

## CONTENTS

## REVIEW

*Fedorov P. P., Yarotskaya E. G.*  
Zirconium dioxide. Review

169

## ORIGINAL ARTICLES

*Akhmetkhanov R. M., Chernova V. V.,  
Shurshina A. S., Lazdina M. Yu., Kulish E. I.*  
Study of the formation of structures in solutions  
of chitosan – polyvinyl alcohol polymer blends

188

*Bui Xuan Vuong, Nguyen Anh Tien*  
Sol-gel synthesis, crystal structure and magnetic  
properties of nanocrystalline praseodymium  
orthoferrite

196

*Vasil'ev M. G., Vasil'ev A. M., Izotov A. D.,  
Kostin Yu. O., Shelyakin A. A.*  
Growing epitaxial layers of InP/InGaAsP  
heterostructures on the profiled InP surfaces  
by liquid-phase epitaxy

204

*Grigoryan G. S., Solodukha A. M.*  
Anomalous behaviour of dynamic electrical  
conductivity in semiconductor ferroelectric  
ceramics near the phase transition temperature

212

*Dokhov M. P.*  
On the limitations of the applicability  
of Young's equations temperature

218

*Kozlov G. V., Magomedov Gas. M.,  
Magomedov Gus. M., Dolbin I. V.*  
The structure of carbon nanotubes  
in a polymer matrix

223

*Kolesnikov A. V., Ageenko E. I.*

Features of the discharge of zinc in the  
background solution of sodium sulphate  
under stirring conditions

229

*Mammadli P. R., Gasymov V. A., Dashdiyeva G. B.,  
Babanly D. M.*

Phase relations in the CuI-SbSI-SbI<sub>3</sub>  
composition range of the Cu-Sb-S-I  
quaternary system

236

*Mittova V. O., Khoroshikh A. O., Zemchenkova O. V.,  
Ryazantsev S. V., Maslov O. V., Korzh E. V.,  
Ryasnaya-Lokinskaya L. S., Alabovsky V. V.*

Gender differences in lipid metabolism

245

*Myslitskaya N. A., Tcibulnikova A. V., Samusev I. G.,  
Slezhkin V. A., Bryukhanov V. V.*

Heat wave dynamics in frozen water droplets  
with eosin molecules under the femtosecond  
excitation of a supercontinuum

260

*Orujlu E. N., Aliev Z. S., Jafarov Y. I., Ahmadov E. I.,  
Babanly M. B.*

Thermodynamic study of manganese tellurides  
by the electromotive force method

273

*Syrkov A. G., Kabirov V. R., Pomogaybin A. P.,  
Ngo Quoc Khanh*

Electrophilic-nucleophilic properties  
as a factor in the formation of antifriction  
and hydrophobic properties of surface-modified  
metals with ammonium and organosilicon  
compounds

282