

ANUL LIV

2009

**S T U D I A**  
**UNIVERSITATIS BABEȘ-BOLYAI**  
**CHEMIA**

**1**

---

**Desktop Editing Office:** 51<sup>ST</sup> B.P. Hasdeu Street, Cluj-Napoca, Romania, Phone + 40 264-405352

---

**CUPRINS – CONTENT – SOMMAIRE – INHALT**

MIRCEA-VASILE CRISTEA, ADINA LUCREȚIA GHIRIȘAN, Professor Eng. Liviu Literat Phd.....	5
List of Publications .....	9
PETRE T. FRANGOPOL, D. ALLAN CADENHEAD, MARIA TOMOAIACOTIȘEL, AURORA MOCANU, Procaine Effects on Surface Topography of Spread Dipalmitoyl Phosphatidylcholine Monolayers .....	23
BARBU RADU HORAȚIU MIȘCA, DORIN IOAN MANCIULA, Some Aspects Regarding Microwave Drying of Materials .....	37
ZOLTÁN TÖRÖK, NICOLAE AJTAI, ALEXANDRU OZUNU, Chemical Risk Area Estimation as a Tool for Efficient Emergency Planning .....	49
LÁSZLÓ SZÉLL, VALENTINA CETEAN, TÓTH ANIKÓ, GAGEA LUCIA, ROMAN CECILIA, ROMAN MARIUS, GOG ADRIANA, Power Plants Ashes Recovery in Eco-Friendly Mortar Compositions.....	59

ELIANA JARA-MORANTE, MIHAELA-HILDA MORAR, PAUL ȘERBAN AGACHI, Heat Integration of an Industrial Fluid Catalytic Cracking Plant.....	69
CĂLIN-CRISTIAN CORMOȘ, ȘERBAN PAUL AGACHI, Gasification Process – A Practical Way for Solid Fossil Fuels Decarbonisation .....	81
VICTORIA GOIA, ADINA-LUCREȚIA GHIRIȘAN, VASILE-MIRCEA CRISTEA, Sedimentation Simulation of Coagulated Yeast Suspensions from Wastewater .....	93
CĂLIN IOAN ANGHEL, IOAN LAZĂR, Case Study of Structural Safety Based on Artificial Intelligence .....	103
LAURA ARDELEAN, MARIA GOREA, ELENA CICAL, ANGELA MICHNEA, Soil and Spring Water Pollution in Two Protected Natural Areas in Maramureș District.....	115
VASILE MIRCEA CRISTEA, RALUCA ROMAN, PAUL ȘERBAN AGACHI, Simulation of the Reactor-Regenerator-Main Fractionator Fluid Catalytic Cracking Unit Using Artificial Neural Networks .....	125
ANA-MARIA CORMOȘ, FIRUȚA GOGA, JOSEPH GASPAR, DAN IRIDON, Software Application for Obtaining Ceramic Glazes with Pre-Definite Composition and Properties.....	133
ANDRA TĂMAȘ, ZENO GROPȘIAN, ROMULUS MINEA, Magnetic Fluids – Materials with Remarkable Applications .....	143
IOAN BALEA, MARIA TOMOAI-COTIȘEL, OSSY HOROVITZ, GHEORGHE TOMOAI, AURORA MOCANU, The Influence of Solid Surface on the Adsorption of Anti-C1q Monoclonal Antibody at Isoelectric pH.....	151
DANA SILAGHI-PERJU, HARIETA PÎRLEA, GHEORGHÎȚA JINESCU, GABRIELA-ALINA DUMITREL, DELIA PERJU, NO <sub>2</sub> Dispersion Process Simulation in Urban Areas by Analytical-Experimental Methods .....	165
ANIELA ELENA VIZITIU, MIRCEA V. DIUDEA, Cluj Polynomial Description of TiO <sub>2</sub> Nanostructures .....	173
MIREL GLEVITZKY, DELIA PERJU, GABRIELA-ALINA DUMITREL, MARIA POPA, MIHAELA LAURA VICĂ, Water Activity – Indicator of Food Safety and the Factors that Influence the Biochemical Stability of Soft Drinks.....	181
SILVANA IANOȘEV, RADU LAZĂU, MARIANA SUBA, CORNELIA PĂCURARIU, IOAN LAZĂU, Synthesis and Characterization of Some Thermoresistant Pigments Based on the Al <sup>3+</sup> → Cr <sup>3+</sup> Substitution.....	189
MIRELA SMARANDOIU, IOAN MAMALIGA, STELIAN PETRESCU, Mass Transfer in Sublimation Process .....	203
SOARE GHEORGHE, Molecular Dynamics Simulation of the Heat Transfer by Natural Convection.....	215

IONUȚ BANU, SORIN BÎLDEA, GRIGORE BOZGA, JEAN-PIERRE PUAUX, Simulation of a Polymerization Laminar Flow Reactor .....	227
ALEXIA BONNIFET, DELIA GLIGOR, CASTELIA CRISTEA, LIANA MARIA MUREȘAN, Electrochemical Behavior and Applications of Phenothiazine Derivatives Based on <i>Bis</i> -(10 <i>h</i> -Phenothiazin-3-YI)-Methane.....	243
NICOLAE HAR, MARIA GOREA, MARCEL BENEĂ, Mineralogy of Degradation Processes Affecting the Mortar from Buru Dam (Arieșului Valley, Cluj County) .....	253

Studia Universitatis Babes-Bolyai Chemia has been selected for coverage in Thomson Reuters products and custom information services. Beginning with V. 53 (1) 2008, this publication will be indexed and abstracted in the following:

- Science Citation Index Expanded (also known as SciSearch®)
- Chemistry Citation Index®
- Journal Citation Reports/Science Edition