	NA	13	10	14	19	9	NA	NA	NA
Sr (μg/g)	NA	NA	47.6	55.4	51.1	51.0	50.7	49.6	57.7	56.3
2σ	NA	NA	1.3	1.6	2.4	1.5	1.9	1.3	0.9	0.9
Ba (μg/g)	NA	NA	406	338	448	438	452	461	506	493
2σ	NA	NA	7.6	8.8	10	12	5	3	6	6
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	+8.3	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	1.5	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

n	111	112	113	114	115	116	117	118	119	120
SIMS	**sims-sm10**	**sims-sm11**	**sims-sm12**	**sims-sm13**	**sims-sm16**	**sims-m71**	**sims-m72**	**sims-m69**	**sims-m70**	**sims-m73**
EMS	**S50D-Px3-m2**	**S50D-Px3-m3**	**S50D-Px7**	**S50D-Px7**	**S50D-Px10**	**S50m-m71**	**S50m-m72**	**S50m-m69**	**S50m-m70**	**S50m-m73**
Type	**selvage**	**plg**	**selvage**	**selvage**	**selvage**	**glass**	**glass**	**glass**	**glass**	**glass**
Li (μg/g)	29.1	4.30	26.7	26.1	29.9	32.7	31.2	31.1	31.1	30.2
2σ	0.3	0.16	0.3	1.1	0.3	0.4	0.4	0.4	0.4	0.5
Be (μg/g)	2.03	0.16	2.23	1.54	2.12	2.13	2.11	2.03	2.17	2.00
2σ	0.08	0.03	0.08	0.12	0.12	0.18	0.11	0.10	0.12	0.12
B (μg/g)	20.3	1.30	20.4	16.1	20.1	20.7	20.3	20.0	20.8	20.2
2σ	0.3	0.10	0.4	07	0.5	0.4	0.4	0.7	0.4	0.6
Mg (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	50.3	2.68	53.7	39.9	54.1	51.2	51.8	51.0	52.9	52.2
2σ	1.0	0.26	1.4	2.1	0.9	1.5	1.2	1.2	0.6	0.8
Ba (μg/g)	483	22.2	472	346	465	454	447	465	456	494
2σ	4	1.8	4	15	5	7	7	4	4	10
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit D pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

Table F.32. SIMS Analyses of Glass Inclusions and Glass Selvages

n	121	122	123	124	125	126
SIMS	**sims-m74**	**sims-sm37**	**sims-sm38**	**sims-sm39**	**sims-sm40**	**sims-sm41**
EMS	**S50m-m74**	**S511B-Pl17-sp1**	**S511B-Pl17-sp2**	**S511A-Px1-s20**	**S511A-Px1-s21**	**S511A-Px1-s22**
Type	**glass**	**selvage**	**selvage**	**selvage**	**melt**	**melt**
Li (μg/g)	27.7	26.4	22.0	7.7	22.5	26.3
2σ	0.5	0.3	0.4	0.4	0.4	0.3
Be (μg/g)	2.04	2.13	2.11	1.36	1.97	2.04
2σ	0.08	0.08	0.14	0.08	0.10	0.08
B (μg/g)	19.8	16.5	19.2	4.54	16.8	16.9
2σ	0.6	0.6	0.5	0.54	0.4	0.4
Mg (μg/g)	NA	3429	2104	NA	NA	NA
2σ	NA	18	19	NA	NA	NA
Sr (μg/g)	72.9	74.7	62.0	400	70.4	65.5
2σ	5.6	1.7	1.7	10	2.6	1.9
Ba (μg/g)	458	496	405	257	470	465
2σ	4	9	12	17	6	8.9
δ^{11}B (‰)	NA	NA	+4.3	NA	NA	NA
2σ	NA	NA	1.7	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in pl and px phenocrysts of Minoan Unit D pumice clasts. Abbreviations: NA - not analyzed; ND - not detected.

G. Appendix – Glass Analyses II – Minoan Scoria Clasts

G.1. Scoria Clasts: SAN53 – SAN56 – SAN60

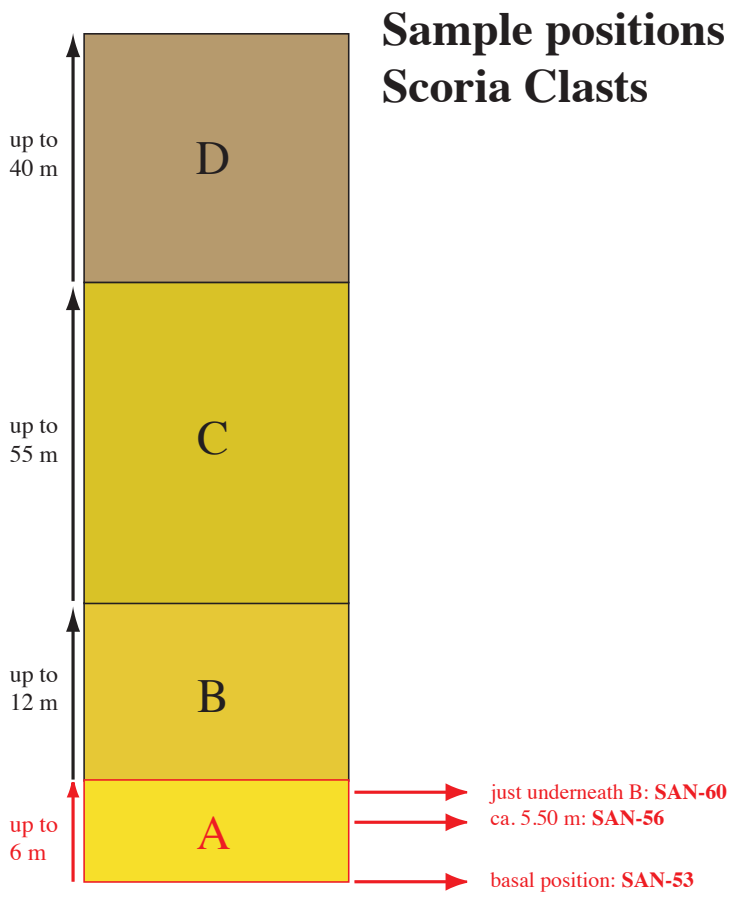


Fig. G.1. Positions of scoria clast samples taken from Minoan Unit A

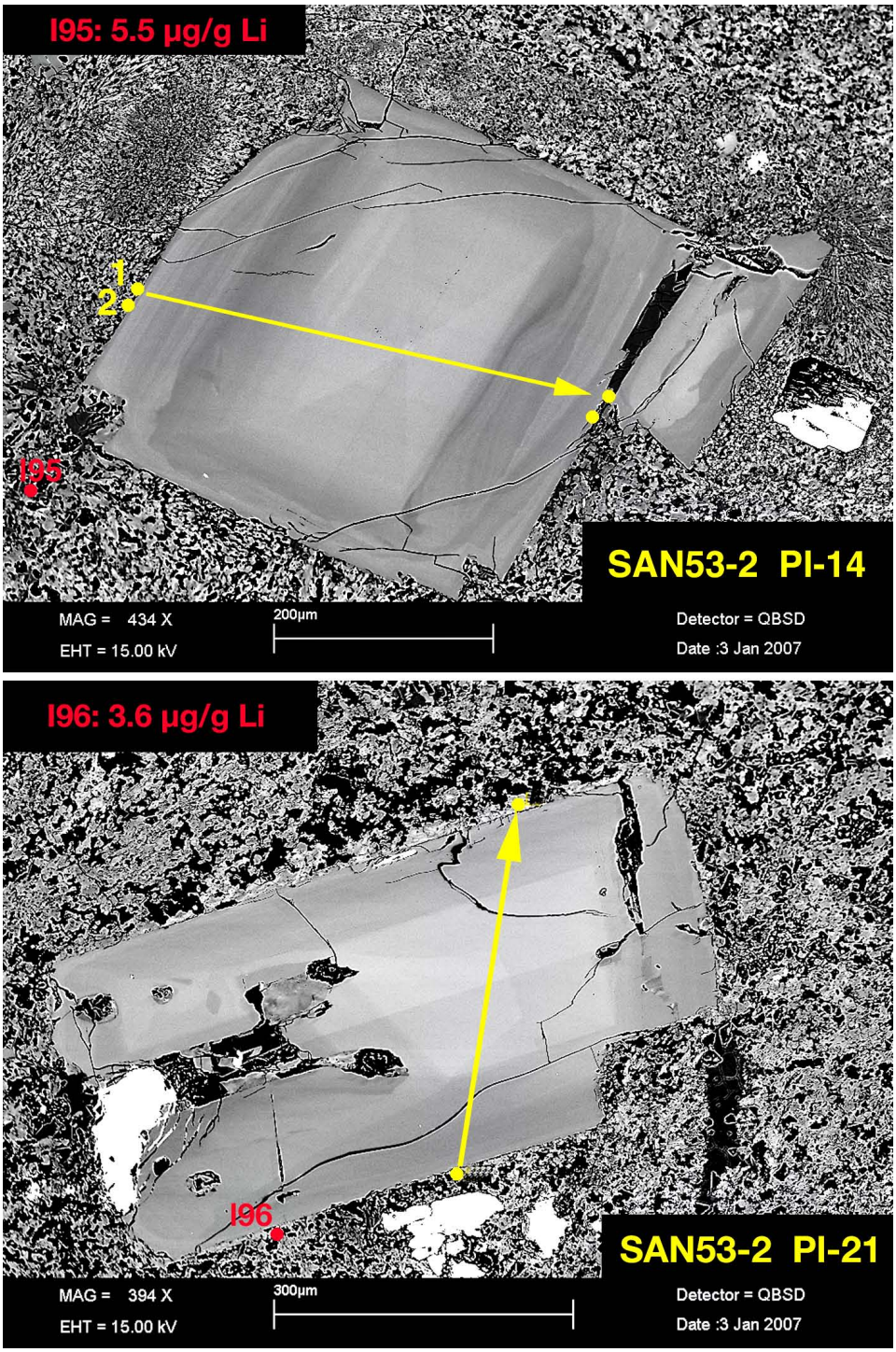


Fig. G.2. Minoan A – Scoria clast – SAN53-2: Plagioclase crystals Pl-14 and Pl-21. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

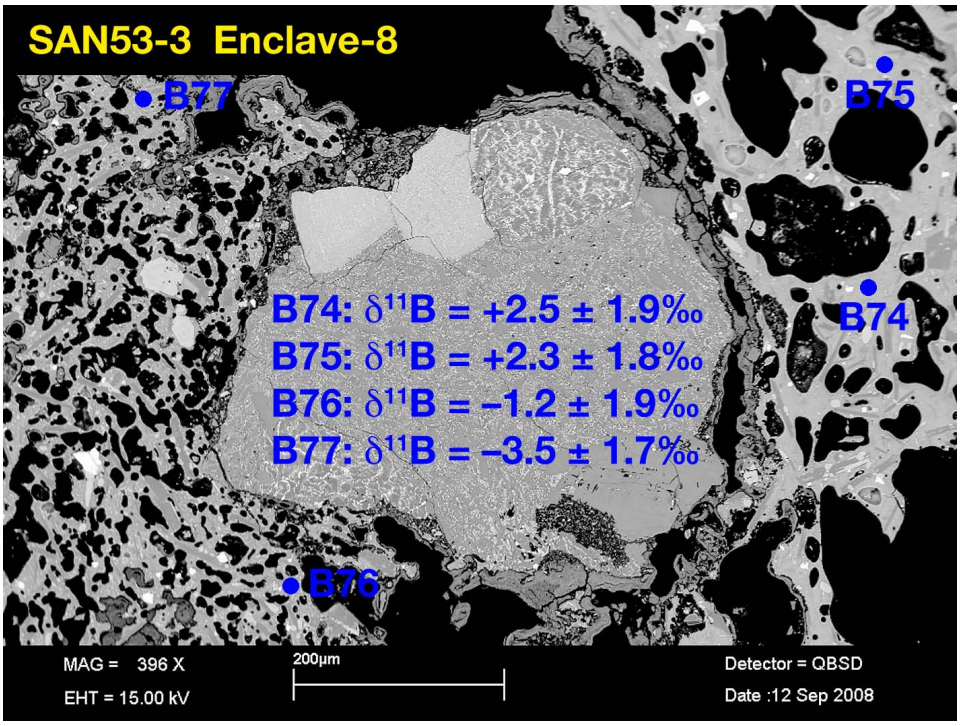


Fig. G.3. Minoan A – Scoria clast – SAN53-3: Enclave-8. Blue points mark locations of SIMS analyses.

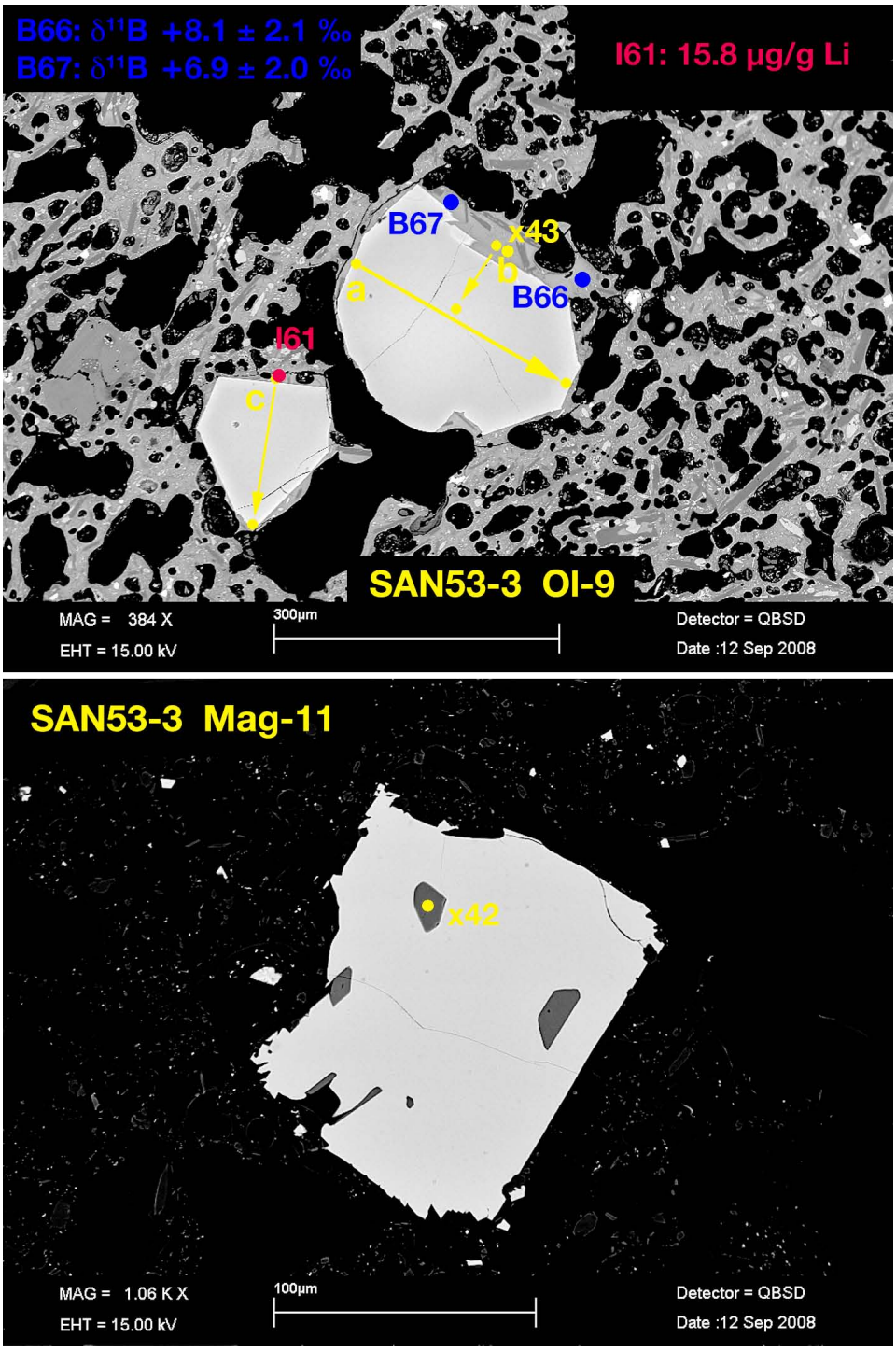


Fig. G.4. Minoan A – Scoria clast – SAN53-3: Ol-9 and Mag-11. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

