

CONTENTS

Size effects in radiation-catalytic processes of water decomposition and perspectives of use of nanocatalysts in this field A.A. Garibov.....	5
Radiation stability of bituminous oils and its tar fraction I.I.Mustafayev, S.F.Aliyeva-Cicek, N.G.Guliyeva, R.S.Rzayev.....	14
Radiation-chemical transformation of synthetic oil from oil-bituminous rock L.Y. Jabbarova, I.I. Mustafaev Z.O. Nabizade, R.S. Rzayev, N.A. Ibadov.....	22
Influence of radiation and thermal annealing on electro-physical properties of Ge _{1-x} Si _x films R.S.Madatov, Sh.M.Abbasov, U.F.Faradjova.....	27
New alpha particle counter based on micro-pixel avalanche photodiode F.Ahmadov, G.Ahmadov, N.Anfimov, A.Garibov, E.Guliyev, Z.Krumshtein, R.Madatov, A.Olshevski, A.Sadigov, Z. Sadygov, A. Titov.....	33
Superionic conductivity and specific effects induced by γ -radiation in nanofibrous A ³ B ³ C ⁶ ₂ type crystals R.M. Sardarly, O.A. Samedov, A.P. Abdullayev, R.Sh. Aqayeva, F.T. Salmanov, N.A. Aliyeva, A.A. Orujova.....	37
Nanostructured materials based on nano-ZrO ₂ in the nuclear-power engineering A.A.Garibov, T.N.Agayev, G.T.Imanova.....	50
Influence of temperature and density of water vapor on the yield of molecular hydrogen in the presence of radium-silicate A.A.Garibov, T.N.Agayev, Z.A.Mansimov, K.T.Eyyubov.....	57
Defect formation in borosilicates by a resistance method at γ -quantum irradiation A.A.Garibov, S.Z.Melikova, Sh.S.Ismailov.....	61
Studying the role of disulfochloride benzene in unsaturated elastomers S.M.Mammadov, S.A.Rzayeva, T.F.Gojayeva, A.A.Garibov, A.I.Azadaliyev, J.S.Mammadov, E.M.Aliyev, S.Z.Malikova.....	64
Comparative study of the radioprotective properties of extracts of calendula, chamomile and milfoil E.N.Shamilov, A.S.Abdullayev, I.A.Rzayeva, Z.H.Muslumova, I.V.Azizov.....	72
Study of radiation degradation of phenol in aqueous solution by UV spectroscopy..... U.A.Gulieva, M.A.Gurbanov, H.M.Mahmudov	76