

CONTENTS OF VOLUME 65

NUMBER 1

Physical Chemistry

A. N. Pankratov: Use of semiempirical quantum chemical approaches in computation of molecular dipole moments of tropones and tropolones.....	1
A. Terlecki-Baričević, S. Petrović, D. Jovanović, Lj. Karanović and C. Marinova: Characterization and carbon monoxide oxidation activity of La _{1-y} Sr _y Cr _{1-x} Ru _x O ₃ perovskites	15
W. Ferenc and A. Wolków-Dziewulska: Complexes of light lanthanides with 2,4-dimethoxybenzoic acid.....	27
N. U. Perišić-Janjić, J. D. Janjić and M. Lazarević: A spectrophotometric study of the protonation processes of some <i>N</i> -[1-(benzimidazol)-1-yl]methylbenzamide derivatives	37
<i>Electrochemistry</i>	
M. Avramov-Ivić, V. Kapetanović, M. Aleksić and P. Zuman: Electroreduction of cefetamet on mercury platinum and gold electrodes	47
B. M. Petrović and T. M. Kostić: The properties of chromium electrodeposited with programmed currents. Part I. Direct current.....	55
B. M. Petrović and T. M. Kostić: The properties of chromium electrodeposited with programmed currents. Part II. Reversing current.....	63
P. Živković, J. Pješčić and S. Mentus: Corrosion behaviour of an AlZnSnSrGa alloy in aqueous solution of NaCl and Na ₂ SO ₄	71

NUMBER 2

Organic Chemistry and Biochemistry

N. Valentić, G. Ušćumlić and M. Radojković-Veličković: Effects of substituents on the electronic absorption spectra of 3- <i>N</i> -(4-substituted phenyl)-5-carboxy uracils in different solvents. Part II	81
S. Husinec and V. Savić: The synthesis of some unsaturated 4-substituted-γ-lactones.....	87
I. M. El-Deen and M. E. Abd El-Fattah: Synthesis and biological activity of some heterocyclic compounds containing quinoxaline and coumarin moieties.....	95
S. Sukdolak, S. Solujić-Sukdolak and Lj. Krstić: Microbiological transformation of a synthetic benzofuran type lactone	103
P.I. Premović, I.R. Tonsa, D.M. Djordjević and M.S. Pavlović: Air oxidation of the kerogen/asphaltene vanadyl porphyrins: an electron spin resonance study.....	113
D. Filipović, M. Radočić and B.H. Milosavljević: Determination of the critical molar mass of ovalbumin oligomers degraded by ultrasound.....	123
M. Janković: Isolation and characterization of galectin-1 binding proteins from human placenta	131
V. Marinović and M. Čuperlović: Investigation of prostate specific antigen glycosylation (Short communication).....	141

NUMBER 3

Organic Chemistry

<i>L. G. Bondarenko-Gheorghiu, Lj. B. Lorenc and M. Lj. Mihailović:</i> Lead tetraacetate oxidation of the Diels-Alder adduct of 7-dehydrocholesteryl acetate with maleic anhydride	147
<i>M. Vučković, M. Radojičić and B. H. Milosavljević:</i> Inter-protein bonding and other molecular interactions in hen egg white	157
<i>Inorganic Chemistry</i>	
<i>T. J. Sabo and S. R. Grgurić:</i> The preparation and characterization of <i>uns-cis</i> -(ethylenediamine- <i>N,N'</i> -di-3-propionato)(<i>N</i> -alkylethylenediamines)cobalt(III) complexes	167
<i>B. Adnadjević and J. Jovanović:</i> An investigation of the effects of a silicalite type zeolite on PDMS-composites.....	173
<i>Physical Chemistry</i>	
<i>J. Radić-Perić and M. Markičević:</i> The formation of boron, silicon and calcium containing molecular species in a graphite furnace in Ar/O ₂ mixtures	181
<i>V. V. Vodnik and J. M. Nedeljković:</i> Influence of negative charge on the optical properties of a silver sol	195
<i>Lj. Trifković and G. A. Milovanović:</i> Investigation of the effect of organic solvents on kinetic parameters in metal catalyzed reactions.....	201