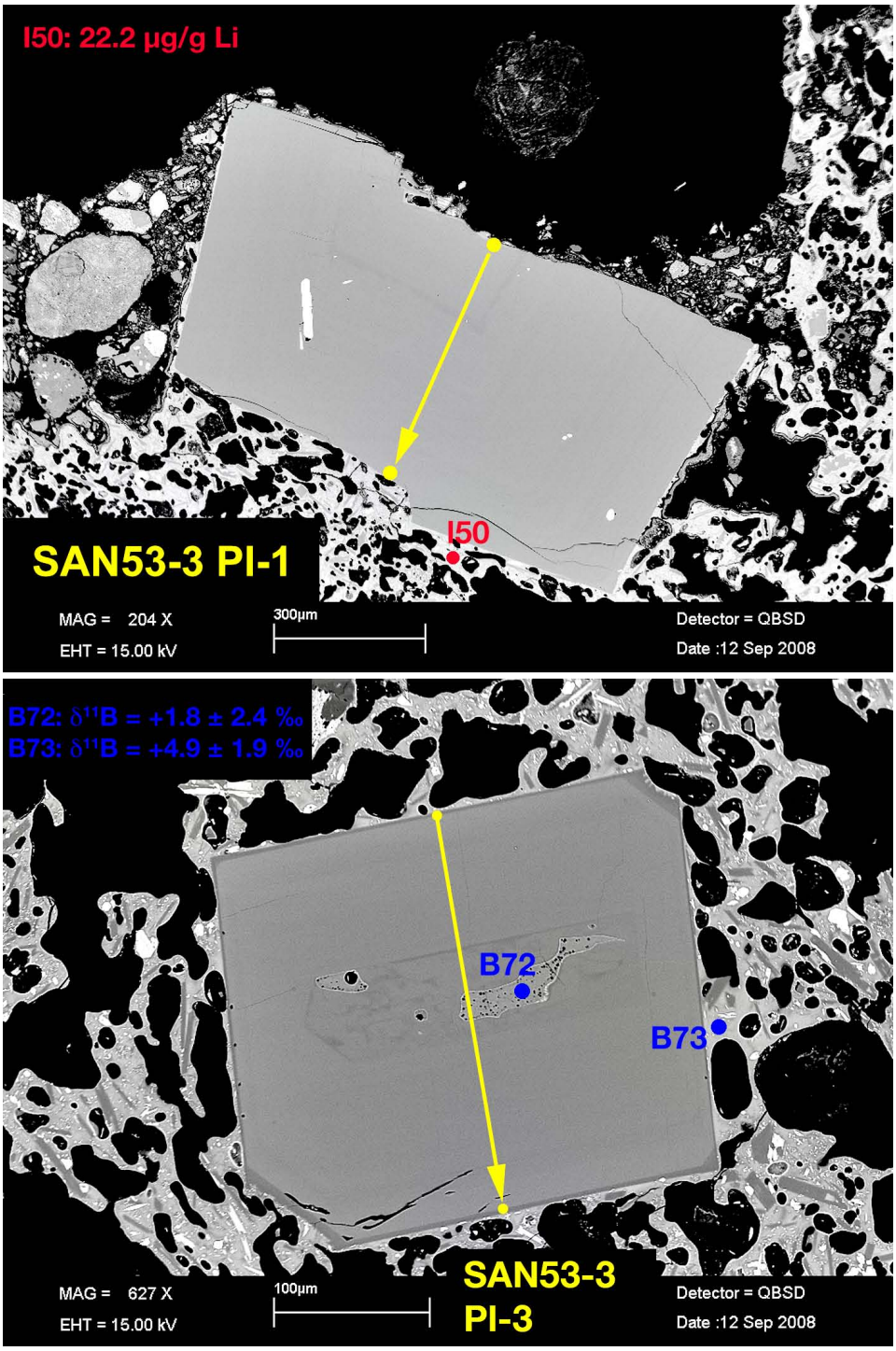


Fig. G.5. Minoan A – Scoria clast – SAN53-3: Plagioclase crystals Pl-1 and Pl-3. Red and blue points mark locations of SIMS analyses.

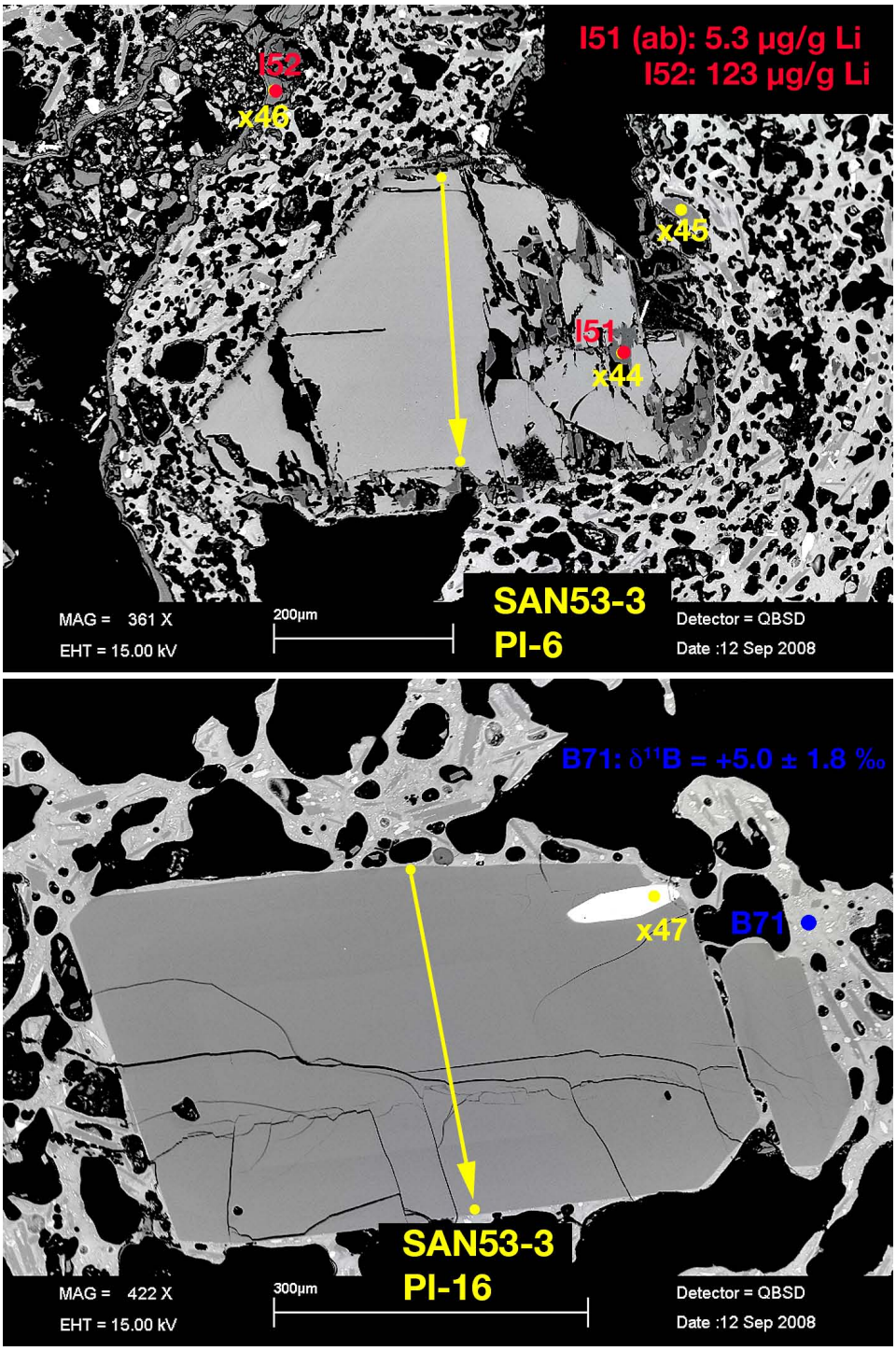


Fig. G.6. Minoan A – Scoria clast – SAN53-3: Plagioclase crystals Pl-6 and Pl-16. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

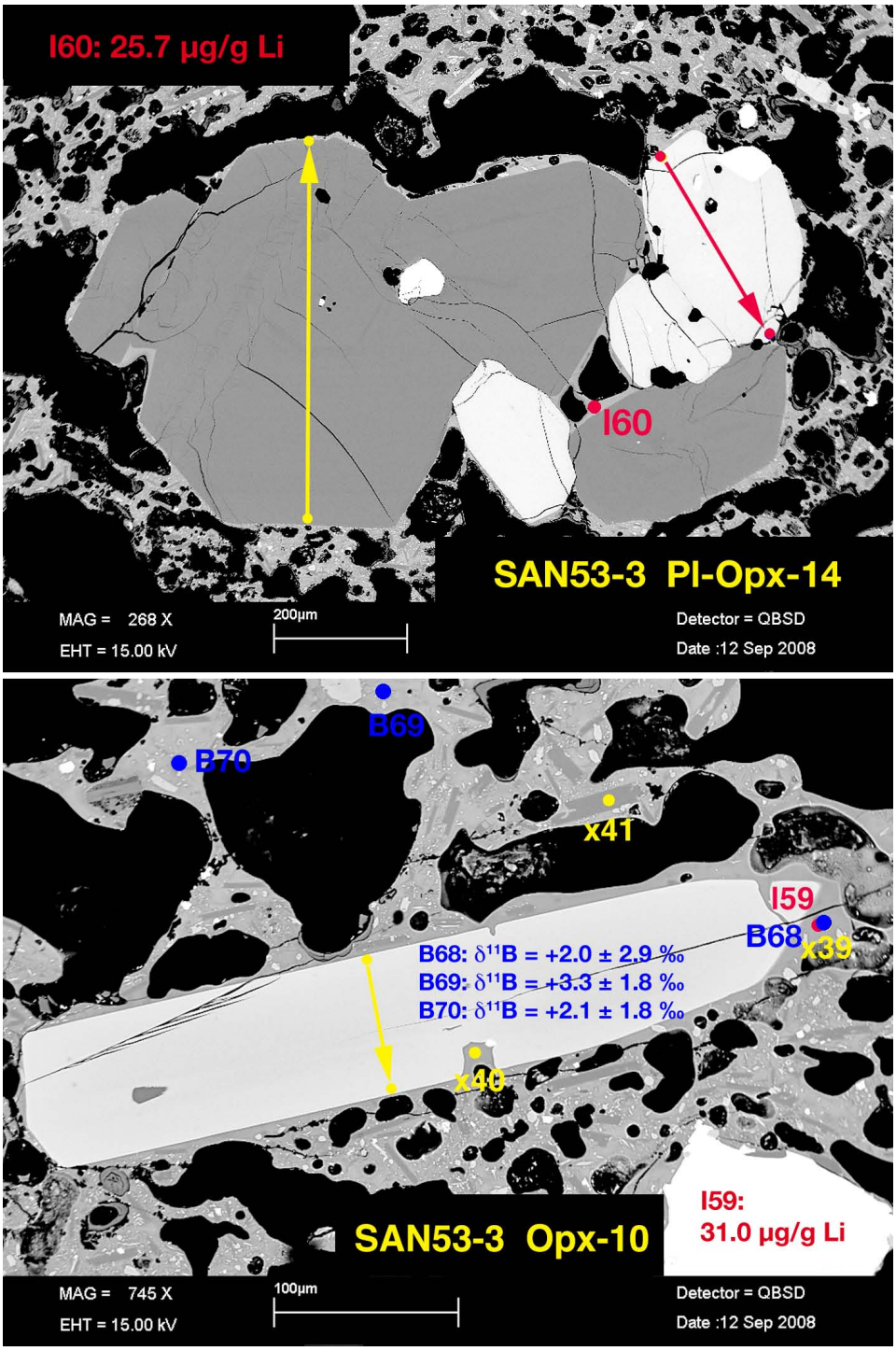


Fig. G.7. Minoan A – Scoria clast – SAN53-3: Plagioclase and pyroxene crystals Pl-Opx-14 and Opx-10. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

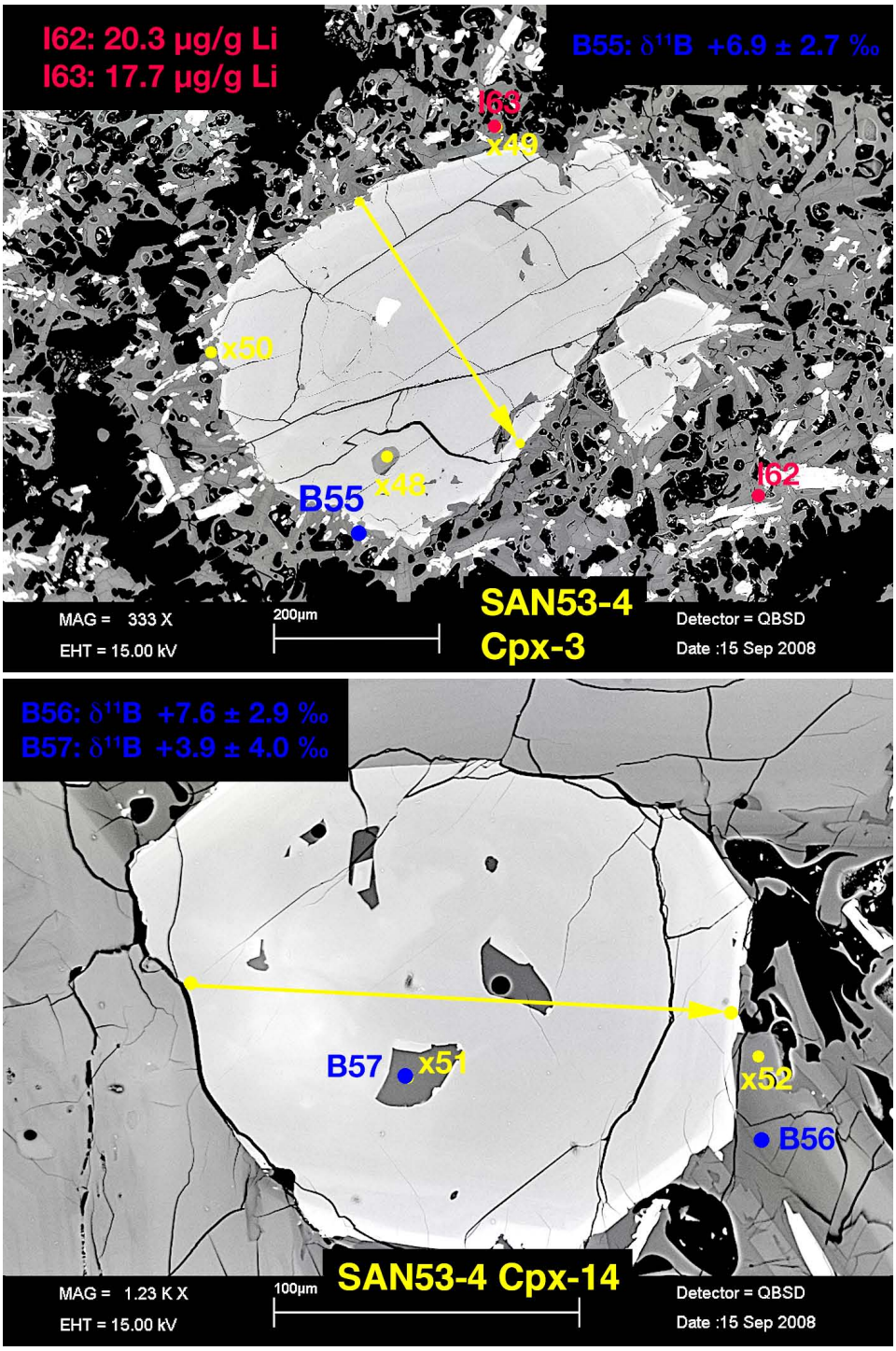


Fig. G.8. Minoan A – Scoria clast – SAN53-4: Pyroxene crystals Cpx-3 and Cpx-14. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

