**Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Whole-rock major oxide and trace element concentrations in serpentinites from North Aït Ahmane, geochemical reference materials and blanks (Sheet 1). Compilation of whole-rock REE concentrations in serpentinites and variably serpentinized peridotites from abyssal (including black smoker related serpentinites) and supra-subduction environments reported in the literature.

File Name: Supplementary Data 2

Description: Mineral chemistry of chlorites and associated thermometry for the North Aït Ahmane serpentinites.