

## **Synthetic Chrysotile: Effect of Foreign Ions on the Hydrothermal Synthesis**

Isidoro Giorgio Lesci<sup>a</sup>, Simone Ferrari<sup>b</sup>, Elisabetta Foresti<sup>a</sup>, Guido Fracasso<sup>a</sup>, Matteo Leoni<sup>c</sup>, Norberto Roveri<sup>a</sup>, <sup>a</sup>*Department of Chemistry “G.Ciamician”, University of Bologna, Italy.* <sup>b</sup>*Department of Earth Sciences, University of Modena – Reggio Emilia, Italy.* <sup>c</sup>*Department of Materials Engineering and Industrial Technologies, University of Trento, Italy.* E-mail: isidorogiorgio.lesci@unibo.it

Conventional and synchrotron radiation X-ray diffraction have been used to characterize chrysotile nano-crystals synthesized under bland hydrothermal conditions. In particular, the effects on the crystallization kinetics of the presence of Al, Fe and Ti species have been evaluated.

Studies were conducted both *in situ* using synchrotron radiation X-ray diffraction at the Daresbury Laboratory station 16.4 and *ex situ* on the material synthesized in a Parr 4652 laboratory reactor.

The synthesis of the material was obtained under conditions usually considered very bland to form complex silicates.

Chemical physical, structural and morphological characterization of the synthesized crystals allowed to know the role of the foreign ions on the observed materials features.

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