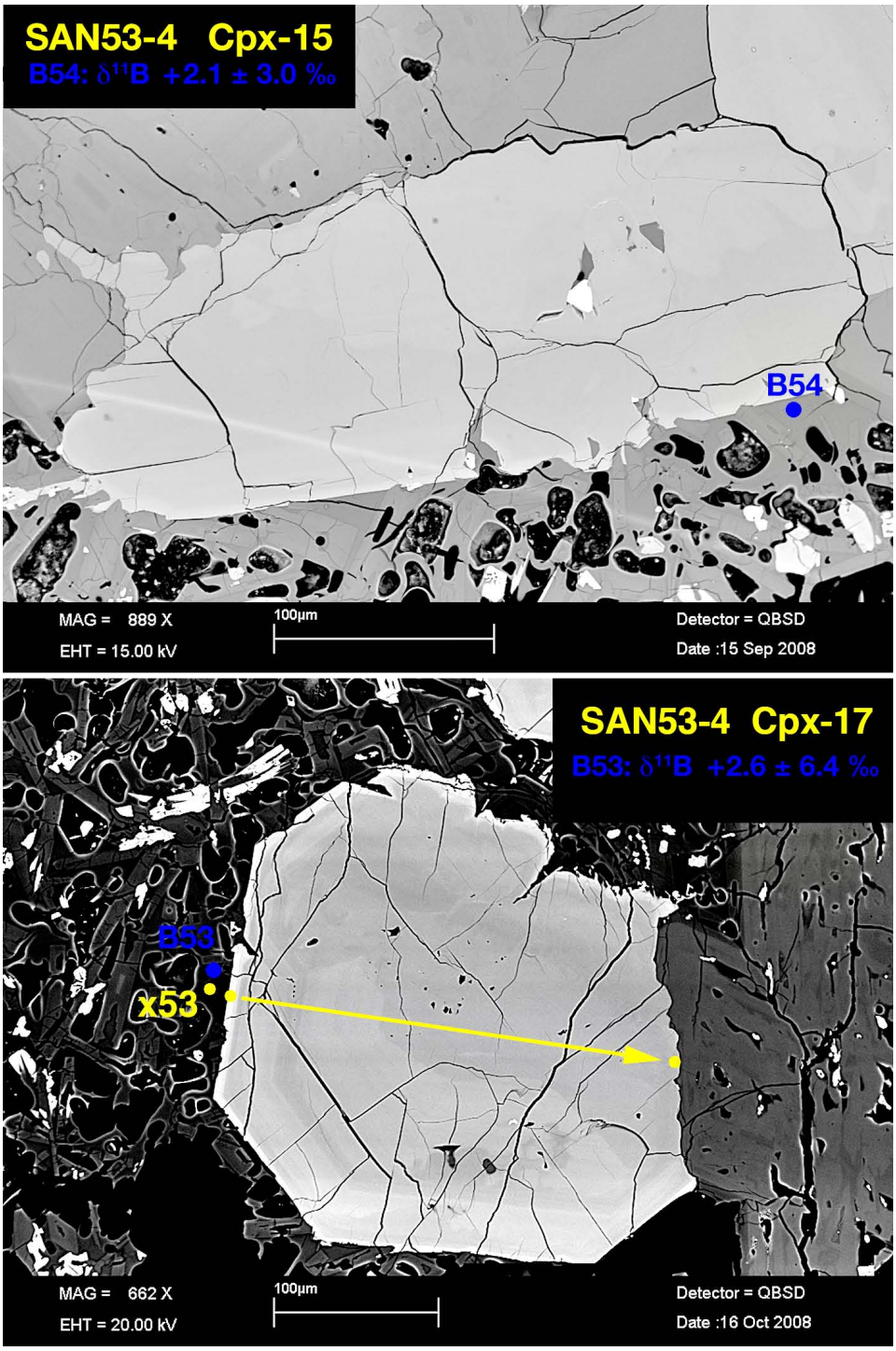


Fig. G.9. Minoan A – Scoria clast – SAN53-4: Pyroxene crystals Cpx-15 and Cpx-17. Yellow points mark locations of EPMA analyses; blue points mark locations of SIMS analyses.

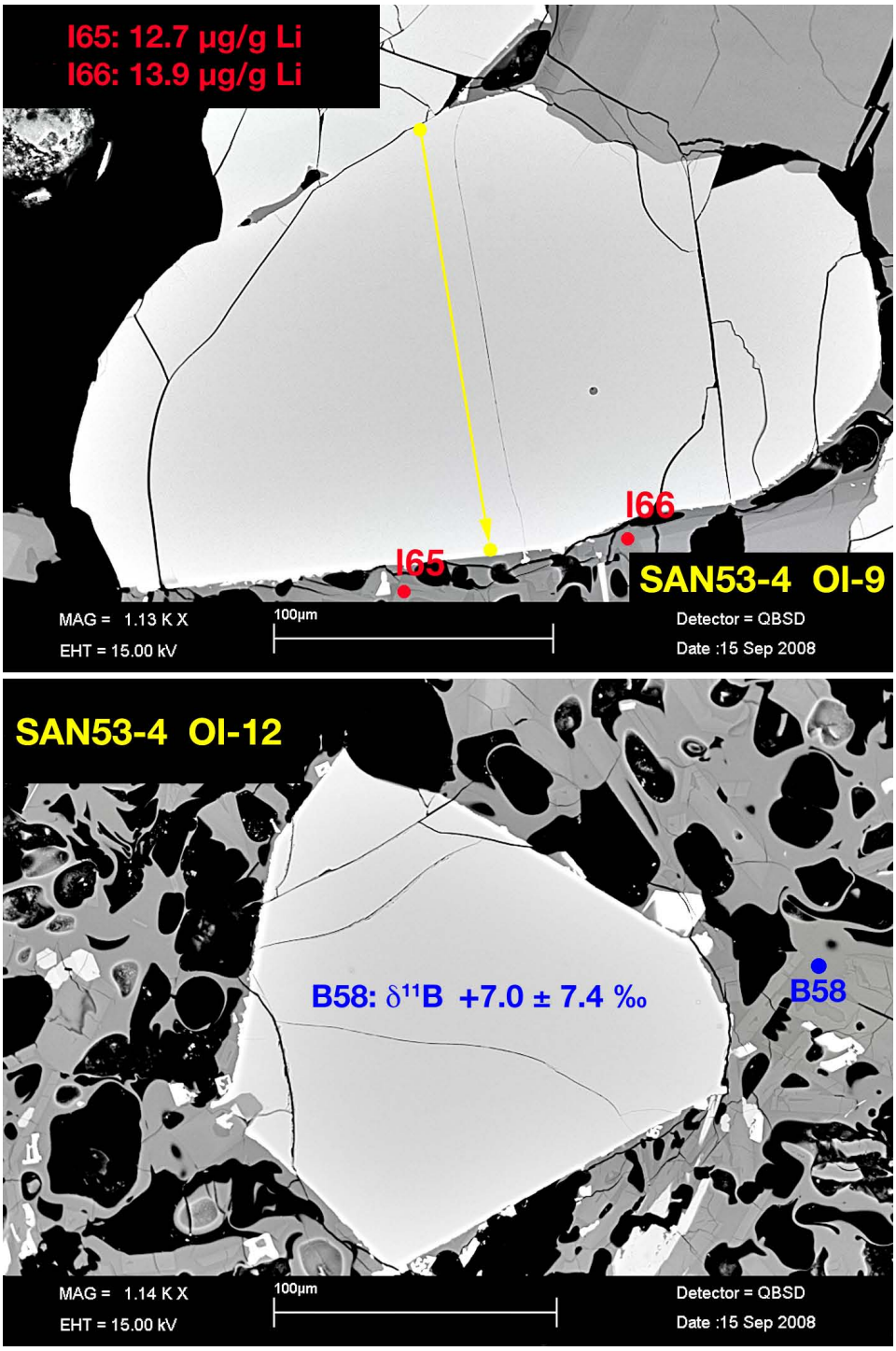


Fig. G.10. Minoan A – Scoria clast – SAN53-4: Olivine crystals Ol-9 and Ol-12. Red and blue points mark locations of SIMS analyses.

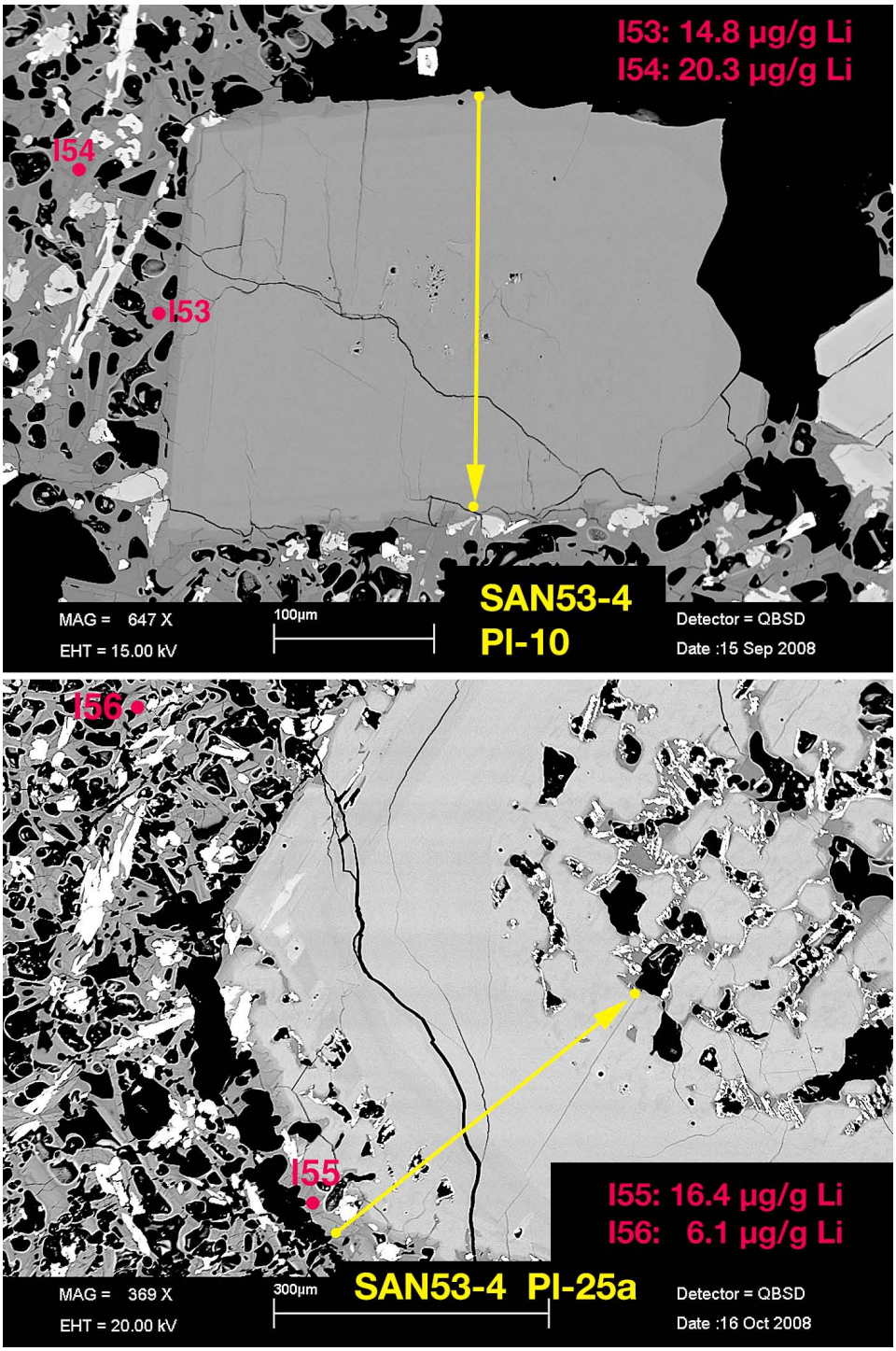


Fig. G.11. Minoan A – Scoria clast – SAN53-4: Plagioclase crystals Pl-10 and Pl-25a. Red points mark locations of SIMS analyses.

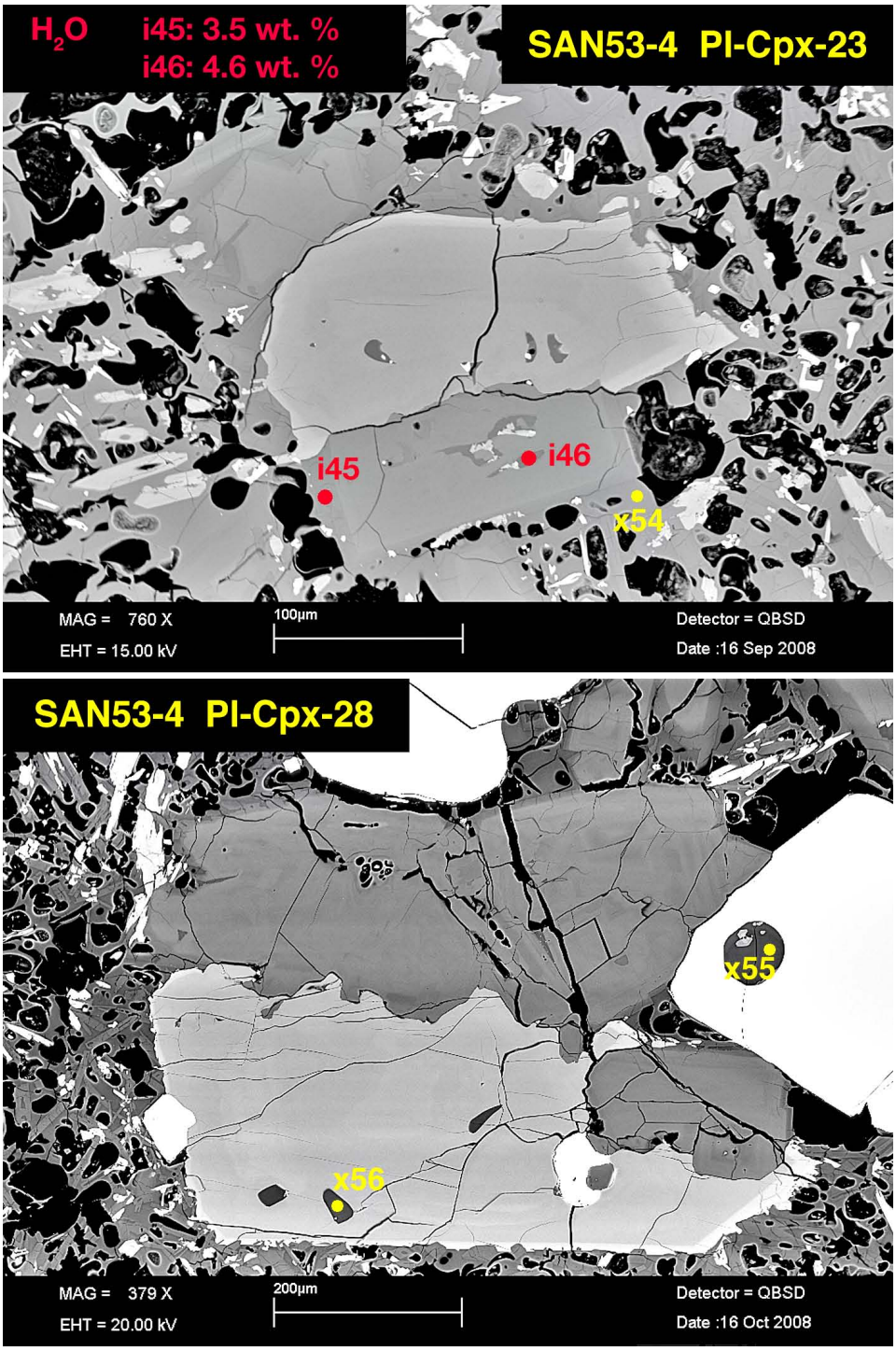


Fig. G.12. Minoan A – Scoria clast – SAN53-4: Plagioclase and pyroxene crystals Pl-Cpx-23 and Pl-Cpx-28. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

