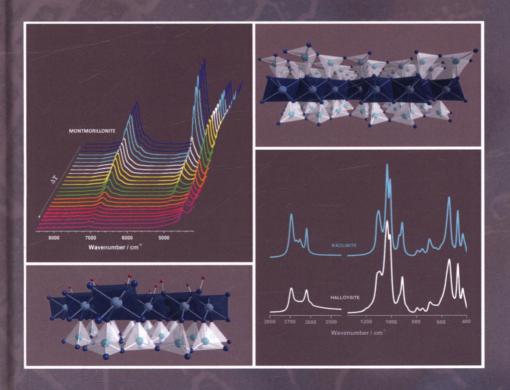


#### DEVELOPMENTS IN **CLAY SCIENCE** SERIES EDITOR: F. BERGAYA

# INFRARED AND RAMAN SPECTROSCOPIES OF CLAY MINERALS

EDITED BY

W. P. Gates, J.T. Kloprogge, J. Madejová, and F. Bergaya



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An up-to-date systematic review of spectroscopic theory, methods, and techniques for the study of clay minerals by infrared and Raman spectroscopies.

- · Includes a systematic review of spectroscopic methods
- · Covers the theory of infrared and Raman spectroscopies and instrumentation
- · Features a series of chapters, each covering either a particular technique or an application

Infrared and Raman Spectroscopies of Clay Minerals, Volume 8 in the Developments in Clay Science series, is an up-to-date overview of the spectroscopic techniques used in the study of clay minerals. The methods include infrared spectroscopy, covering near-IR (NIR), mid-IR (MIR), far-IR (FIR) and IR emission spectroscopy (IES), as well as FT-Raman spectroscopy and Raman microscopy. This book complements the succinct introductions to these methods described in the original Handbook of Clay Science (Volumes 1, 1st Edition and 5B, 2nd Edition), offering greater depth and featuring the most important literature since the development and application of these techniques to clay science. No other book covers such a wide variety of vibrational spectroscopic techniques in a single volume for clay and soil scientists

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GEOLOGY







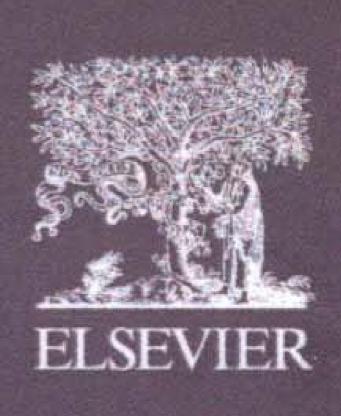
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GATES

EDITED BY

KLOPROGGE MADEJOVÁ BERGAYA

NERARED AND RAMAN SPEC TROSCOPIES OF CLAY MINERA



### Developments in Clay Science Volume 8

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# Infrared and Raman Spectroscopies of Clay Minerals

## **Dedication**

In loving memory of my son Andrew Olav Kloprogge
Feb. 2000–May 2016
J.T. Kloprogge

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