

SPECIAL NOTICE: WEB PAPER

Nomenclature of the micas

MILAN RIEDER,¹ GIANCARLO CAVAZZINI,² YURII S. D'YAKONOV,³ VIKTOR A. FRANK-KAMENETSKII,* GLAUCO GOTTARDI, † STEPHEN GUGGENHEIM,⁴ PAVEL V. KOVAL,⁵ GEORG MÜLLER,⁶ ANA M.R. NEIVA,⁷ EDWARD W. RADOSLOVICH, ‡ JEAN-LOUIS ROBERT,⁸ FRANCESCO P. SASSI,² HIROSHI TAKEDA,⁹ ZDENEK WEISS,¹⁰ AND DAVID R. WONES[§]

Department of Geochemistry, Mineralogy and Mineral Resources, Charles University, Albertov 6, 128 43 Praha 2, Czech Republic (E-mail: Rieder@mbox.Cesnet.Cz)

²Dipartimento di Mineralogia e Petrologia, Università di Padova, Corso Garibaldi, 37, I-35122 Padova, Italy

³VSEGEI, Srednii pr., 74, 199 026 Sankt-Peterburg, Russia

⁴Department of Geological Sciences, University of Illinois at Chicago, 845 West Taylor Street, Chicago, Illinois 60607-7059, U.S.A.

⁵Institut geokhimii SO AN Rossii, ul. Favorskogo 1a, Irkutsk-33, Russia 664 033

⁶Institut für Mineralogie und Mineralische Rohstoffe, Technische Universität Clausthal, Postfach 1253, D-38670 Clausthal-Zellerfeld, Germany

⁷Departamento de Ciências da Terra, Universidade de Coimbra, Apartado 3014, 3049 Coimbra CODEX, Portugal

⁸Centre de Recherche sur la Synthèse et la Chimie des Minéraux, C.N.R.S., 1A, Rue de la Férolierie, 45071 Orléans CEDEX 2, France

⁹Chiba Institute of Technology, 2-17-1 Tsudanuma, Narashino City, Chiba 275, Japan

¹⁰Central Analytical Laboratory, Technical University of Mining and Metallurgy, Tr. 17. listopadu, 708 33 Ostrava-Poruba, Czech Republic

ABSTRACT

The Mica Subcommittee was appointed by the *Commission on New Minerals and Mineral Names of the International Mineralogical Association*. The definitions and recommendations presented were approved by the *Commission*.

The report discusses mica definition, subdivisions, principles of classification, end-member formulae, modifiers and suffixes, series names for incompletely investigated materials, and invalid names. The determination of the crystallochemical formula for different available chemical data is outlined, and a system of modifiers and suffixes is given to allow the expression of unusual chemical substitutions or polytypic stacking arrangements.

Formulas and permissible ranges of composition are given for the following valid true, brittle, and interlayer-cation-deficient micas:

Micas	Diocahedral		Triocahedral	
True	aluminoceladonite boromuscovite celadonite chromphyllite ferro-aluminoceladonite ferroceldadonite	muscovite nanpingite paragonite roscoelite tobelite	annite aspidolite eastonite ephesite hendricksite masutomilite montdorite norrishite	phlogopite polyolithionite preiswerkite siderophyllite tainiolite tetra-ferri-annite tetra-ferriphlogopite trilithionite
Brittle	chernykhite margarite		anandite bityite	clintonite kinoshitalite
Interlayer-deficient	brammallite glauconite	illite	wonesite	

Tables of mica synonyms and varieties, ill-defined materials and mixtures, and a list of names formerly or erroneously used for micas are presented.

The complete report is available on the American Mineralogist web site (<http://www.minsocam.org/AmMin/ammin.html>). Click on Special Features.

*Russia; deceased 1994.

†Italy; deceased 1988.

‡Australia, resigned 1986.

§U.S.A.; deceased 1984.