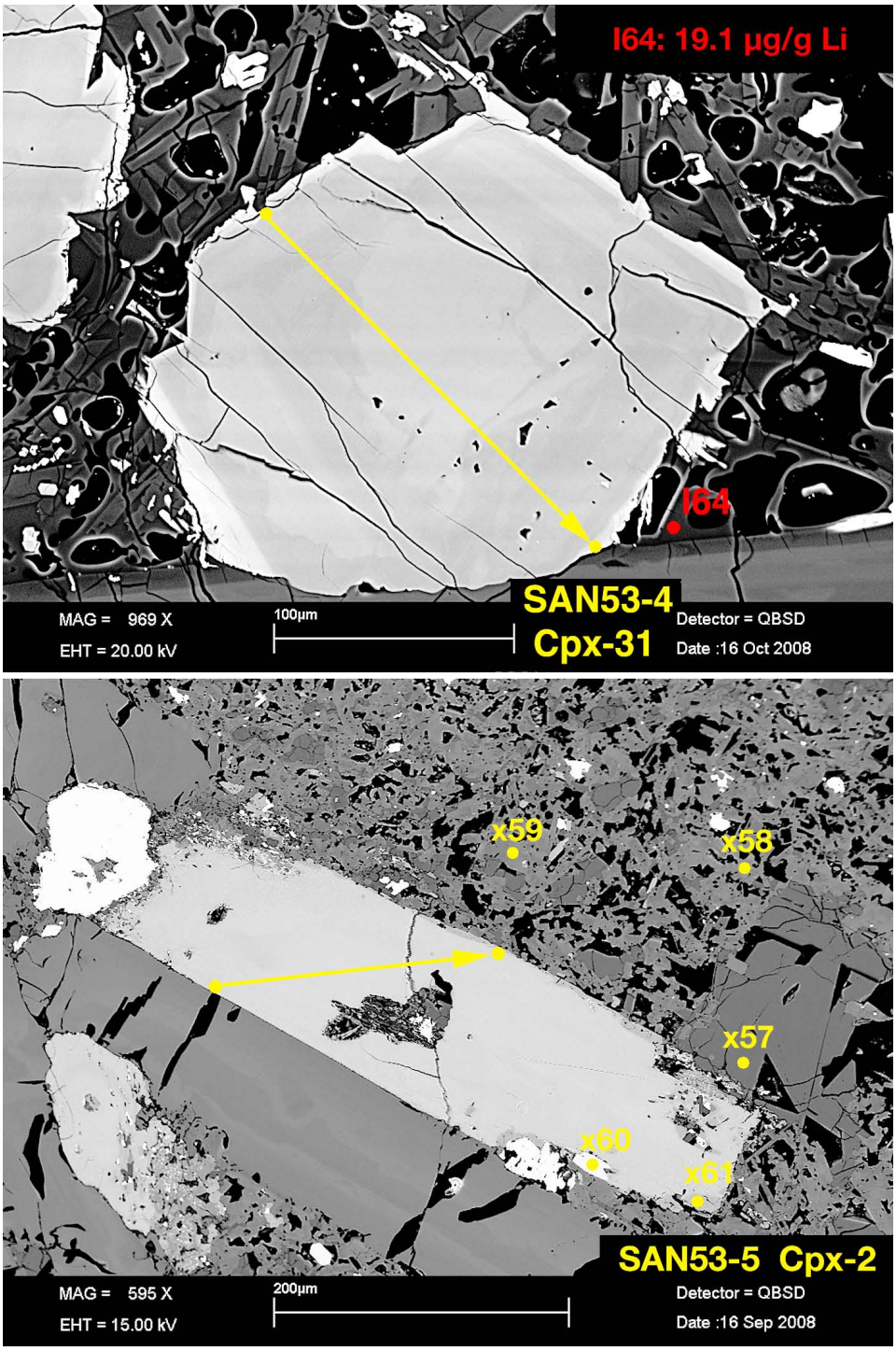


Fig. G.13. Minoan A – Scoria clast – SAN53-4/SAN53-5: Pyroxene crystals Cpx-31 and Cpx-2. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

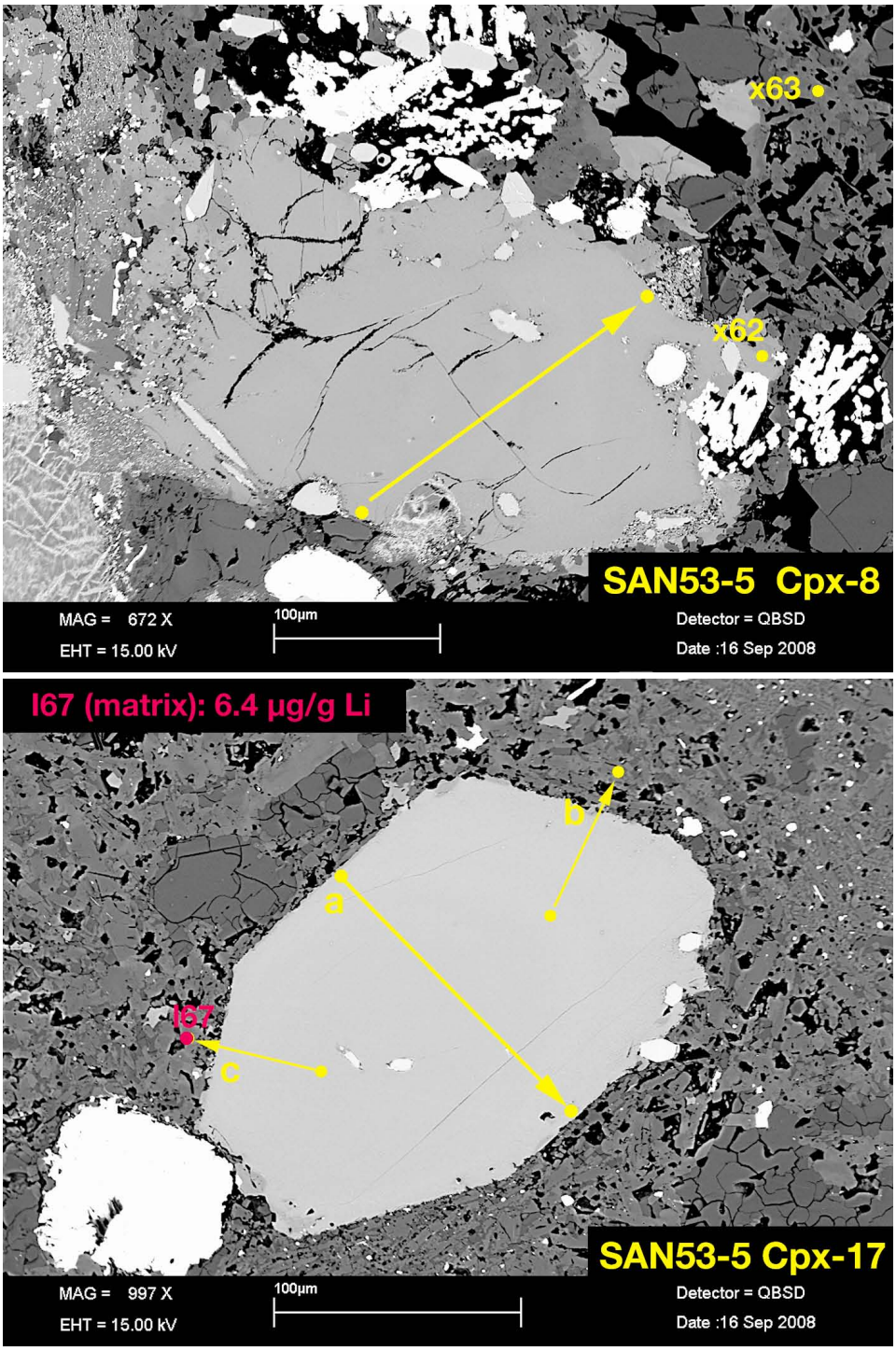


Fig. G.14. Minoan A – Scoria clast – SAN53-5: Pyroxene crystals Cpx-8 and Cpx-17. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

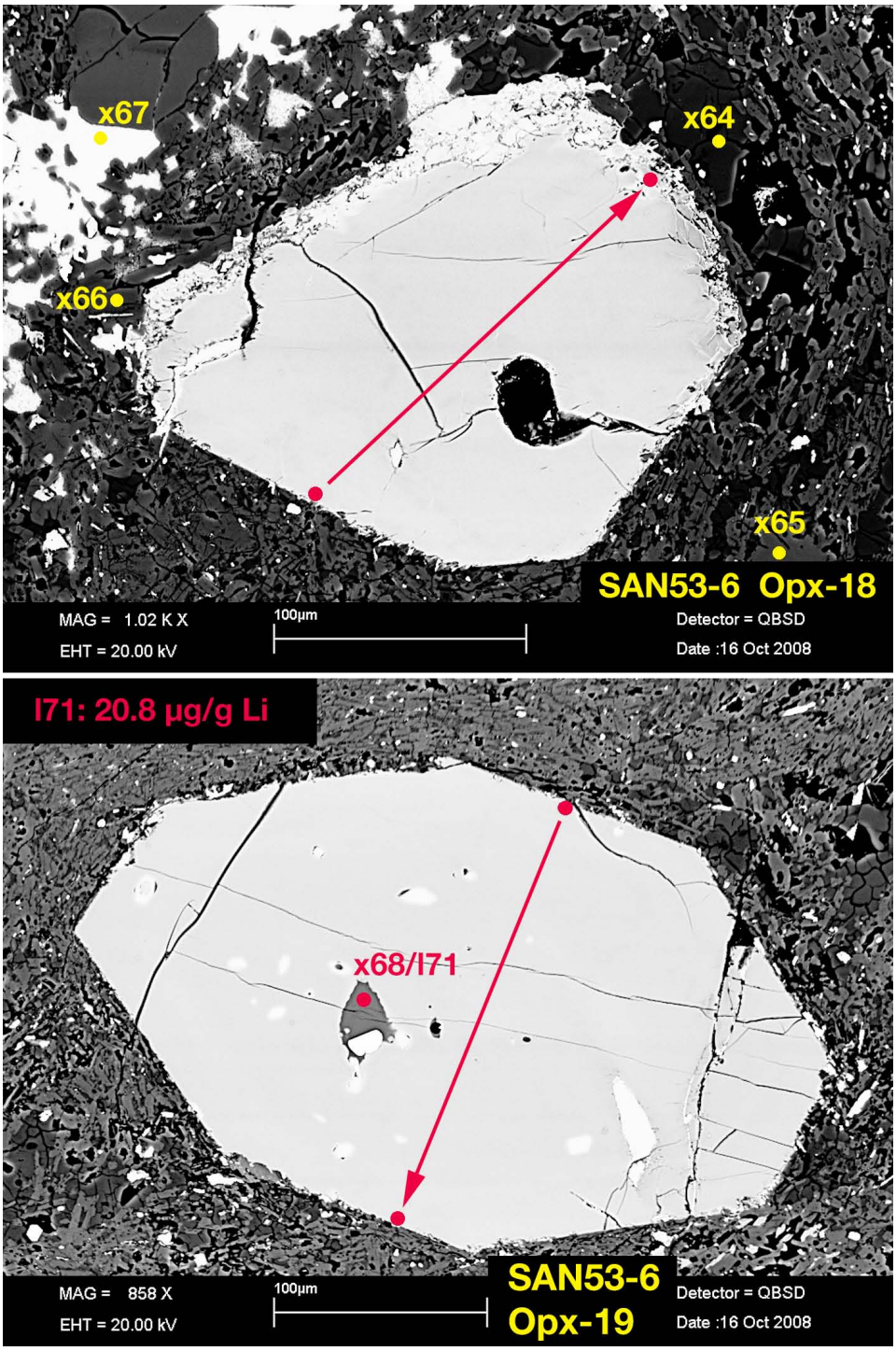


Fig. G.15. Minoan A – Scoria clast – SAN53-6: Pyroxene crystals Opx-18 and Cpx-19. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

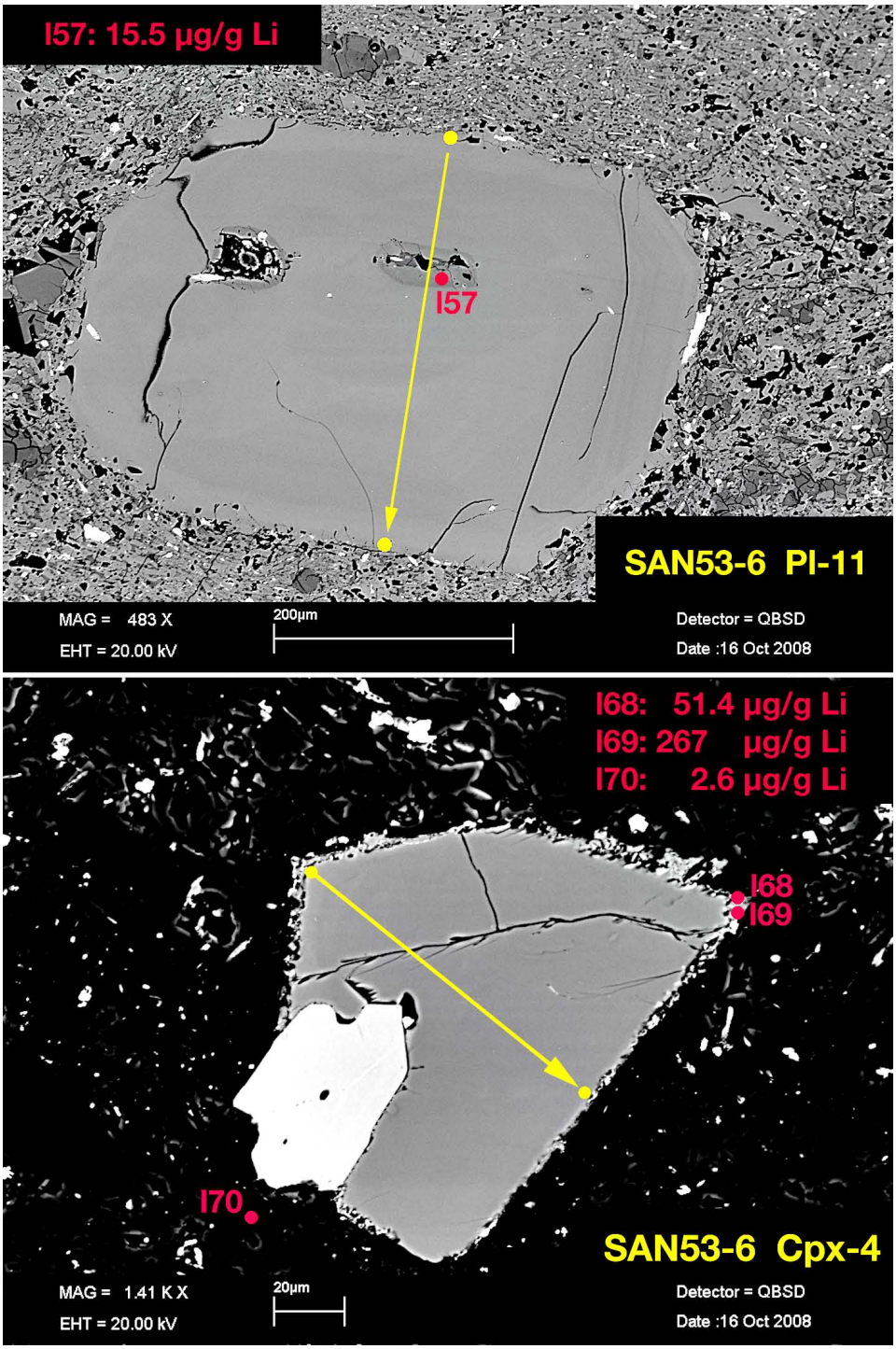


Fig. G.16. Minoan A – Scoria clast – SAN53-6: Plagioclase and pyroxene crystals Pl-11 and Cpx-4. Yellow points mark locations of EPMA analyses; red points mark locations of SIMS analyses.

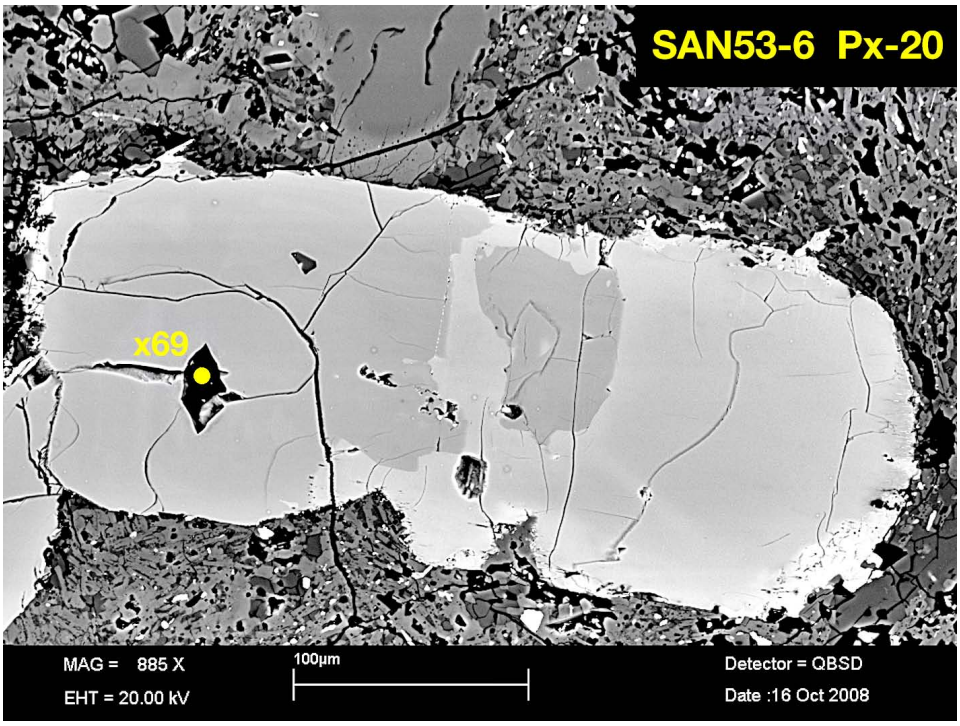


Fig. G.17. Minoan A – Scoria clast – SAN53-6: Pyroxene crystal Px-20. Yellow point marks location of EPMA analysis.

