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ORDER-DISORDER PHENOMENA AND MÖSSBAUER LINE BROADENING

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INVESTIGATION OF THE PHASE TRANSITION IN PHTHALOCYANINE USING THE MÖSSBAUER EFFECT

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Résumé. — L'effet Mössbauer a été utilisé pour étudier la transition de phase à proximité de la température ambiante d'une solution solide de phthalocyanine sans métal (H_2Pc) et de phthalocyanine contenant du fer ($FePc$) : $9 H_2Pc-1 FePc$, transition qui est semblable aux transitions de phase ferroélectriques. La dépendance thermique des paramètres du spectre Mössbauer entre -160 et $+160$ °C est également donnée. Les résultats obtenus sont discutés et comparés avec les données de la résonance γ dans $FePc$.

Abstract. — The Mössbauer effect has been used for investigation of the phase-transition in the region of the room temperature in a solid solution of metal-free H_2Pc and iron phthalocyanine $FePc$: $9 H_2Pc-1 FePc$, showing properties, similar to the ferroelectric phase transitions. The temperature dependences of the parameters of the Mössbauer spectrum in the range -160 – $+160$ °C are given as well. The results from the investigation were discussed and compared with the data from γ -resonance in $FePc$.

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SOME ASPECTS OF STRUCTURE AND LATTICE DYNAMICS OF TOURMALINS AND BORACITES STUDIED BY MÖSSBAUER EFFECT