American Mineralogist, Volume 106, page 1536, 2021

Controls on tetrahedral Fe(III) abundance in 2:1 phyllosilicates—Reply

JAVIER CUADROS^{1,*}, JOSEPH R. MICHALSKI^{1,2}, AND M. DARBY DYAR³

¹Department of Earth Sciences, Natural History Museum, Cromwell Road, London SW7 5BD, U.K.
²Department of Earth Sciences and Laboratory for Space Research, University of Hong Kong, Hong Kong, China
³Department of Astronomy, Mount Holyoke College, South Hadley, Massachusetts 01075, U.S.A.

ABSTRACT

The model of Fe^{3+} distribution between octahedra and tetrahedra in dioctahedral smectites by Decarreau and Petit (2014) used data from infrared analysis. From their own and other general evidence, the resulting data are likely to be affected by significant uncertainty. This aside, their model has limited application because it is based on synthetic smectites containing only Si, Al, and Fe³⁺.

Keywords: Dioctahedral 2:1 phyllosilicates, Fe, tetrahedral Fe