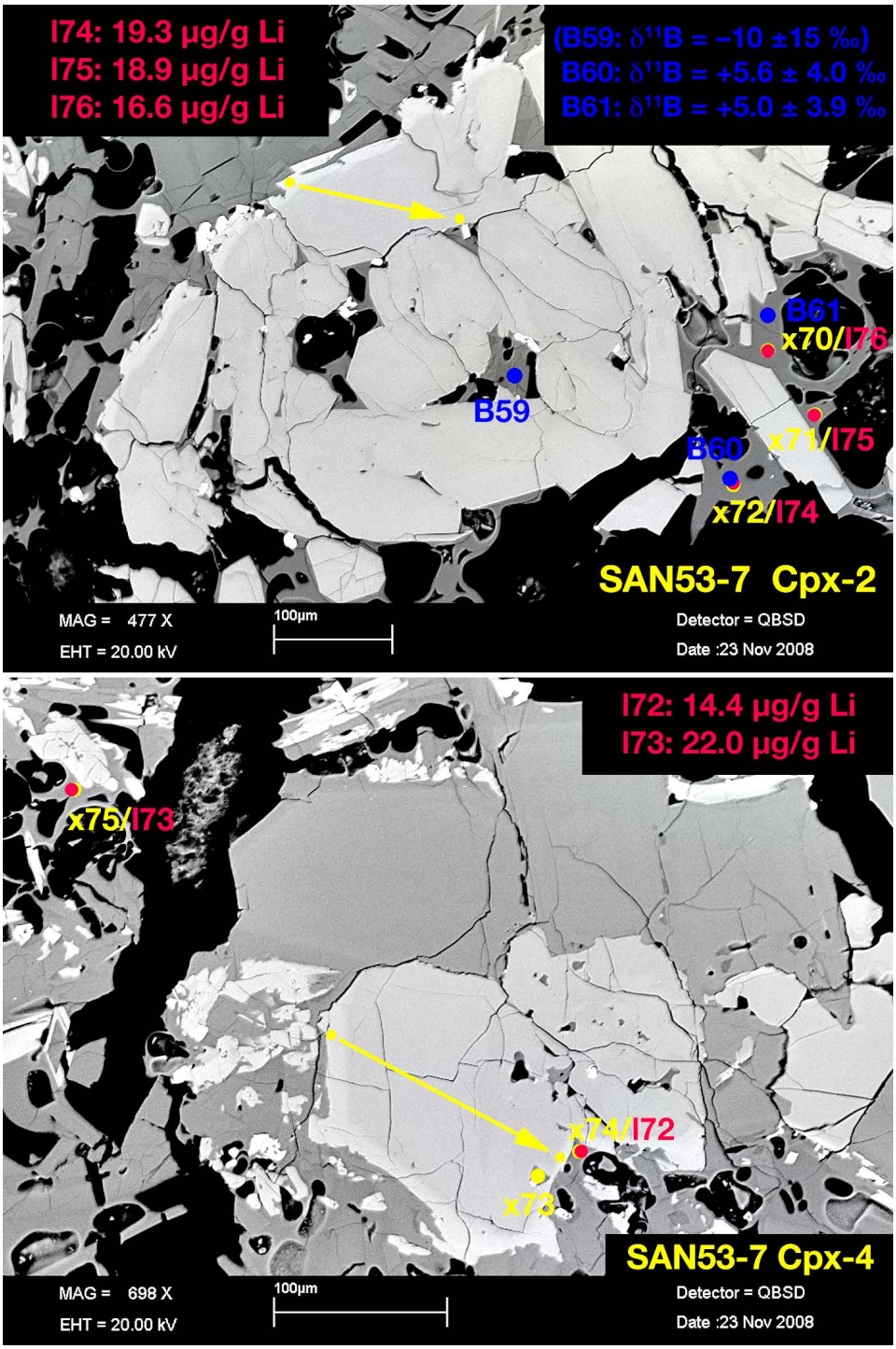


Fig. G.18. Minoan A – Scoria clast – SAN53-7: Pyroxene crystals Cpx-2 and Cpx-4. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

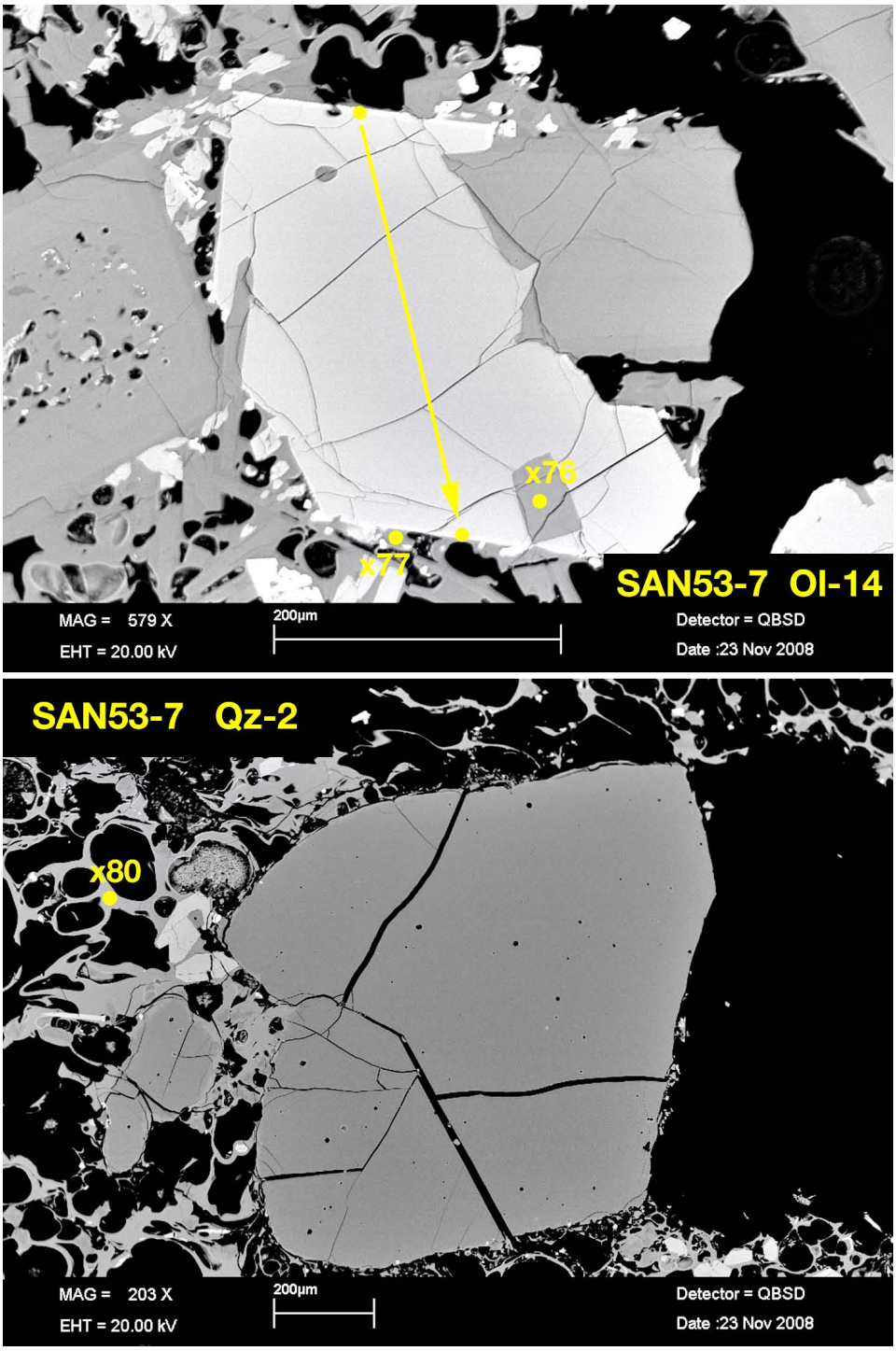


Fig. G.19. Minoan A – Scoria clast – SAN53-7: Olivine and quartz crystals Ol-14 and Qz-2. Yellow points mark locations of EPMA analyses.

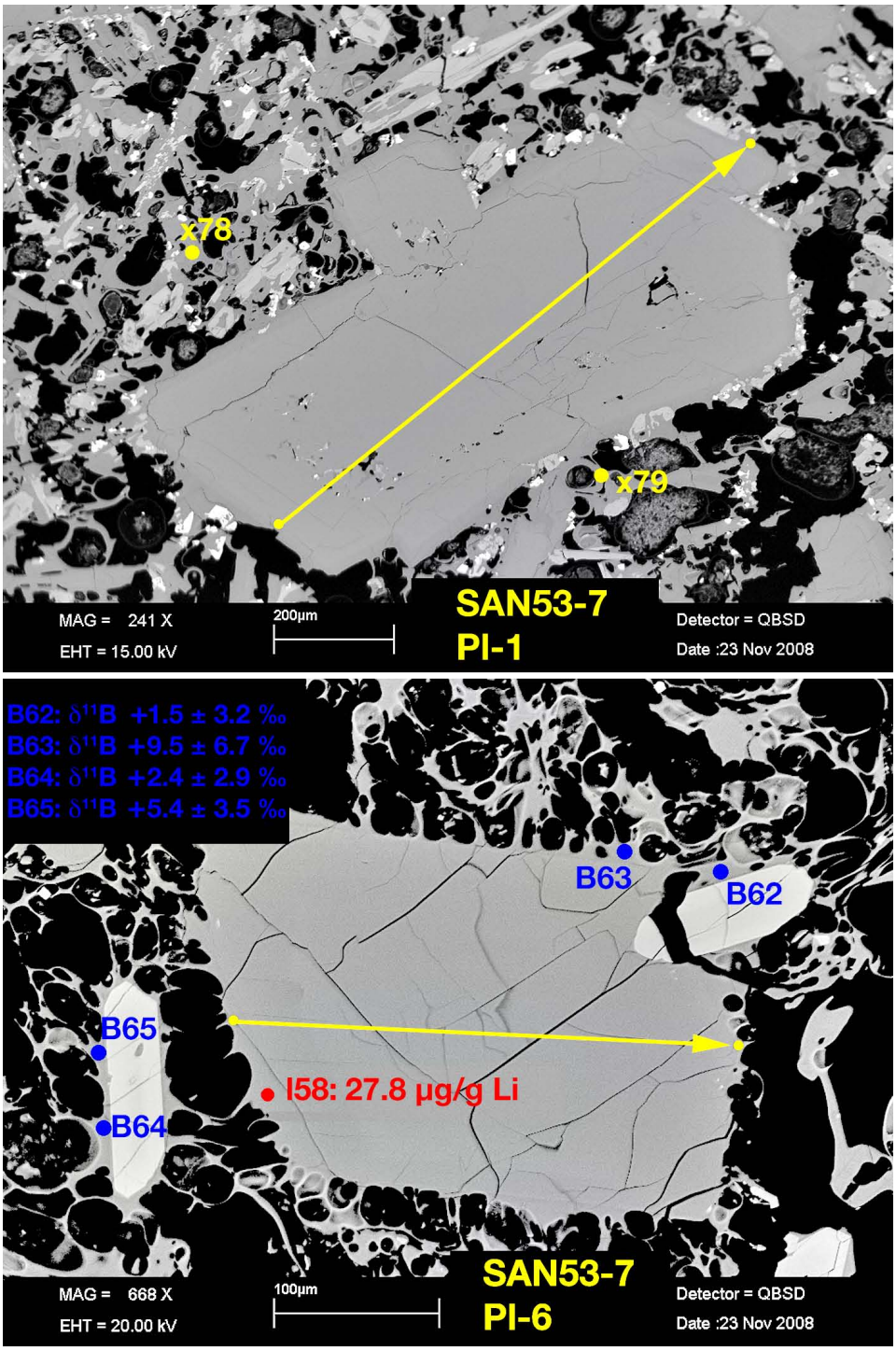


Fig. G.20. Minoan A – Scoria clast – SAN53-7: Plagioclase crystals Pl-1 and Pl-6. Yellow points mark locations of EPMA analyses; red and blue points mark locations of SIMS analyses.

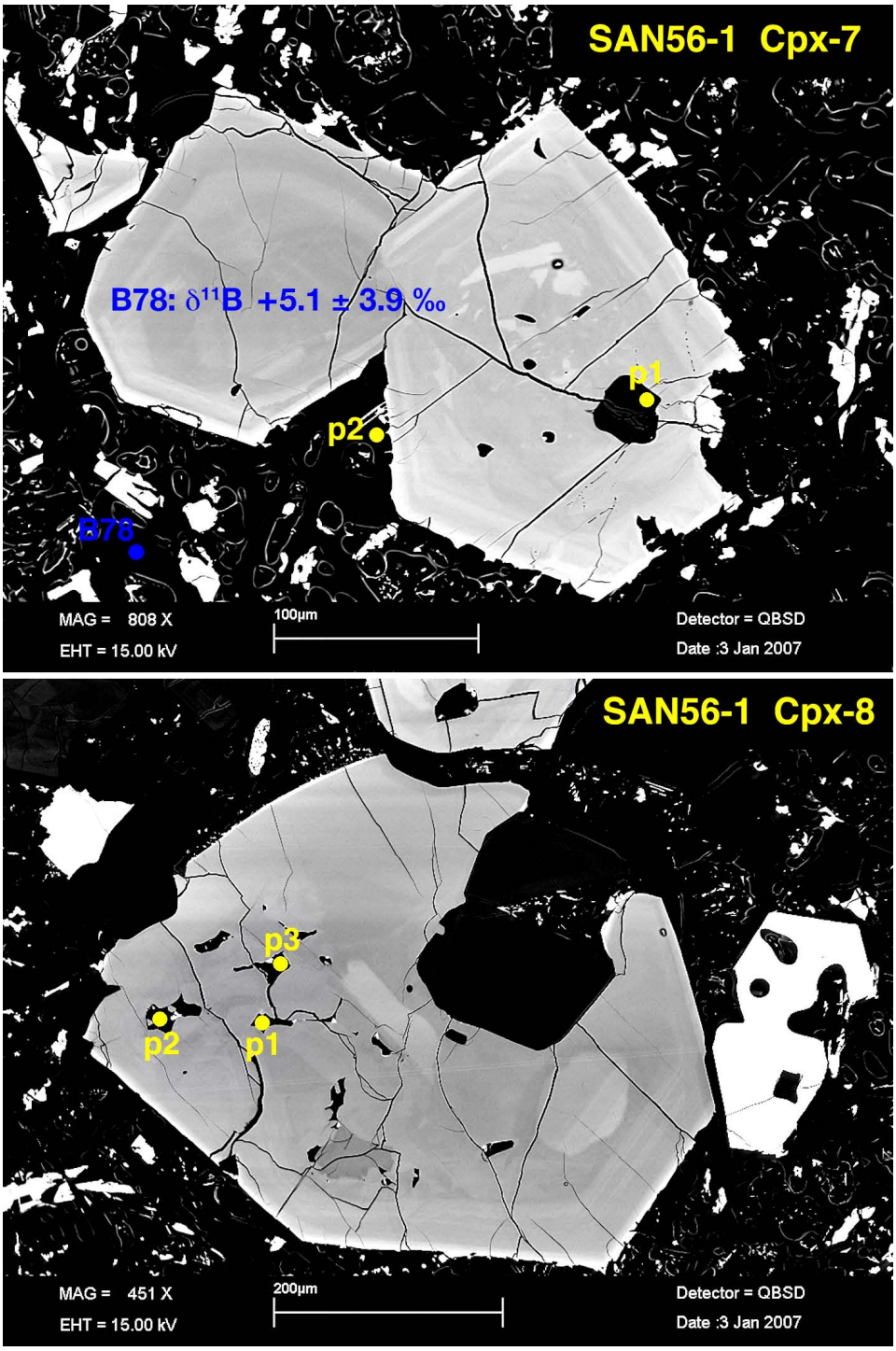


Fig. G.21. Minoan A – Scoria clast – SAN56-1: Pyroxene crystals Cpx-7 and Cpx-8. Yellow points mark locations of EPMA analyses; blue points mark locations of SIMS analyses.