NUMBER 4

Biochemistry

<i>S. Trivić and V. Leskovac:</i> Structure and function of yeast alcohol dehydrogenase (Review) ..	207
<i>P. I. Premović, G. S. Nikolić, M. P. Premović and I. R. Tonsa:</i> Fourier transform infrared and electron spin resonance examinations of kerogen from the Gunflint stromatolitic cherts (Middle Precambrian, Ontario, Canada) and related materials	229
<i>Physical Chemistry</i>	
<i>U. B. Mioč, J. M. Dimitrić Marković and J. M. Baranac:</i> A study of the IR spectra of copigments formed by malvin chloride with flavones	245
<i>M. G. Pješčić, D. S. Veselinović, V. P. Komnenić and I. V. Drašković:</i> An investigation of the Fe ³⁺ -sulphonated pyrogallol system in aqueous solutions	255
<i>S. Marinković, A. Kostić-Pulek and M. Đuričić:</i> The products of selenite hydrothermal treatment in lithium chloride solutions	265
<i>M. Danková, E. Makrlík and P. Vanura:</i> Extraction of calcium from water into nitrobenzene using strontium dicarbollylcobaltate in the presence of 18-crown-6 (Short communication)	275

NUMBER 5-6

Professor Slobodan V. Ribnikar - On the occasion of his 70th birthday	281
<i>N. Juranić, Z. Zolnai and S. Macura:</i> Two-dimensional exchange spectroscopy revisited: Accounting for the number of participating spins	285
<i>M. Kurepa and J. Jureta:</i> Iodine molecule covalent excited states as determined by the threshold electron spectrometry	303
<i>Lj. Damjanović, G. D. Stucky and V. I. Srđanov:</i> Magnetism of F centers; indication of an antiferromagnetic phase transition in potassium-electro-sodalite	311
<i>M. R. Todorović, I. Holclajtner-Antunović, V. A. Miličević and R. P. Mihajlović:</i> Contribution to a study of organic solvent addition on trace determination by FAAS	315
<i>M. Tripković, M. Todorović, I. Holclajtner-Antunović, S. Ražić, A. Kondić and D. Marković:</i> Spectrochemical determination of lead in wines	323
<i>R. P. Mihajlović, V. M. Kaljević, R. M. Džudović, Z. D. Stanić and Lj. V. Mihajlović:</i> An atomic absorption spectrometric method for the determination of phosphorus in foodstuffs using the bismuth phosphomolybdate complex	331
<i>M. Medenica, D. Ivanović and A. Malenović:</i> Simultaneous determination of compounds in Septalen pellets by derivative spectrophotometry	339
<i>V. Vasić, S. Premović, M. Čakar, B. Radak and G. Milovanović:</i> Spectrophotometric investigations of the reaction between gold(III) and potassium iodide	345
<i>J. B. Nikolić, G. S. Ušćumlić and V. V. Krstić:</i> Solvent effects on electronic absorption spectra of cyclohex-1-enylcarboxylic and 2-methylcyclohex-1-enylcarboxylic acids	353
<i>Š. S. Miljanić and D. D. Golobočanin:</i> A simplified approach to the vibrational self-relaxation of simple molecules through convolution of their velocities	361
<i>Lj. Bogunović, U. B. Mioč, B. Ž. Jovanović and I. O. Juranić:</i> Infrared study of some 2-substituted-6-hydroxy-4-pyrimidine carboxylic acids. Correlation with MO-calculations	371
<i>G. N. Ostojić, B. B. Radak and Lj. T. Petkovska:</i> A frequency stabilized waveguide CO ₂ -laser for photoacoustic spectroscopy of gases	381
<i>A. Golubović, R. Gajić, S. Nikolić, S. Đurić and A. Valčić:</i> The optical properties of LiNbO ₃ single crystals	391
<i>U. B. Mioč, M. R. Todorović, S. Uskoković-Marković, Z. P. Nedić and N. S. Bošnjaković:</i> The spectroscopic investigation of 12-tungstophosphoric acid alkali salts	399
<i>U. B. Mioč, M. Todorović, S. Uskoković-Marković, Z. Nedić, V. Stamenković and T. Čajkovski:</i> Structural modifications of Cu(II) 12-tungstophosphoric acid salt studied by IR and Raman spectroscopy	407
<i>B. Minčeva-Šukarova, L. Andreeva, Lj. Pejov and V. Petruševski:</i> Vibrational and quantum theoretical study of the host-guest interaction in clathrates: I. Hofmann type clathrates	417
<i>T. M. Vasiljević, M. D. Laušević and R. E. March:</i> Mass spectrometry analysis of polychlorinated biphenyls: chemical ionization and selected ion chemical ionization using methane as a reagent gas	431
<i>D. S. Belić and P. Defrance:</i> Separation of ions with same charge to mass ratio from a collision experiment	439
<i>Š. S. Miljanić, N. N. Stjepanović and M. S. Trtica:</i> An attempt to use a pulsed CO ₂ laser for determination of radioactive metal surfaces	445
<i>M. Dj. Ristić, S. Degetto and T. Ast:</i> Determination of americium-241 in sediments by gamma spectroscopy	451

