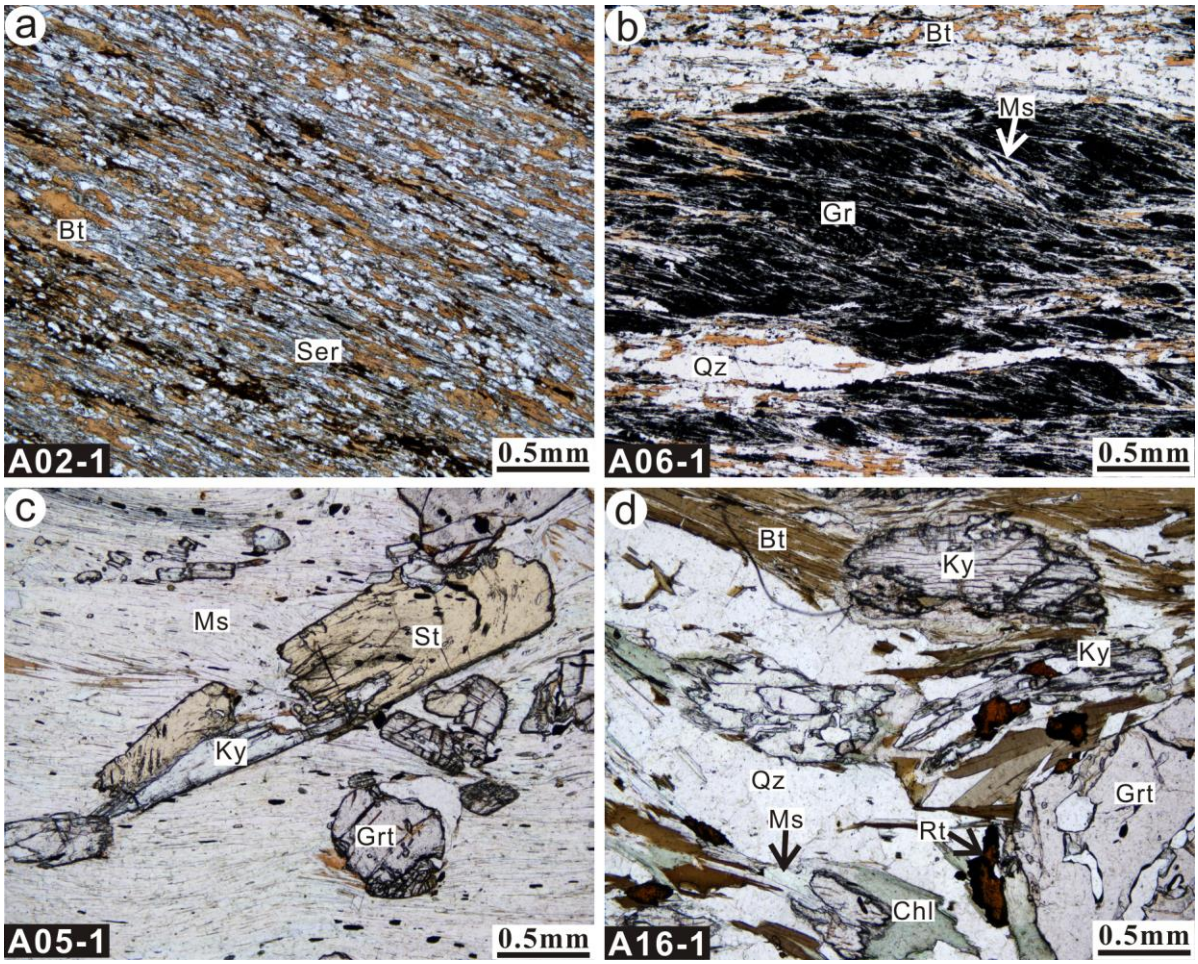