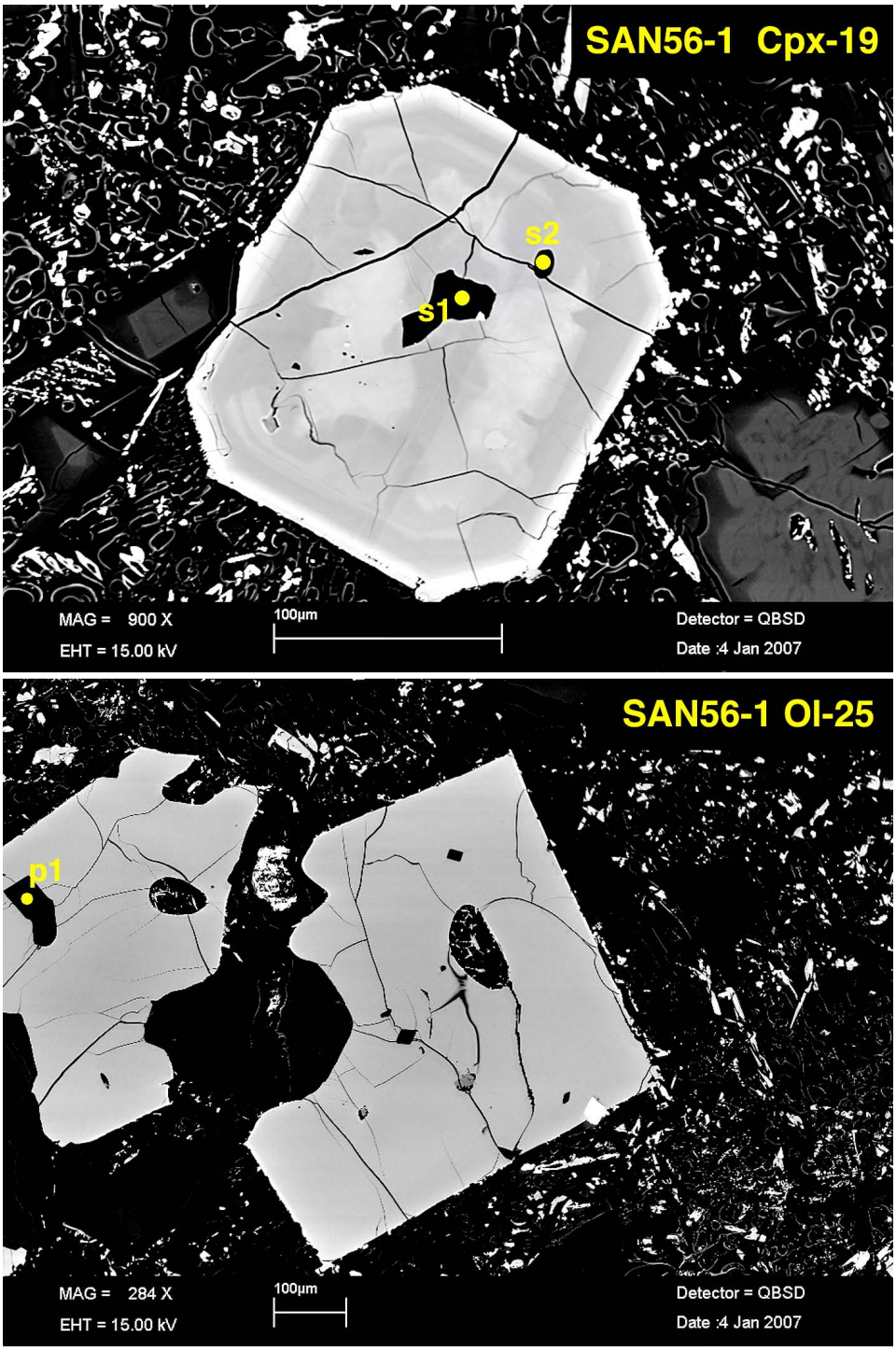


Fig. G.22. Minoan A – Scoria clast – SAN56-1: Pyroxene and olivine crystals Cpx-19 and Ol-25. Yellow points mark locations of EPMA analyses.

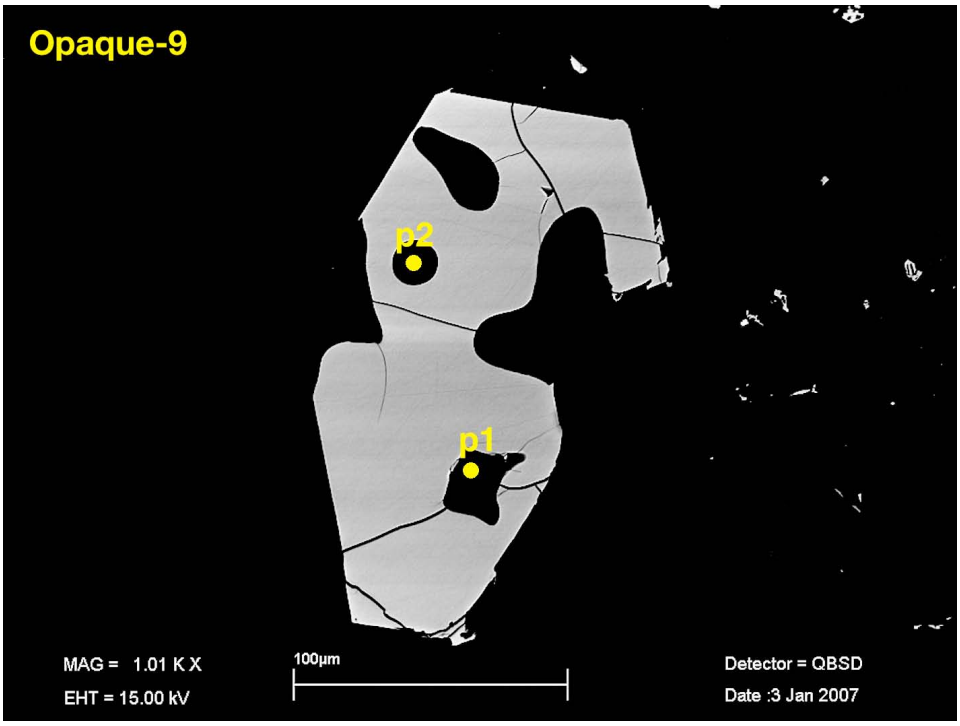


Fig. G.23. Minoan A – Scoria clast – SAN56-1: Opaque crystal phase Opaque-9. Yellow points mark locations of EPMA analyses.

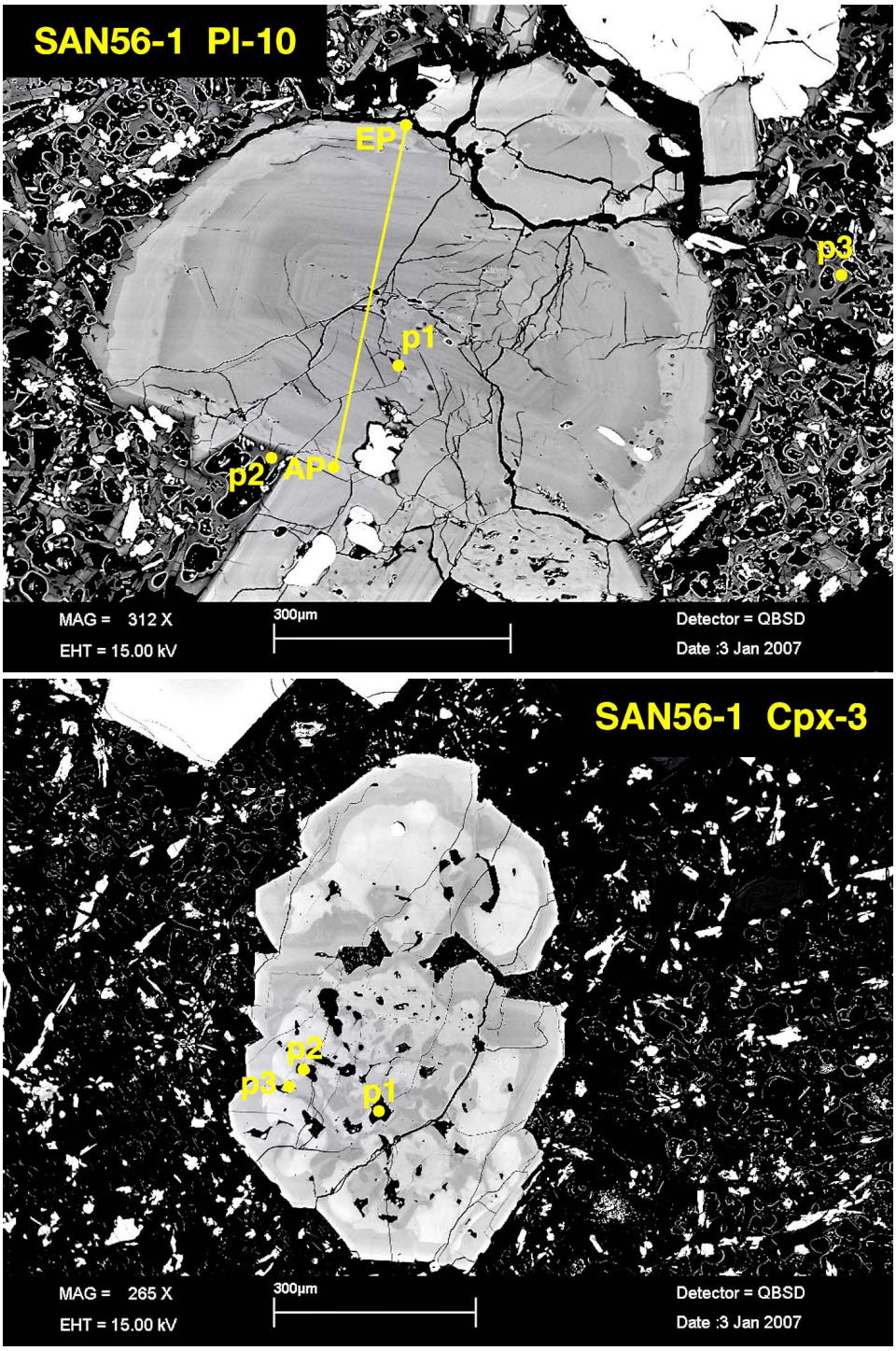


Fig. G.24. Minoan A – Scoria clast – SAN56-1: Plagioclase and pyroxene crystals Pl-10 and Cpx-3. Yellow points mark locations of EPMA analyses.

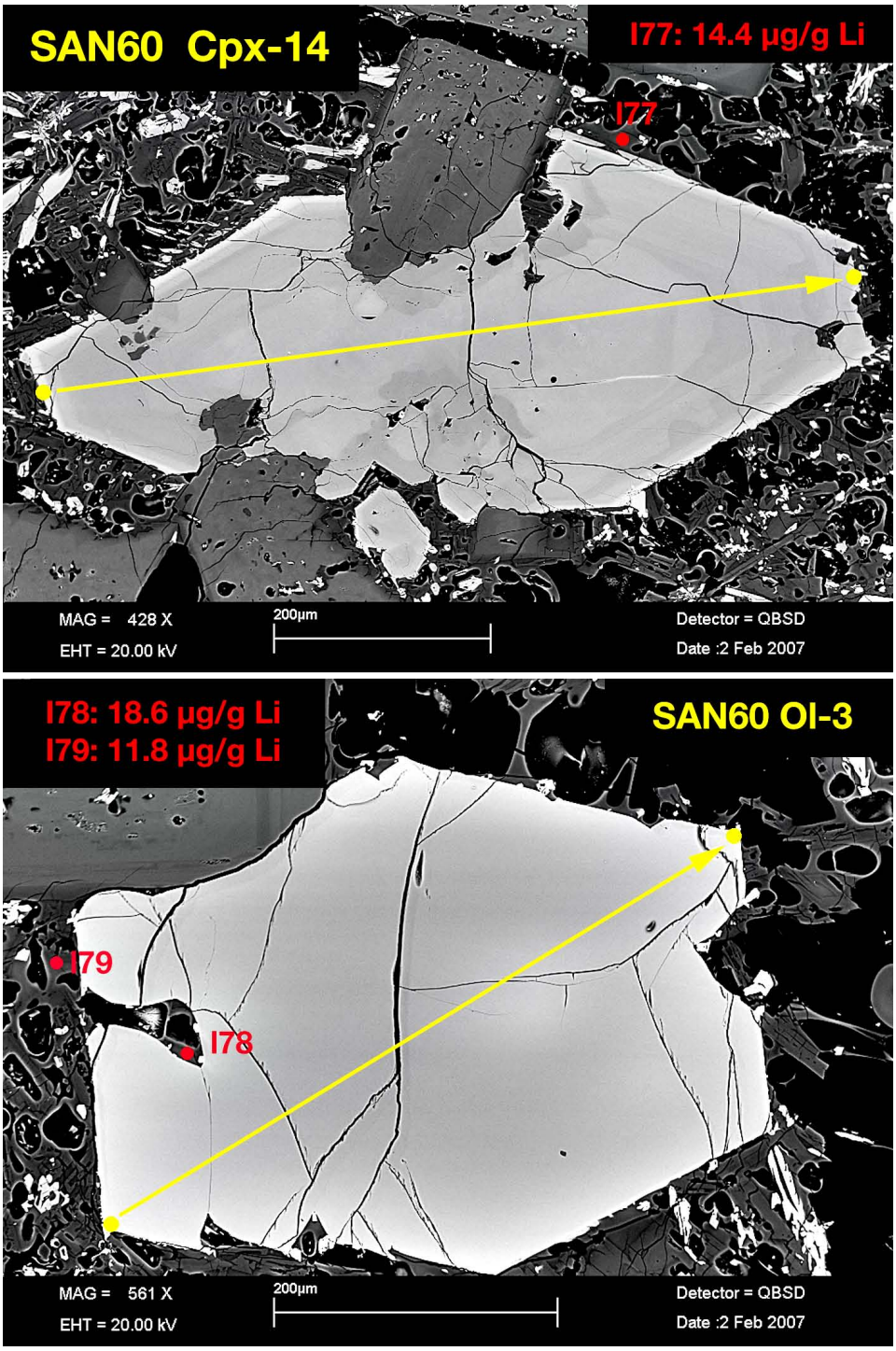


Fig. G.25. Minoan A – Scoria clast – SAN60: Pyroxene and olivine crystals Cpx-14 and Ol-3. Yellow points mark locations of EPMA analyses.

G.2. EPMA and SIMS analyses

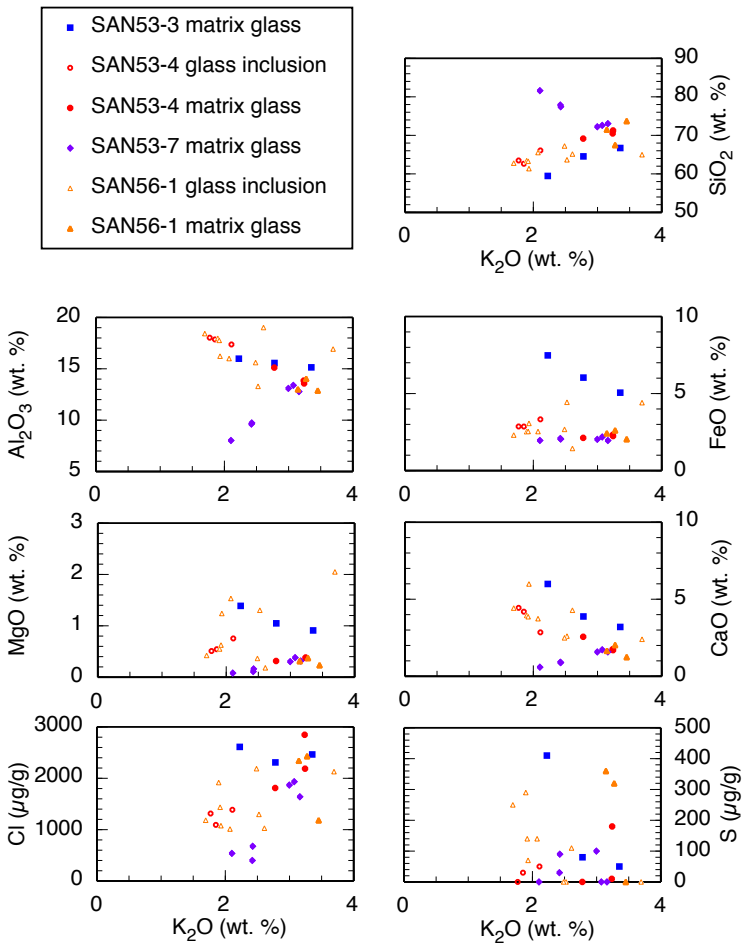


Fig. G.26. EPMA analyses of glass inclusions and matrix glass.