NUMBER 7

Analytical Chemistry

- G. V. Popović, L. B. Pfendt and V. M. Stefanović: Analytical application of derivative spectrophotometry (Review)..... 457

- M. Jelikić-Stankov, D. Stankov and S. Paunović: Determination of cholesterol in human serum by an enzymatic method with the application of DAOS reagent 473

Organic Chemistry and Biochemistry

- S. Ž. Drmanić, B. Ž. Jovanović and M. M. Mišić-Vuković: The kinetics of the reactions of 6-substituted nicotinic acids and some *p*-substituted benzoic acids with diazodiphenylmethane in various alcohols 481

- Z. Marković, B. Šolaja, D. Milić, I. Juranić and M. Gašić: Molecular orbital study of the oxidation of steroid phenols into quinols and epoxyquinols 491

- M. Miljković and M. Habash-Marino: Synthesis of higher sugars as precursors for the synthesis of chiral polyhydroxylated macrocyclic lactones 497

- Lj. Vujišić, D. Krstić and J. Vučetić: Chemical aspect of the influence of cobalt ions on ATPase activity 507

Physical Chemistry

- G. Josifov, D. Lukić, N. Đurić and M. Kurepa: Total, direct and dissociative electron impact ionization cross sections of the acetylene molecule 517

- V. Petruševski, V. Ivanovski and M. Najdoski: FT-IR reflection spectra of single crystals: Resolving phonons of different symmetry without using polarised radiation (Short communication)..... 529

Inorganic Chemistry

- T. J. Sabo and S. R. Trifunović: Synthesis and characterization of *meridional* isomer of *uns-cis*(ethylenediamine-*N,N'*-di-3-propionato)(*S*-norleucanato)cobalt(III) semi hydrate (Note)..... 537

NUMBER 8

Organic Chemistry

<i>M. S. Bjelaković, V. D. Pavlović, Lj. Lorenc, B. Tinant and J.-P. Declercq:</i> The crystal structure of 14-oxo-13, 14-seco-5 α -cholest-13(18)-en-3 β -yl acetate and the assignment of the configuration of its acetoxy derivatives.....	541
<i>A. V. Teodorović, M. D. Joksović, S. K. Konstantinović, J. N. Milovanović and B. M. Mojsilović:</i> Valine-mediated borane reduction of ketones.....	549
<i>N. T. Manojlović, S. Solujić, S. Sukdolak and Lj. Krstić:</i> Isolation and antimicrobial activity of anthraquinones from some species of the lichen genus <i>Xanthoria</i>	555
<i>P. I. Premović, D. M. Djordjević, I. R. Tonsa, L. López, S. Lomonaco, M. S. Pavlović, M. V. Veljković and O. M. Nešković:</i> The vanadium isotopic constitution of petroleum asphaltenes: La Luna Formation (Venezuela).....	561

Physical Chemistry

<i>J. H. Koolen, V. Moulton, I. Gutman and D. Vidović:</i> More hyperenergetic molecular graphs	571
<i>I. Gutman and Ž. Tomović:</i> On the application of line graphs in quantitative structure-property studies (Note).....	577
<i>E. Makrlik and P. Vanura:</i> Contribution to the thermodynamics of 1-(2-thiazolylazo)-2-naphthol in the water-nitrobenzene extraction system (Note).....	581