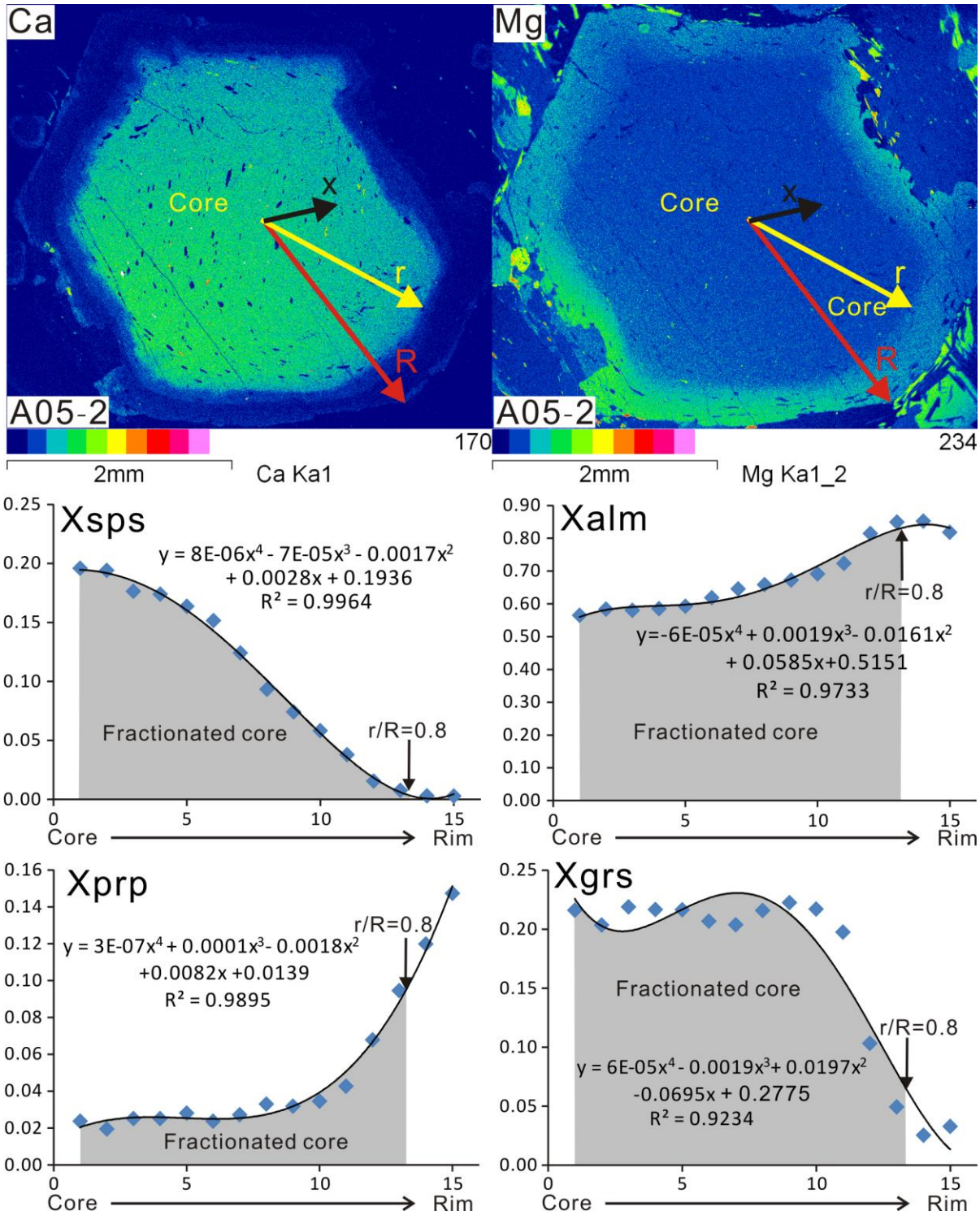
Appendix Fig. A.1

