

PREFACE

The XVIIth Conference on Clay Mineralogy and Petrology was organized by the Czech National Clay Group together with Institute of Rock Structure and Mechanics of Academy of Sciences CR and Institute of Geology of Academy of Sciences CR and in cooperation with Faculty of Sciences Charles University and other institutions. Scientific sessions of the conference were held in Prague in Mineralogical Hall of the Faculty of Sciences on September 13-17, 2004.

The contributions were thematically subdivided into the following sections:

A - Clay sorbents and argillaceous barriers:

- A₁. The interaction of clays with water. Significance of the electrostatic theory for the clay mineral-water interface.
- A₂. Water film and pore water of clays.
- A₃. Swelling of clays.
- A₄. Transport of chemicals through clays. Cation-exchange behaviour of clay minerals in nature and man-made environments. (To the effectiveness of the isolation barriers.)
- A₅. Modified clays as sorbents and sealing materials.
- A₆. Expansible phyllosilicates with organic cations and their application as selective hydrophobic sorbents.
- A₇. The up-to-date information on the crystal structure and crystal chemistry of clay minerals: the theory for practical usage.

B - Other ecological themes.

C - Clay properties.

D - Mineralogy and geology of clays, soils etc.

E - Geochemistry of clays.

F - Methods of clay research.

The programme of the conference was enriched with two field trips:

- 1) In the morning: Geological-ecological excursion in Prague (on foot): Weathering of stones in buildings and statues of Prague's historical city core including the anthropological impacts.
- 2) In the afternoon: Geological excursion (by bus) to the Přední Kopanina quarry west of Prague, visit of the "Golden opuka" (= marly chert), which is the famous medieval stone used by builders and sculptors mainly in the 9th-15th centuries in Prague and Czech Lands.

This volume contains 20 papers of the 37 contributions presented in oral or poster form. As editors of this volume, we appreciate the assistance of Dr. Petr Bohdálék who corrected texts by authors whose native language is different from English. We also appreciate the cooperation with the Editorial Board of *Acta Geodynamica et Geomaterialia*, particularly that with RNDr. Vladimír Rudajev, DrSc., the editor-in-chief.

Editors are grateful to our and international reviewers for their critical and helpful comments improving the conference articles.

Martin ŠŤASTNÝ and Karel MELKA,
editors

Prague, May, 2005

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