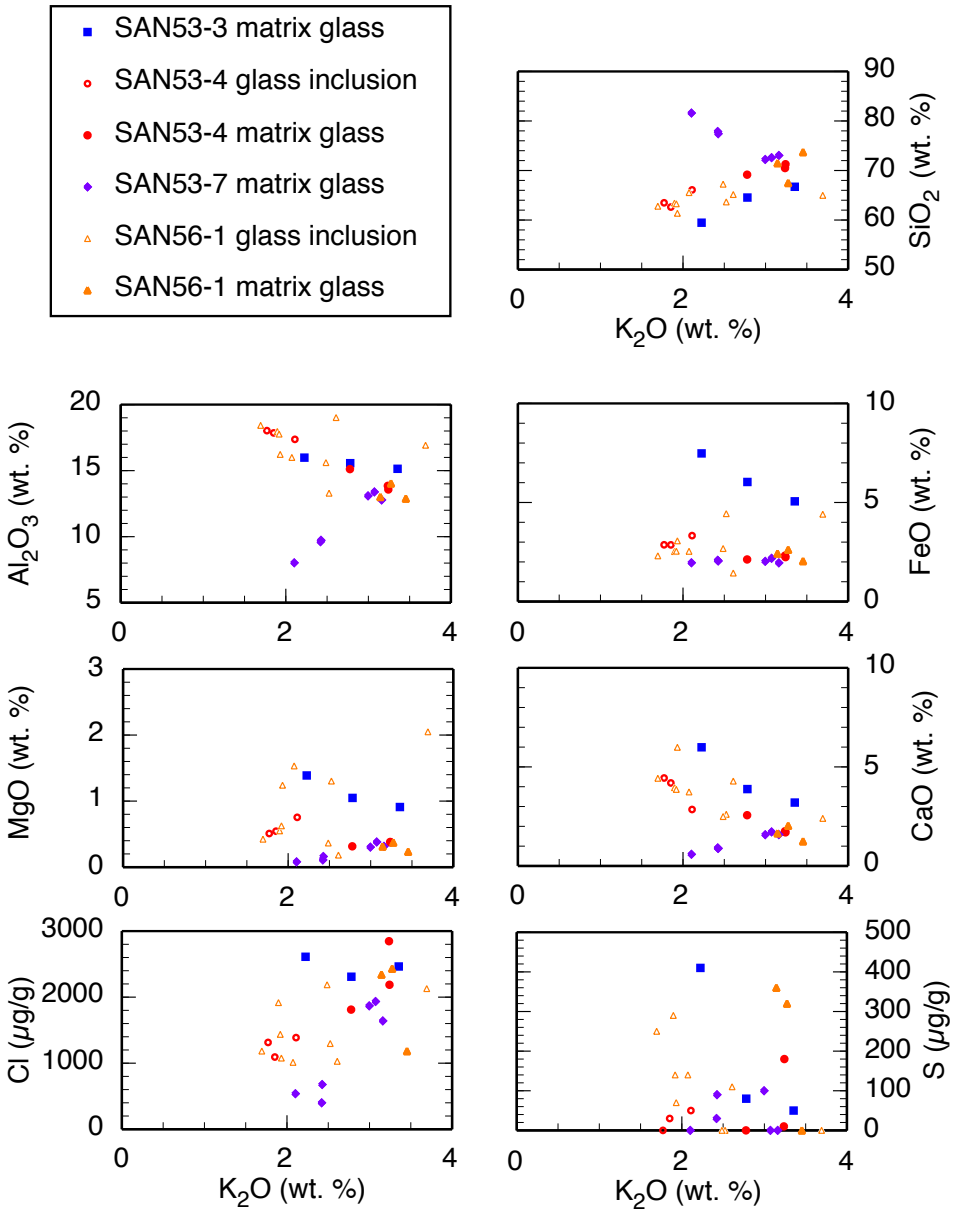


Fig. G.27. SIMS analyses of glass inclusions and matrix glass.

Table G.1. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Phenocrysts of Minoan Unit A Scoria Clasts

n	1	2	3	4	5	6	7	8	9	10
Sample	**S533-Px10-x39**	**S533-Px10-x40**	**S533-Ol9-x43**	**S534-Ol14-x51**	**S534-Op28-x55**	**S534-Px28-x56**	**S534-Px3-x49**	**S534-Px17-x53**	**S534-Pl23-x54**	**S537-Px2-x70**
Type	**glass**	**glass**	**glass**	**incl**	**incl**	**incl**	**glass**	**glass**	**glass**	**glass**
SiO_2	64.54	66.71	59.46	63.48	66.08	62.62	69.16	70.49	71.27	77.42
TiO_2	0.80	0.65	1.47	0.30	0.27	0.33	0.30	0.48	0.24	0.38
Al_2O_3	15.56	15.14	15.98	18.03	17.37	17.86	15.11	13.85	13.57	9.73
FeO	6.04	5.06	7.48	2.86	3.33	2.86	2.12	2.32	2.24	2.05
MnO	0.16	0.17	0.18	0.10	0.07	0.07	0.07	0.08	0.08	0.01
MgO	1.05	0.91	1.39	0.51	0.75	0.54	0.32	0.38	0.38	0.16
CaO	3.88	3.20	5.99	4.44	2.85	4.19	2.56	1.75	1.70	0.88
Na_2O	4.46	4.67	4.75	3.93	4.71	3.75	4.31	3.91	3.87	3.00
K_2O	2.78	3.35	2.23	1.77	2.11	1.85	2.78	3.24	3.24	2.43
P_2O_5	0.18	0.22	0.28	0.15	0.15	0.15	0.21	0.28	0.23	0.01
Total	99.45	100.07	99.20	95.56	97.69	94.23	96.93	96.78	96.81	96.08
F (μg/g)	1063	1112	1738	598	992	303	1217	1189	1091	190
Cl (μg/g)	2309	2464	2611	1314	1387	1093	1811	2847	2187	677
S (μg/g)	80	50	410	ND	50	30	ND	10	180	90
Li (μg/g)	31.0	NA	NA	NA	NA	NA	NA	NA	NA	16.6
2σ	1.2	NA	NA	NA	NA	NA	NA	NA	NA	0.2
Be (μg/g)	1.69	NA	NA	NA	NA	NA	NA	NA	NA	1.15
2σ	0.11	NA	NA	NA	NA	NA	NA	NA	NA	0.06
B (μg/g)	22.7	NA	NA	NA	NA	NA	NA	NA	NA	5.43
2σ	0.6	NA	NA	NA	NA	NA	NA	NA	NA	0.28
Mg (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	90.1	NA	NA	NA	NA	NA	NA	NA	NA	57.2
2σ	4.2	NA	NA	NA	NA	NA	NA	NA	NA	2.0
Ba (μg/g)	214	NA	NA	NA	NA	NA	NA	NA	NA	125
2σ	11	NA	NA	NA	NA	NA	NA	NA	NA	4
$\delta^{11}B$ (‰)	+2.0	NA	NA	+3.9	NA	NA	NA	+2.6	NA	NA
2σ	2.9	NA	NA	4.0	NA	NA	NA	6.4	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	4.63	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	0.07	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001). For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.2. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Phenocrysts of Minoan Unit A Scoria Clasts

n	11	12	13	14	15	16	17	18	19	20
Sample	**S537-Px2-x71**	**S537-Px4-x74**	**S537-Px4-x75**	**S537-Pl1-x79**	**S537-Qz2-x80**	**S561-Pl10-p1**	**S561-Px19-p1**	**S561-Px19-p2**	**S561-Px8-p1**	**S561-Px8-p2**
Type	**glass**	**glass**	**glass**	**glass**	**glass**	**incl**	**incl**	**incl**	**incl**	**incl**
SiO_2	77.87	73.04	72.23	72.60	81.60	63.65	67.23	65.54	63.41	63.27
TiO_2	0.36	0.36	0.26	0.33	0.25	0.62	0.48	0.40	0.33	0.27
Al_2O_3	9.62	12.78	13.09	13.39	8.02	13.29	15.61	16.00	17.96	17.77
FeO	2.08	1.95	2.03	2.18	1.96	4.43	2.68	2.53	2.52	2.54
MnO	0.05	0.06	0.08	0.08	0.02	0.08	0.09	0.19	0.02	0.10
MgO	0.11	0.32	0.30	0.38	0.08	1.30	0.37	1.53	0.55	0.63
CaO	0.91	1.58	1.58	1.72	0.59	2.61	2.49	3.74	3.95	3.86
Na_2O	3.01	3.46	3.67	3.91	2.52	3.02	3.29	3.25	3.22	3.38
K_2O	2.42	3.16	3.00	3.07	2.10	2.52	2.49	2.07	1.90	1.92
P_2O_5	0.01	0.16	0.25	0.20	0.00	0.16	0.17	0.13	0.08	0.06
Total	96.45	96.87	96.47	97.86	97.14	91.69	94.88	95.37	93.94	93.80
F (μg/g)	570	732	549	992	162	NA	NA	NA	NA	NA
Cl (μg/g)	400	1640	1868	1934	538	1297	2187	1012	1917	1436
S (μg/g)	30	ND	100	ND	ND	ND	ND	140	290	140
Li (μg/g)	18.9	14.4	22.0	NA	NA	NA	NA	NA	NA	NA
2σ	0.3	0.6	0.3	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	1.17	1.79	2.02	NA	NA	NA	NA	NA	NA	NA
2σ	0.09	0.09	0.12	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	5.10	13.7	16.1	NA	NA	NA	NA	NA	NA	NA
2σ	0.25	1.1	0.4	NA	NA	NA	NA	NA	NA	NA
Mg (μg/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	55.7	83.5	50	NA	NA	NA	NA	NA	NA	NA
2σ	2.5	26.0	1	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	122	462	559	NA	NA	NA	NA	NA	NA	NA
2σ	5	17	5	NA	NA	NA	NA	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001). For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.3. EPMA and SIMS Analyses of Glass Inclusions and Glass Selvages in Phenocrysts of Minoan Unit A Scoria Clasts

n	21	22	23	24	25	26	27
Sample	**S561-Px8-p3**	**S561-Op9-p2**	**S561-Px3-p1**	**S561-Px3-p3**	**S561-Pl10-p2**	**S561-Pl10-p3-2**	**S561-Px7-p2**
Type	**incl**	**incl**	**incl**	**incl**	**selvage**	**selvage**	**selvage**
SiO_2	61.36	64.97	65.15	62.78	67.49	71.49	73.72
TiO_2	0.39	0.30	0.23	0.27	0.85	0.98	0.36
Al_2O_3	16.23	16.92	19.02	18.42	14.03	13.01	12.88
FeO	3.06	4.41	1.44	2.31	2.62	2.42	2.04
MnO	0.08	0.07	0.03	0.16	0.10	0.10	0.06
MgO	1.24	2.05	0.18	0.42	0.37	0.31	0.23
CaO	5.99	2.40	4.28	4.42	2.03	1.65	1.25
Na_2O	3.24	4.63	5.01	3.36	3.83	3.56	3.48
K_2O	1.93	3.69	2.61	1.70	3.27	3.15	3.45
P_2O_5	0.17	0.15	0.20	0.15	0.36	0.14	0.27
Total	93.68	99.60	98.14	93.99	94.95	96.81	97.76
F (μg/g)	NA	NA	NA	NA	NA	NA	NA
Cl (μg/g)	1077	2129	1028	1183	2431	2342	1183
S (μg/g)	70	ND	110	250	320	360	ND
Li (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
Be (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
B (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
Mg (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
Ba (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
$\delta^{11}B$ (‰)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA

Abbreviations: NA - not analyzed; ND - not detected. EPMA analyses of F was corrected after Kalt *et al.* (2001). For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.4. SIMS Analyses of Glass Inclusions

n	1	2	3	4	5	6	7	8	9	10
SIMS	**SIMS-profile**	**SIMS-profile**	**SIMS-profile**	**SIMS-profile**	**SIMS-profile**	**SIMS-l95**	**SIMS-l96**	**SIMS-l50**	**SIMS-l51**	**SIMS-l52**
EMS	**S531-Pl16-x1**	**S531-Pl16-x2**	**S531-Pl9-0.0**	**S531-Pl9-5.1**	**s531-Pl9-149.7**	**S532-Pl14-p2**	**S532-Pl21-p1**	**S533-Pl1-P2**	**S533-Pl6-x44**	**S533-Pl6-x46**
Type	**profile/rim**	**profile/rim**	**profile**	**profile**	**profile**	**matrix**	**matrix**	**matrix**	**Albit**	**Palagonit?**
Li (μg/g)	19.9	27.2	10.2	17.1	3.15	5.48	13.6	22.2	5.26	123
2σ	2.1	2.2	1.6	1.2	0.52	0.39	0.6	0.5	0.17	4
Be (μg/g)	0.44	0.49	1.02	0.49	1.53	1.21	1.98	1.72	0.39	2.34
2σ	0.06	0.04	0.09	0.07	0.08	0.09	0.10	0.08	0.05	0.09
B (μg/g)	1.34	4.26	6.57	2.59	6.86	14.2	19.3	21.8	0.099	53.3
2σ	0.18	0.45	0.39	0.29	0.32	0.6	0.7	0.7	0.040	1.7
Mg (μg/g)	857	9231	13376	11719	1482	806	2705	11672	11.7	7861
2σ	166	460	1518	1396	516	195	357	109	1.6	221
Sr (μg/g)	45.6	81.4	63.0	71.4	127	40.1	83.4	116	341	108
2σ	1.2	10.2	2.9	3.8	4	2.4	2.0	2	5	5
Ba (μg/g)	32.2	67.4	1325	531	1558	312	599	237	4.05	71.8
2σ	3.0	6.9	74	58	45	13	48	5	2.17	3.4
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A scoria clasts. NA = not analyzed. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.5. SIMS Analyses of Glass Inclusions

n	11	12	13	14	15	16	17	18	19	20
SIMS	**SIMS-l59**	**SIMS-l60**	**SIMS-l61**	**SIMS-l53**	**SIMS-l54**	**SIMS-l55**	**SIMS-l56**	**SIMS-l62**	**SIMS-l63**	**SIMS-l64**
EMS	**S533-Px10-x39 (20)**	**S533-Px14-K**	**S533-Ol9c-K2**	**S534-Pl10-P1**	**S534-Pl10-P2**	**S534-Pl25-P1**	**S534-Pl25-P2**	**SAN534-Px3-K3**	**S534-Px3-K4**	**S534-Px31-K5**
Type	**selvage**	**glass-mx**	**glass-mx**	**matrix**	**matrix**	**matrix**	**matrix**	**glass-mx**	**glass-mx**	**glass-mx**
Li (μg/g)	31.0	25.7	15.8	14.8	20.3	16.4	6.1	20.3	17.7	19.1
2σ	1.2	1.0	0.3	0.2	0.5	1.4	0.2	0.3	0.4	0.46
Be (μg/g)	1.69	1.6	1.76	1.69	1.71	1.66	0.07	1.93	1.87	2.07
2σ	0.11	0.1	0.08	0.12	0.15	0.15	0.03	0.07	0.13	0.11
B (μg/g)	22.72	21.27	21.67	9.48	12.6	7.99	0.523	14.6	12.2	15.4
2σ	0.58	0.49	0.61	0.36	0.4	1.34	0.199	0.5	0.3	0.3
Mg (μg/g)	NA	NA	NA	1276	4119	6122	447853	NA	NA	NA
2σ	NA	NA	NA	20	295	1105	2060	NA	NA	NA
Sr (μg/g)	90.1	111	113	217	132	186	5.0	73.6	134	55.2
2σ	4.2	4	2	8	4	47	0.7	11.4	4	1.8
Ba (μg/g)	214	195	217	424	498	409	20	567	433	566
2σ	11	3	9	6	10	23	3	11	8	11
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A scoria clasts. NA = not analyzed. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.6. SIMS Analyses of Glass Inclusions

