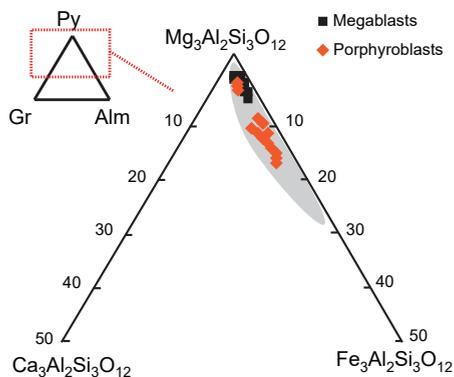
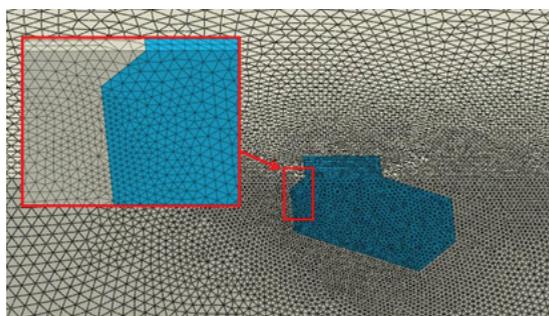


**FIGURE S.1:** Tectono-metamorphic sketch map of the southern part of Dora Maira Massif (modified from Castelli et al. 2007). The white star indicates the locality from which garnet bearing white schists come from (Gilba locality near Case Fapina).



**FIGURE S.2:** Chemical composition of garnet porphyroblasts and megablasts in the ternary diagrams Py-Alm-Gr. In grey is reported the composition of garnets from literature data (Ferrando et al. 2009)



**FIGURE S.3.** 3D Finite element meshes of a faceted inclusion partially exposed to the surface of the host. Only half of the model is shown. The full model is obtained by reflection through the mirror plane, as described in the text.