

HIGH-TEMPERATURE
ANNEALING OF PbMoO₄ CRYSTALS
OF A NON-STOICHIOMETRIC COMPOSITION

*T. M. Bochkova, M. D. Volnyanskii, D. M. Volnyanskii,
V. S. Shchetinkin*

Dnipropetrovsk National University
(13, Str. Nauchnaya, 49050 Dnipropetrovsk;
e-mail: tbochkova@hotmail.com,mdvoln@ff.dsu.dp.ua)

S u m m a r y

The optical transmittance spectra of PbMoO₄ single crystals grown by the Czochralski technique with deviations from the stoichiometric relation of components are investigated. The change of the spectra as a result of high-temperature annealing of the crystals in air atmosphere is considered. It is assumed that optical adsorption in the 23000 cm⁻¹ area arises due to the formation of Pb³⁺ hole centers and the adsorption bands with maxima near 25000 cm⁻¹ and 16000–17000 cm⁻¹ are connected with the existence of Mo⁵⁺ ions.