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Addendum

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Program "RCLC": Garnet–Orthopyroxene Thermobarometry Corrected for Late Fe–Mg Exchange

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Addendum to: Pattison, D.R.M., Chacko, T., Farquhar, J. & McFarlane, C.R.M. (2003) Temperatures of granulite facies metamorphism: constraints from experimental phase equilibria and thermobarometry corrected for late Fe–Mg exchange. *Journal of Petrology* **44**, 867–900.

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A web-based version of program "RCLC", the software used in the above paper, is now available at the following links:

https://rclc.facsci.ualberta.ca/

https://www.ucalgary.ca/pattison/rclc

RCLC, which is short for 'recalculation', is a program that calculates pressure–temperature (*P–T*) conditions of garnet–orthopyroxene–plagioclase–quartz±cordierite±biotite (Grt–Opx–Pl–Qtz±Crd±Bt) mineral assemblages. It is based on Al-solubility in Opx in equilibrium with Grt, corrected for late Fe–Mg exchange.

The rationale and calculation method for the program are described in Chacko et al. (1996) and in Pattison et al. (2003). Figure 1 (figure 3 from Pattison et al. (2003)) shows graphically how RCLC works.

The program described in Pattison et al. (2003) was written in BASIC and compiled on a PC. However, because the BASIC language is no longer compatible with newer versions of the Windows operating system, the RCLC program was converted into a Web-based application in which the underlying computer

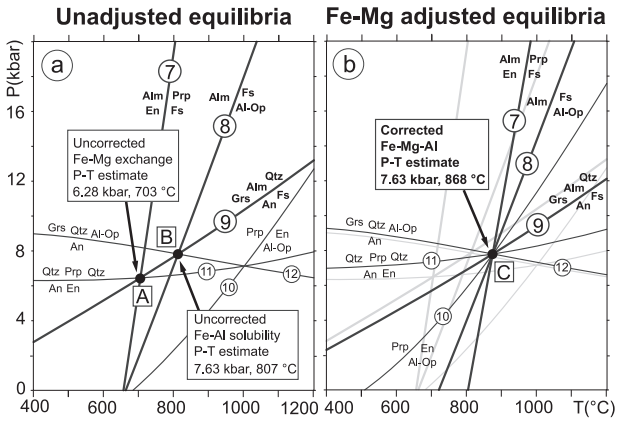

Fig. 1. This figure is the same as figure 3 of Pattison et al. (2003). (a) Plot showing the typical spread in equilibria for a natural Grt+Opx+Pl+Qtz granulite, sample PCFM-1 of Pattison et al. (2003; mineral compositions listed in table 4 of that paper; phases, system components, phase components and equilibria listed in table 3 of that paper). Of the six equilibria shown, only three are independent. The three chosen independent equilibria are indicated in bold. See text of Pattison *et al.* (2003) for further discussion of equilibria. (b) Same plot as in (a) except that the Fe–Mg ratios of Grt and Opx have been adjusted according to mass balance constraints so that all equilibria intersect at a point. See text of Pattison *et al.* (2003) for further discussion.

code is written in the PYTHON programming language.

RCLC was originally written by Tom Chacko and James Farquhar in 1996 and subsequently modified by Chris McFarlane, David Pattison and Tom Chacko between 1997 and 2002. The Web-based version of RCLC was developed by Justin Widney of the University of Alberta in 2018 as part of an undergraduate summer internship under the supervision of Tom Chacko.

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