n	21	22	23	24	25	26	27	28	29	30
SIMS	**SIMS-l65**	**SIMS-l66**	**SIMS-l67**	**SIMS-l57**	**SIMS-l68**	**SIMS-l69**	**SIMS-l70**	**SIMS-l71**	**SIMS-l58**	**SIMS-l72**
EMS	**S534-ol9-K6**	**S534-ol9-K7**	**S535-Px17-K**	**S536-Pl11-K**	**S536-Px4-z1**	**S536-Px4-z2**	**S536-Px4-z3**	**S536-Px19-K10**	**S537-Pl6-S**	**S537-Px4-K11**
Type	**glass-mx**	**glass-mx**	**matrix**	**Matrix**	**rim**	**rim**	**matrix**	**matrix**	**glass**	**glass**
Li (μg/g)	12.7	13.9	6.4	15.5	51.4	266	2.6	20.9	27.8	14.4
2σ	0.3	0.3	0.3	0.5	2.4	21	0.1	0.3	0.2	0.6
Be (μg/g)	1.6	1.28	1.3	4.35	1.69	1.88	1.14	3.09	2.54	1.79
2σ	0.1	0.08	0.1	0.23	0.12	0.10	0.10	0.12	0.17	0.09
B (μg/g)	5.19	3.71	15.2	19.01	19.78	10.71	9.96	19.87	14.32	13.72
2σ	0.23	0.24	0.4	0.41	3.52	0.51	0.25	0.62	0.29	1.12
Mg (μg/g)	NA	NA	NA	13476	NA	NA	NA	NA	1108	NA
2σ	NA	NA	NA	219	NA	NA	NA	NA	26	NA
Sr (μg/g)	356	327	44.1	33.4	42.3	28.5	46.6	8.79	44.8	83.5
2σ	3	9	1.5	2.4	2.5	1.2	1.2	0.69	1.8	26.0
Ba (μg/g)	288	217	437	106	223	80.6	383	344	517	462
2σ	6	8	16	7	14	6.4	9	8	8	17
δ^{11}B (‰)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A scoria clasts. NA = not analyzed. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.7. SIMS Analyses of Glass Inclusions

n	31	32	33	34	35	36	37
SIMS	**SIMS-l73**	**SIMS-l74**	**SIMS-l75**	**SIMS-l76**	**SIMS-l77**	**SIMS-l78**	**SIMS-l79**
EMS	**S537-Px4-K12**	**S537-Px2-K13**	**S537-Px2-K14**	**S537-Px2**	**S60-Px14-s15**	**S60-Ol3-s16**	**S60-Ol3-s17**
Type	**glass**	**glass**	**glass**	**glass**	**glass**	**glass**	**glass**
Li (μg/g)	22.0	19.3	18.9	16.6	14.4	18.6	11.8
2σ	0.3	0.3	0.3	0.2	0.4	0.6	0.2
Be (μg/g)	2.02	1.14	1.17	1.15	1.44	1.20	1.09
2σ	0.12	0.09	0.09	0.06	0.11	0.09	0.06
B (μg/g)	16.1	4.8	5.10	5.43	8.55	10.14	8.96
2σ	0.4	0.2	0.25	0.28	0.41	0.53	0.41
Mg (μg/g)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA
Sr (μg/g)	50	55.8	55.7	57.2	96.7	45.2	47.6
2σ	1	2.4	2.4	2.0	3.2	1.9	1.4
Ba (μg/g)	559	122	122	125	377	406	336
2σ	5	3	5	4	11	10	15
δ^{11}B (‰)	NA	+5.1	NA	+5.0	NA	NA	NA
2σ	NA	4.0	NA	3.9	NA	NA	NA
H_2O (wt. %)	NA	NA	NA	NA	NA	NA	NA
2σ	NA	NA	NA	NA	NA	NA	NA

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A scoria clasts. NA = not analyzed. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.8. SIMS Analyses of Glass Inclusions

n	1	2	3	4	5	6	7	8	9	10
Sample	**S52C-Pl1-w6**	**S52C-Pl1-w7**	**S52C-Pl1-w8**	**S52C-Pl2-w9**	**S52C-Pl2-w10**	**S52C-Pl3-w11**	**S54A-Pl4-w31**	**S54A-Pl4-w32**	**S54A-Pl6-w33**	**S54A-Pl6-w34**
EMS	-	s10	s62	s13	s14	s63	s33	s72	s35	s73
SIMS	l8	l9	-	-	-	l13	l35	l36	l37	l38
H_2O (wt. %)	5.6	4.9	2.1	5.8	4.7	1.3	4.4	1.8	4.1	1.5
2σ	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1

n	11	12	13	14	15	16	17	18	19	20
Sample	**S54A-Pl7-w35**	**S55A-Pl1-w38**	**S55A-Pl1-w39**	**S55A-Pl2-w40**	**S55A-Pl2-w41**	**S55A-Pl2-w42**	**S57B-Pl3-w36**	**S57B-Pl2-w37**	**S58C-Pl1-w12**	**S58C-Pl1-w13**
EMS	s74	s76	-	s77	s40	-	s36	-	s18	s16
SIMS	-	-	l42	-	-	-	l39	-	l14	l15
H_2O (wt. %)	1.1	4.9	2.6	3.0	5.1	4.0	5.7	3.3	5.1	5.2
2σ	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.1	0.2

n	21	22	23	24	25	26	27	28	29	30
Sample	**S58C-Pl1-w14**	**S58C-Pl1-w15**	**S58C-Pl1-w16**	**S58C-Pl2-w17**	**S58C-Pl2-w18**	**S58C-Pl3-w19**	**S58C-Pl3-w20**	**S58C-Pl3-w21**	**S59C-Pl1-w22**	**S59C-Pl1-w23**
EMS	s19	s64	s65	s22	s66	-	s24	s67	s27	l28
SIMS	-	-	-	l19	-	l23	-	l25	l26	-
H_2O (wt. %)	4.9	2.7	1.8	5.2	2.6	5.1	4.7	3.2	4.5	4.9
2σ	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2

n	31	32	33	34	35	36	37	38	39	40
Sample	**S59C-Pl1-w24**	**S59C-Pl2-w25**	**S59C-Pl2-w26**	**S59C-Pl3-w27**	**S59C-Pl3-w28**	**S59C-Pl4-w29**	**S59C-Pl4-w30**	**S50C-Pl1-w1**	**S50C-Pl3-w2**	**S50C-Pl3-w3**
EMS	s68	-	s69	s29	s70	-	s71	-	s3	-
SIMS	-	l29	l30	l31	-	l33	-	-	-	-
H_2O (wt. %)	2.2	4.6	1.5	4.8	3.3	4.3	3.4	3.1	4.1	3.8
2σ	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1

n	41	42
Sample	**S50C-Pl3-w4**	**S50C-Pl4-w5**
EMS	s61	s7
SIMS	-	-
H_2O (wt. %)	3.2	4.0
2σ	0.1	0.1

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A scoria clasts. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.9. SIMS Analyses of Glass Inclusions

n	1	2	3	4	5	6	7	8	9	10
Sample	**S59A-Pl2**	**S59A-Pl2**	**S59A-Pl9**	**S59A-Pl10**	**S59A-Pl10**	**S59A-Pl7**	**S59A-Pl2**	**S59A-Pl7**	**S59A-Pl7**	**S59A-Pl9**
Type	incl	incl	incl	incl	incl	incl	selvage	selvage	selvage	selvage
EMS	p1-2	p2	p1-5	p1	p2-1	p1	p3	-	-	p4-1
SIMS	i1	i2	i8	i11	i12	i14	i3	i5	i6	i9
H2O (wt. %)	6.1	6.6	4.3	5.3	7.0	6.6	3.5	1.8	1.8	1.4
2s	0.1	0.2	0.1	0.2	0.1	0.4	0.2	0.2	0.0	0.1

n	11	12	13	14	15	16	17	18	19	20
Sample	**S59A-Pl9**	**S59A-Pl10**	**S52A-Pl7**	**S52A-Pl7**	**S52A-Pl7**	**S52A-Pl1**	**S52A-Pl1**	**S50A-Pl1**	**S50A-Pl1**	**S50A-Pl8**
Type	selvage	selvage	incl	incl	incl	selvage	selvage	incl	incl	incl
EMS	p5-1	p3	-	-	-	-	-	-	-	-
SIMS	i10	i13	i19	i20	i21	i17	i18	i22	i24	i28
H2O (wt. %)	2.0	3.8	5.6	2.4	2.2	0.9	1.5	5.2	6.5	4.6
2s	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3

n	21	22	23	24	25	26	27	28	29	30
Sample	**S50A-Pl8**	**S50A-Pl9**	**S50A-Pl1**	**S50A-Pl1**	**S50A-Pl8**	**S50A-Pl8**	**S50A-Pl9**	**S58A-Pl1**	**S58A-Pl1**	**S58A-Pl5**
Type	incl	incl	selvage	selvage	selvage	selvage	selvage	incl	incl	incl
EMS	-	-	-	-	-	-	-	-	-	x7
SIMS	i29	i30	i23	i25	i26	i27	i31	i32	i33	i37
H2O (wt. %)	2.5	5.9	3.4	3.2	3.4	3.4	3.0	5.9	5.7	4.7
2s	0.2	0.2	0.1	0.2	0.1	0.0	0.2	0.1	0.2	0.7

n	31	32	33	34	35	36	37	38	39	40
Sample	**S58A-Pl1**	**S58A-Pl5**	**S612-Pl17**	**S612-Pl17**	**S612-Pl17**	**S511B-Pl3**	**S511B-Pl3**	**S511B-Pl3**	**S534-Pl23**	**S534-Pl23**
Type	incl	incl	incl	selvage	selvage	incl	incl	selvage	incl	selvage
EMS	-	x6	-	-	-				x54	
SIMS	i34	i35	i38	i39	i40	i42	i43	i44	i46	i45
H2O (wt. %)	2.5	2.1	5.4	3.5	2.4	5.3	4.5	2.9	4.6	3.4
2s	0.1	0.1	0.1	0.2	0.1	0.4	0.4	0.1	0.7	0.2

i-series SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A pumice clasts. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.10. SIMS Analyses of Glass Inclusions

n	1	2	3	4	5	6	7	8	9	10
Sample	**S52D-Px5-B1**	**S52D-Px5-B2**	**S52D-Px6-B3**	**S52D-Px9-B4**	**S52D-Px9-B5**	**S54D-Px6-B6**	**S54D-Px6-B7**	**S54D-Px6-B8**	**S55D-Px2-B17**	**S55D-Px6-B18**
EMS	-	-	-	-	m20	m23	-	-	m28	-
SIMS	-	-	-	-	-	-	-	-	-	-
δ^{11}B (‰)	+7.0	+5.6	+6.3	+5.2	+8.3	+6.7	+6.0	+5.5	+3.9	+6.8
2σ	1.7	1.5	1.7	1.5	3.4	1.7	1.9	1.7	1.6	2.4
n	11	12	13	14	15	16	17	18	19	20
Sample	**S55D-Px6-B19**	**S55D-Px8-B20**	**S55D-Px8-B21**	**S55D-Px8-B22**	**S57D-Px3-B28**	**S57D-Px3-B29**	**S57D-Px3-B30**	**S57D-Px1-B31**	**S57D-Px1-B32**	**S58D-Px3-B33**
EMS	-	-	-	-	m35	-	m30	-	m34	m42
SIMS	-	-	-	sm6	-	sm29	-	-	sm30	-
δ^{11}B (‰)	+2.4	+2.7	+6.7	+23.1	+14.3	+6.3	+1.8	+1.5	+3.0	+9.6
2σ	2.0	2.1	2.0	23.6	20.7	1.8	3.4	1.6	1.8	1.6
n	21	22	23	24	25	26	27	28	29	30
Sample	**S58D-Px3-B34**	**S58D-Px4-B35**	**S58D-Px5-B36**	**S58D-Px5-B37**	**S58D-Px5-B38**	**S611A-Pl5-B39**	**S611A-Pl5-B40**	**S611A-Pl17-B41**	**S611A-Pl17-B42**	**S611A-Px10-B43**
EMS	-	m43	-	-	-	m56	-	-	-	-
SIMS	-	-	-	-	-	-	-	-	-	l91
δ^{11}B (‰)	+4.5	+6.2	−0.3	+1.7	+6.3	+5.9	+1.5	+4.9	+4.2	−1.17
2σ	1.5	1.6	2.	2.2	2.4	2.0	2.7	1.5	1.6	3.7
n	31	32	33	34	35	36	37	38	39	40
Sample	**S611A-Px10-B44**	**S59D-Px10-B23**	**S59D-Px10-B23-a**	**S59D-Px10-B23-b**	**S59D-Px10-B24**	**S59D-Px9-B25**	**S59D-Px1-B26**	**S59D-Px1-B27**	**S50D-Px10-B9**	**S50D-Px10-B10**
EMS	-	-	-	-	m52	-	-	m47	m14	m13
SIMS	-	-	-	-	sm34	-	-	sm32	l14	-
δ^{11}B (‰)	+0.7	+8.7	+8.5	+4.0	+5.0	+5.2	+5.0	+4.0	+8.3	+5.34
2σ	2.2	2.0	4.7	12.2	2.1	1.7	1.8	1.6	1.5	1.5

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A pumice clasts. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.

Table G.11. SIMS Analyses of Glass Inclusions

n	41	42	43	44	45	46	47	48	49	50
Sample	**S50D-Px10-B11**	**S50D-Px10-B12**	**S50D-Px7-B13**	**S50D-Px7-B14**	**S50D-Px9-B15b**	**S50D-Px9-B16**	**S511B-Pl2-B45**	**S511B-Pl2-B46**	**S511B-Pl3-B47**	**S511B-Pl3-B48**
EMS	-	-	m5	-	-	-	-	x12	x17	-
SIMS	-	-	-	-	-	-	-	-	-	-
δ^{11}B (‰)	+3.5	+6.7	+5.3	+2.6	+6.5	+5.3	+12.1	+0.1	+2.6	−1.1
2σ	1.8	1.7	1.8	2.2	3.5	2.8	5.8	2.2	2.1	2.4

n	51	52	53	54	55	56	57	58	59	60
Sample	**S511B-Pl17-B49**	**S511B-Pl17-B50**	**S511B-Px6-B51**	**S511B-Px6-B52**	**S533-Ol9-B66**	**S533-Ol9-B67**	**S533-Px10-B68**	**S533-Px10-B69**	**S533-Px10-B70**	**S533-Px10-B71**
EMS	-	-	x15	x13	-	-	x39	-	-	-
SIMS	-	sm38	-	-	-	-	l59	-	-	-
δ^{11}B (‰)	+5.5	+4.3	+4.2	−1.5	+8.1	+6.8	+2.0	+3.3	+2.1	+5.01
2σ	2.0	1.7	3.2	3.3	2.1	2.0	2.9	1.8	1.8	1.8

n	61	62	63	64	65	66	67	68	69	70
Sample	**S533-Pl3-B72**	**S533-Pl3-B73**	**S533-Encl8-B74**	**S533-Encl8-B75**	**S533-Encl8-B76**	**S533-Encl8-B77**	**S534-Px17-B53**	**S534-Px15-B54**	**S534-Px3-B55**	**S534-Px14-B56**
EMS	-	-	-	-	-	-	x53	-	-	-
SIMS	-	-	-	-	-	-	-	-	-	-
δ^{11}B (‰)	+1.8	+4.9	+2.5	+2.3	−1.2	−3.5	+2.6	+2.1	+6.9	+7.62
2σ	2.4	1.9	1.9	1.8	1.9	1.7	6.4	3.0	2.7	2.9

n	71	72	73	74	75	76	77	78	79	80
Sample	**S534-Px14-B57**	**S534-Ol12-B58**	**S537-Px2-B59**	**S537-Px2-B60**	**S537-Px2-B61**	**S537-pl6-B62**	**S537-Pl6-B63**	**S537-Pl6-B64**	**S537-Pl6-B65**	**S561-Px7-B78**
EMS	x51	-	-	x72	x70	-	-	-	-	-
SIMS	-	-	-	l74	l76	-	-	-	-	-
δ^{11}B (‰)	+3.9	+7.0	−10.5	+5.1	+5.0	+1.5	+9.5	+2.4	+5.4	+5.15
2σ	4.0	7.4	15.2	4.0	3.9	3.2	6.7	2.9	3.5	3.9

SIMS analyses of glass inclusions in phenocrysts of Minoan Unit A pumice clasts. For the thesis only those analyses were used were melt inclusions and matrix glass were still intact after analysis.