**P-T METAMORPHIC EVOLUTION MODELLING - Methodology**

Structural f­ormulae for all analysed minerals were obtained with the A-X tool of the THERMOCALC software (Holland & Powell 1998 v. 3.33 as of 2016). The amount of Fe2+ and Fe3+ was obtained by charge balance, assuming that Fe is the only variable charge element for all minerals. Mineral chemistry of the analysed minerals is summarized in Appendix B.

P-T estimates were obtained using the THERMOCALC software (Holland & Powell 1998 v. 3.33 as of 2016) that uses an internally-consistent thermodynamic database. Activities for the relevant mineral phases (garnet, amphibole, clinopyroxene, plagioclase and quartz) were calculated with the A-X tool (Holland & Powell 1998). Average P-T calculations obtained with THERMOCALC make use of a wide set of independent reactions involving all end-members of the referred mineral assemblage (Worley & Powell 2000). Standard deviation for reactions controlling the temperature outputs given by THERMOCALC are ca. 50 ⁰C, whereas for pressure estimates, the standard deviation ranges between 1.0 to 1.5 kbar (e.g. Hodges & Crowley 1985). Standard methodological procedures involving the rationale for P-T calculations can be found in Spear & Florence (1992), Bento dos Santos *et al.* (2011) and Jesus *et al.* (2016).

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