

## CONTENTS

<b>I. Angeli:</b> Manifestation of non-traditional magic nucleon numbers in nuclear charge radii .....	7
<b>G. Balogh, I. Szabó:</b> Stress dependent rotated magnetic field BHN measuring .....	13
<b>L. Csedreki:</b> Systematic investigation of the $^{12}\text{C}(d, p\gamma)^{13}\text{C}$ reaction around 1450 keV deuteron energy – a proposed method for accelerator energy calibration .....	21
<b>L. Csige, D.M. Filipescu, J. Gulyás, M.M. Günther, D. Habs, H.J. Karwowski, A. Krasznahorkay, G.C. Rich, M. Sin, P.G. Thirolf:</b> Photofission of light actinides induced by new generation, quasi monochromatic, highly-intense $\gamma$ beams .....	31
<b>Zs. Danku and F. Kun:</b> Bursts in a fiber bundle model of creep rupture ..	43
<b>R. Derco:</b> Simple analytic expressions for the pole parts of double virtual correction to $e^+e^- \rightarrow 3$ partons .....	49
<b>E. Fenyvesi:</b> Examination of an edge weighted network created from data of Couchsurfing .....	57
<b>P. Herczku, Z. Juhász, N. Stolterfoht, S.T.S. Kovács, R. Rcz, S. Biri and B. Sulik:</b> Surface conductivity and charge migration on the inner capillary wall .....	67
<b>J. Kovács, S. Nagy, K. Sailer:</b> On optimization of the functional renormalization group applied to the quantized anharmonic oscillator ....	77
<b>S.T.S. Kovács, P. Herczku, Z. Juhász, B. Sulik:</b> Fragmentation of $\text{H}_2\text{O}$ and $\text{CH}_4$ molecules induced by 650 keV $\text{N}^+$ projectiles .....	87

<b>I. Major, M. Molnar, A.J.T. Jull, M. Veres:</b> Pre-treatment of archaeological bone samples for $^{14}\text{C}$ measurement in the Hertelendi Laboratory .....	95
<b>G. Molnár, G. Erdélyi, G. A. Langer, A. Csík, G. Katona, L. Daróczi, M. Kis-Varga, A. Dudás, D. L. Beke:</b> Diffusion in Pd-Cu thin films .....	109
<b>G.U.L. Nagy, I. Rajta:</b> Creation of microcapillaries by P-Beam writing using different proton energies .....	121
<b>G. Pál, I. Varga, T. Kadono, and F. Kun:</b> Effect of spatial dimension on impact fragmentation .....	129
<b>A. Papp, J. Csikai:</b> Use of neutron albedo to detect plastic explosives ....	137
<b>B. Parditka:</b> Phase growth analysis in metal silicides .....	151
<b>J. Rácz, I. Nándori, J. Halász, P. F. de Châtel:</b> Anisotropic magnetic nanoparticles - more effective hyperthermia for cancer therapy?.....	163
<b>S.S. Shenouda, G.A. Langer, A. Csik, G.L. Katona, D.L. Beke:</b> Investigation of solid state reactions between $\text{Ni}_2\text{S}_3$ nanocrystalline film and Si substrate .....	175
<b>L. Stuhl, A. Krasznahorkay, M. Csatlós, T. Adachi, H. Fujita, Y. Fujita, A. Algora, J. Gulyás, J. Daeven, E. Estevez-Aguado, C. J.Guess, K. Hatanaka, K. Hirota, D. Ishikawa, E. Litvinova, T. Marketin, H. Matsubara, R. Meharchand, F. Molina, H. Okamura, H.J. Ong, G. Perdikakis, B. Rubio, C. Scholl, T. Suzuki, G. Susoy, A. Tamii, J. Thies, R. Zegers, J. Zenihiro:</b> ( $^3\text{He,t}$ ) reactions on $^{40}\text{Ca}$ nucleus, investigation of soft SDR resonances .	185
<b>T.G. Tornyi, J. Gulyás, A. Krasznahorkay, M. Csatlós, L. Csige, R.A. Bark, N.A. Kondratyev, L.V. Kondratyeva:</b> Mass distribution of the fission fragments following the decay of hyperdeformed states in $^{236}\text{U}$ .....	195
<b>Zs. Török:</b> Determination of beam parameters at the new in-air micro-beam setup in ATOMKI .....	203
<b>R. Trencsényi:</b> Some interesting remarks related to phase diagrams of polyphenylene structures .....	213