

## Contents

Complex impedance spectra of $\text{TiInS}_2(10\%C)$ compound irradiated by $\gamma$ -quantum <b>O.A. Samadov, Kh.B. Orucova, A.I. Najafov, N.M. Mehdiyev, R.N. Mehdiyeva, S.F. Samadov, M.N. Mirzayev</b> .....	5
Effect of radiation, different types chlorine and sulfate salts on the dynamics of nitrate reductase and carbonic anhydrase enzymes activities changes during the ontogeny of cotton plants <b>H.G. Babayev, Sh.E. Alakbarova, H.A. Abiyev, E.S. Jafarov</b> .....	10
Environmental problems caused by groundwater contaminated with radionuclides and chemical toxic substances <b>L.Y. Jabbarova, S.A. Kazimova</b> .....	20
Impact of radioactive contamination on the genetic apparatus of some plants <b>I.Y. Fridunbeyov</b> .....	31
Investigation of oxide layer formation on the surface of radiation thermally treated beryllium <b>T.N. Agayev, F.N. Nurmammadova</b> .....	35
Investigation of structural change of HDPE/ $\alpha$ - $\text{Fe}_2\text{O}_3$ composite system modified by gamma rays by the Infrared-Fourier spectroscopy <b>N.Sh. Aliyev, M.N. Bayramov, M.M. Guliyev, R.S. Ismayilova, A.A. Nabiye</b> .....	40
Polarization effects in quadrupole radiation <b>I.G. Afandiyeva, R.A. Ahmedov</b> .....	45
Study of the transverse component of the momentum vector of charged pions and protons in $p^{12}$ +C interactions at the momentum of incident protons with 4.2GeV/c <b>Y.H. Huseynaliyev</b> .....	50
The effect of gamma quanta on the ionic and electron conductivity of $\text{TiInS}_2(10\%C)$ compound <b>O.A. Samadov, Kh.B. Orujova, A.I. Najafov, N.M. Mehdiyev, R.N. Mehdiyeva, T.I. Karimova, G.M. Ismayilova</b> .....	56
The use of high efficiency thermoelectric materials to transfer a heat to electricity <b>Y.H. Huseynaliyev, L.Y. Huseynaliyeva</b> .....	63
Multipole radiations in direct nuclear reactions <b>S.G. Abdulvahabova, T.O. Bayramova</b> .....	68