Photomicrographs of samples A02-1, A06-1, A05-1 and A16-1. (a) Sample A02-1 has a greenschist-facies mineral assemblage and 100-millimetre-scale grain size. (b) Sample A06-1 contains a large amount of graphite and exhibits an S-C fabric. (c) Sample A05-1: aligned kyanite and staurolite crystals. (d) Sample A16-1 has a kyanite-grade mineral assemblage.



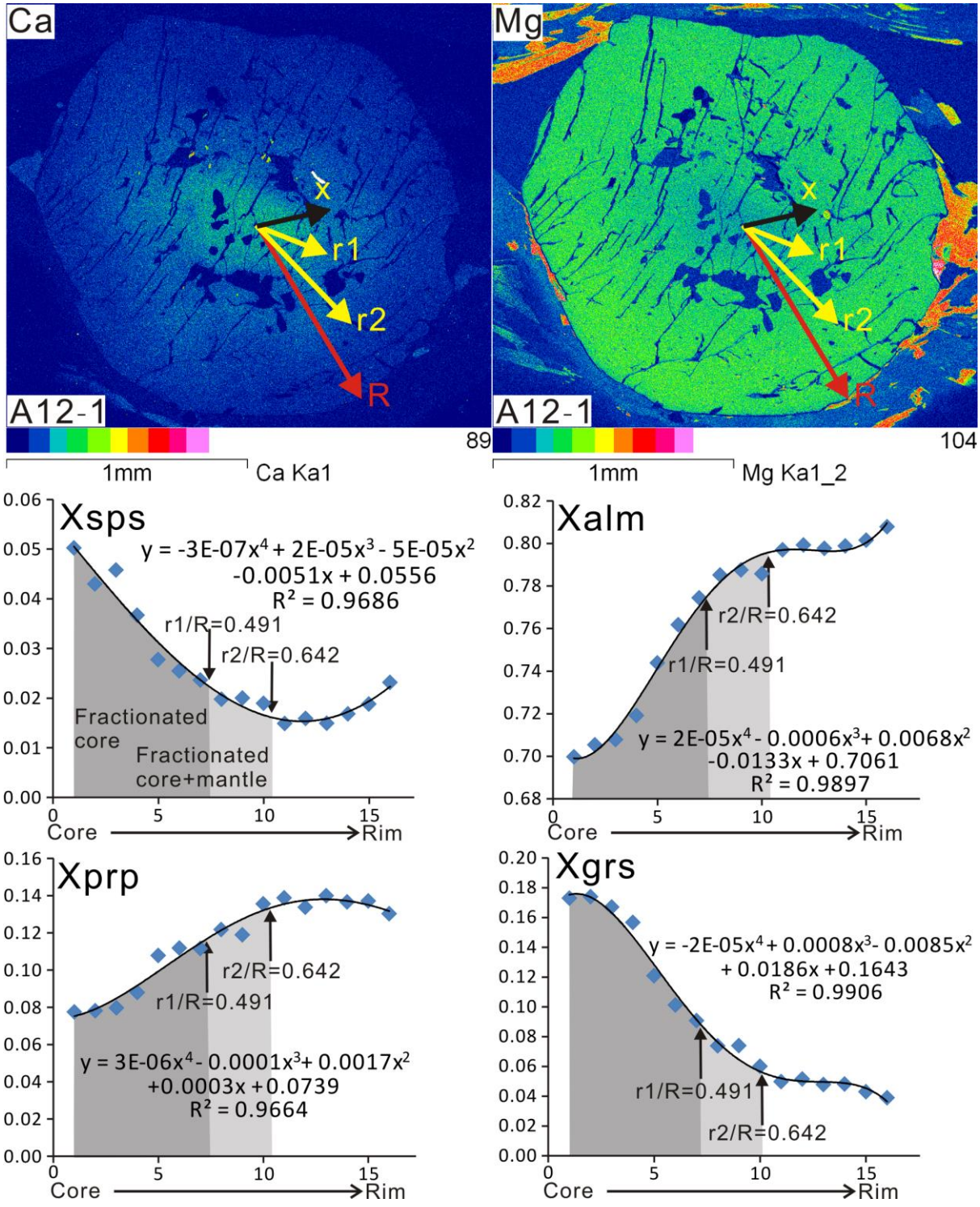
Appendix Fig. A.2

Sample A05-2: Polynomial fitting of the garnet zoning as a function of x into quadrinomial. Most of the R^2s are larger than 95%. Grey areas represent the fractionated core of the garnet MnO, FeO, MgO and CaO components.



Appendix Fig. A.3

Sample A12-1: Polynomial fitting of the garnet zoning as a function of x into quadrinomial. All the R^2s are larger than 95%. Grey areas represent the fractionated core (core + mantle) of the garnet MnO, FeO, MgO and CaO components.



Appendix Fig. A.4

P-T diagrams showing the possible influences to accurate determination of peak *P-T* conditions. EBC, effective bulk composition. Isopleths and isomodes are: solid line, EBC; dotted line, Ap correction. Solid and dotted lines in sample A05-2 almost coincide. The mineral assemblages shown are peak assemblages in each sample.