

STUDIA UNIVERSITATIS BABEȘ-BOLYAI CHEMIA

1

EDITORIAL OFFICE: Republicii no. 24, 400015 Cluj-Napoca ♦ Phone 0264-40.53.52

SUMAR - CONTENTS - SOMMAIRE - INHALT

C. G. ILEA, S. DORNEANU, A. IMRE, P. ILEA, Reticulated vitreous carbon (RVC) electrode reactor for copper ions removal from dilute solutions	3
R. SILAGHI-DUMITRESCU, I. SILAGHI-DUMITRESCU, Discontinuum between ferrous-superoxo and ferric-peroxo in heme $[\text{FeO}_2]^9$ complexes?	11
R. SILAGHI-DUMITRESCU, "High-valent" ferryl-oxo complexes: how "high" are they really?	17
M. TOMOAIA-COTISEL, V.-D. POP, G. TOMOAIA, A. MOCANU, C. RACZ, C.-R. ISPAS, O. PASCU, O. C. BOROSTEAN, Atomic force microscopy studies of Langmuir-Blodgett films. 4. The influence of aluminium substrate on dipalmitoyl phosphatidylcholine nanolayers	23
M. TOMOAIA-COTISEL, C. RACZ, G. TOMOAIA, C. FLOARE, R. TÖTOS, L. BOBOS, O. PASCU, A. DUMITRU, Molecular structure and monolayer properties of some carotenoids	39
G. TOMOAIA, M. TOMOAIA-COTISEL, C. RACZ, C.-R. ISPAS, C. FLOARE, Langmuir kinetics and adsorption mechanism at the oil/water interface	47
A. MOCANU, G. TOMOAIA, C. FLOARE, R. TÖTOS, O.-C. BOROSTEAN, M. TOMOAIA-COTISEL, Thermodynamic approach on specific interactions in lipid and carotenoid nanofilms	59
S. A. SPINEAN, G. L. TURDEAN, I. C. POPESCU, Biosensor for amperometric detection of catechol based on mushroom tissue and a methylene green-nafion modified electrode	67
S. DRAGAN, M. DRAGAN, Theoretische beschreibung der kristallisation aus überkritischen gasen in poröser matrix	75
S. DRAGAN, M. DRAGAN, Experimental study of dry desulphurization process with calcium oxide. Characterization of calcium oxide structure	89
A. GHIRISAN, A. POP, M. MOCEANU, V. MICLAUS, Sedimentation. Koagulation. Flocculation. II. Anwendung polymerer flockungsmittel	97
A. POP, A. GHIRISAN, S. DRAGAN, Beschreibung des hydrodynamischen models des druckverlustes durch eine katalysatorschicht	105
A. GHIRISAN, M. AZAD, Sedimentation und flockung der hefesuspension	113

V. MICLAUS, I. BROS, Z. MOLDOVAN, C. CIMPOIU, E. SURDUCAN, N. PALIBRODA, The identification by MS and GC/MS of photodegradation products of Indomethacin ointment.....	121
M. STAN, M. LANG, A. SAVALL, K.-G. SERANO, E. WEISS, M. JITARU, Voltammetric investigation of some food and textile dyes	129
M. JITARU, L. R. MANDOC, C. MIHAI, O. TUDORAN, Electrochemical behavior of phenols in aqueous solution – fundamentals for their electrochemical degradation in waste waters	137
M. SOCOL, I. BALDEA, An alternative application of flow graph theory in chemistry, pharmacokinetics and chemical engineering processes	143
G.-C. BUCSE, I. BALDEA, Kinetics and mechanism of p-xylene oxidation by Ce(IV) in aqueous acid medium. LFER as an argument to the oxidation mechanism.....	157
L. VLASE, I. BALDEA, S. LEUCUTA, L. RUS, L. COPOLOVICI, Kinetic study on Omeprazole acid reaction at different pH values by using HPLC.....	169
L. M. MURESAN, C. ISVORANU, Composite carbon electrode with enhanced stability based on polyaniline incorporating prussian blue for amperometric detection of H ₂ O ₂	175
T. FRENTIU, M. PONTA, E. DARVASI, M. URSU, M. SENIL, E. CORDOS, Comparative study of digestion procedures of soils and water sediments using different HCl/HNO ₃ ratios for multielemental determination.....	183
M. PONTA, T. FRENTIU, E. DARVASI, A. BONDA, E. CORDOS, Environmental and occupational exposure to Cr, Cu, Pb and Zn of population in Baia-Mare using as index the absorption of contaminants in hair.....	193
C. BERGHIAN, N. PLE, A. TURCK, M. DARABANTU, First report on 3,7-dioxar-1-azabicyclo[3.3.0]oct-c-5-ylmethoxy system substituting s-triazine.....	201
M. PINTEA, M. DARABANTU, M. FAZEKAS, P. LAMEIRAS, C. BERGHIAN, I. DELHOM, C. BELE, N. PLE, First synthesis, rotamerism and herbicidal evaluation of substituted s-triazines with serinolic fragments (I): open-chain structures.....	209
M. FAZEKAS, M. DARABANTU, M. PINTEA, P. LAMEIRAS, C. BELE, C. BERGHIAN, N. PLE, First synthesis, rotamerism and herbicidal evaluation of substituted s-triazines with serinolic fragments (II): amino-1,3-dioxanes of (1S, 2S)-p-nitrophenylserinols.....	219
J. BODIS, L. BODIS, J. A. LERCHER, Mass transfer rate during three phase catalytic reductive amination over supported noble metals	229
R. GROPEANU, T. PANEA, I. PANEA, Synthesis and structure assignment of some new alkyl-(10H-phenothiazin-3-yl)-carbonates	237
R. GROPEANU, A. WOICZECHOWSKI-POP, M. TINTAS, R. TURDEAN, I. GROSU, Synthesis and stereochemistry of a new series of 2,2'-disubstituted-5,5-bis(bromomethyl)-1,3-dioxanes.....	247
B. R. H. MISCA, Is it possible to apply unitary mathematical treatment to fluid flow?	253
E. M. RUS, G. TARALUNGA, D. M. CONSTANTIN, Electrochemical behaviour of OLT-35 low carbon steel in alkaline (1M KOH) aqueous solution	261
G. TARALUNGA, CS. BOLLA, E. M. RUS, D. M. CONSTANTIN, Electrochemical power sources with RbAg ₄ I ₅	271
C. CORMOS, A.-M. CORMOS, S. AGACHI, Modeling and simulation of the carbonation process of ammoniacal brine using CHEMCAD	277
A.-M. CORMOS, C. CORMOS, A. FRIEDL, S. AGACHI, Modeling and simulation of the scrubbing unit waste incineration plant.....	289
S. RADA, I. SILAGHI-DUMITRESCU, Structural, energetic and electronic properties of pure/doped BN nanotubes	297