

## Supporting Information

### The Effect of Stoichiometry, Mg-Ca Distribution, and Iron, Manganese, and Zinc Impurities on the Dolomite Order Degree: A Theoretical Study

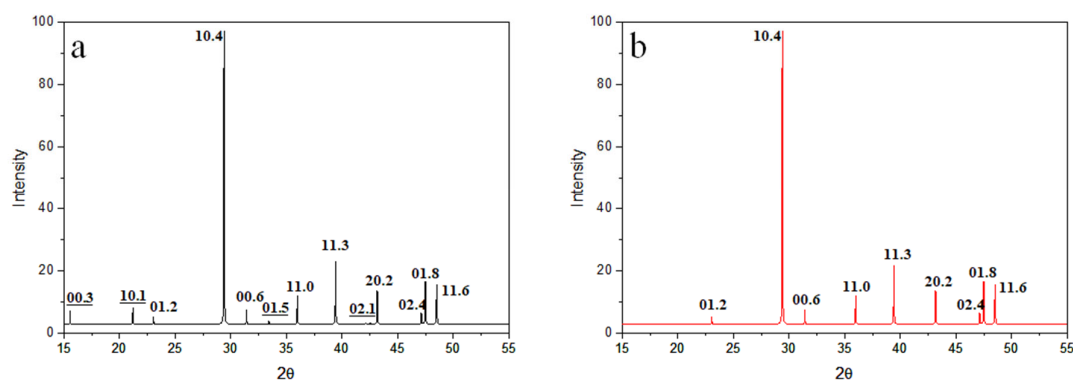
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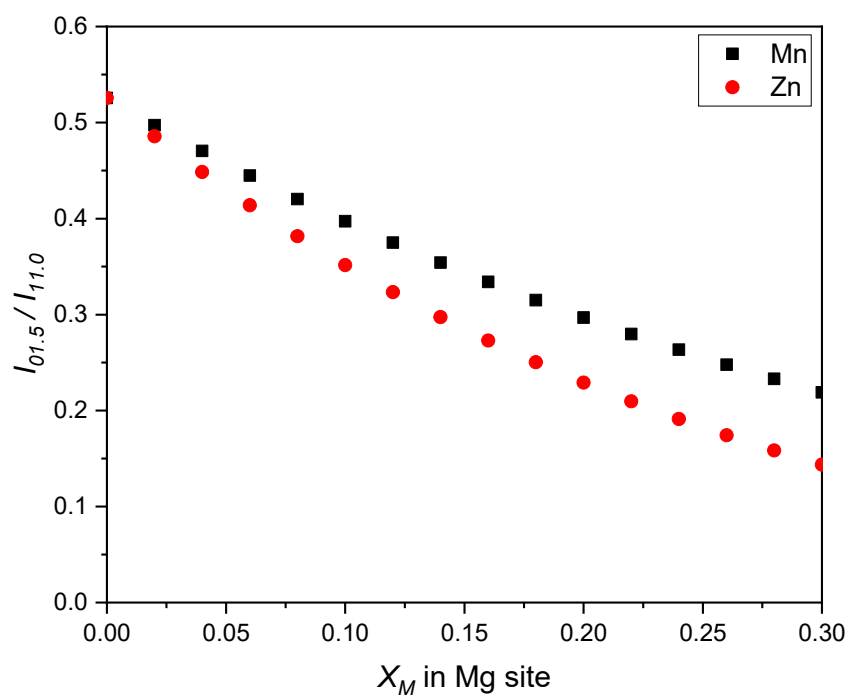
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**Figure S1.** Diffractograms calculated with the RIETAN-FP code (Izumi and Momma, 2007, [19]) for a stoichiometric dolomite structure: (a) fully ordered:  $x_{Mg} = 1$ ; (b) fully disordered:  $x_{Mg} = 0.5$ . In both diffractograms superstructure indexes appear underlined. Calculations have been conducted from a calcite structure (Maslen et al., 1995, [18]) as starting structure.



**Figure S2.**  $I_{01.5}/I_{11.0}$  versus  $X_M$  (M = Mn or Zn) for dolomites with Mn and Zn impurities in the Mg site.