Analytical Chemistry

<i>Lj. N. Jakšić, R. M. Džudović, R. P. Mihajlović and Z. D. Stanić:</i> Coulometric titrations of bases in propylene carbonate and γ -butyrolactone using hydroquinone as the depolarizer and a quinhydrone indicator electrode.....	585
<i>S. M. Mitić, J. I. Vučetić, S. M. Miletić and D. A. Kostić:</i> Kinetic determination of Se(IV) in pharmaceutical samples	593

Biotechnology

<i>G. Gojgić-Cvijović, I. Karadžić and J. Vučetić:</i> Effects of methyl oleate and tween 80 on the antibiotic productivity and the fatty acid composition of the total lipids of <i>Streptomyces hygroscopicus</i> CH-7.....	603
Erratum	609

NUMBER 9

Physical Chemistry

<i>A. Golubović, R. Gajić, C. Chen and A. Valčić:</i> The optical properties of bismuth germanium oxide single crystals.....	611
<i>L. Arman-Zubić, N. Perišić-Janjić and M. Lazarević:</i> A study of the behaviour of some substituted 1,2,4-triazoline-3-thiones in different media	619
<i>M. Aleksić, S. Blagojević, D. Malešev and Z. Radović:</i> A spectrophotometric investigation of the complex between titanyl oxalate and 3-hydroxyflavone in water ethanolic mixtures.	631
<i>M. N. Govedarica:</i> Activity of some disiloxanes toward the cation exchange resin-catalyst in the siloxane equilibration reaction (Short communication).....	639
<i>O. Ćudina, S. Vladimirov, D. Živanov-Stakić and D. Agbaba:</i> Spectrophotometric determination of fluocortolone in tablets using 1,4-dihydrazinophthalazine (Note).....	645

Electrochemistry

<i>V. Panić, A. Dekanski, S. Milonjić, R. Atanasoski and B. Nikolić:</i> The effect of the presence of alcohol in the dispersing phase of oxide sols on the properties of RuO ₂ -TiO ₂ /Ti anodes obtained by the sol-gel procedure	649
---	-----

<i>M. V. Simićić and K. I. Popov:</i> Zinc electrodeposition from alkaline zincate solution by pulsating overpotentials.....	661
<i>V. Vojinović, V. Komnenić, M. Pješčić and S. Mentus:</i> Electrochemical behaviour of copper in <i>N,N</i> -dimethylformamide + 0.5 M potassium perchlorate solution	671

NUMBER 10

Organic Chemistry

<i>E. A. Djurendić, G. Gy. Vastag, T. M. Surányi, M. M. Popsavin and K. M. Penov Gaši:</i> Synthesis of some bis- and mono-2-hydroxybenzoic acid derivatives and the determination of their acidity constants	681
---	-----

<i>K. Bowden and G. P. Stevens:</i> An alternative synthesis of clindamycin.....	691
--	-----

Physical Chemistry

<i>K. Jankovska, L. Šoptrajanova and I. Spirevska:</i> Protonation of maleic and fumaric acid in aqueous sulfuric acid solutions	695
--	-----

<i>S. Blagojević, N. Pejić, S. Anić and Lj. Kolar-Anić:</i> Belousov-Zhabotinsky oscillatory reaction. Kinetics of malonic acid decomposition.....	709
--	-----

<i>A. Daković, M. Tomašević-Čanović, V. Dondur, A. Vučaković and P. Radošević:</i> Kinetics of aflatoxin B ₁ and G ₂ adsorption on Ca-clinoptilolite.....	715
---	-----

<i>T. J. Janjić, G. Vučković and M. B. Ćelap:</i> Influence of the stationary and mobile phase composition in ideal chromatographic system on the log k values in column chromatography. I. ODS/methanol-water-system.....	725
--	-----

<i>T. J. Janjić, G. Vučković and M. B. Ćelap:</i> Application of the Log k pair linearity rule and Proportionality rule to the RPP mobile phase scales estimation on diol-silica-column	733
---	-----

<i>J. Petković, I. Mladenović, N. Vukelić, M. Mojković and G. Bačić:</i> Lanthanide doped alkaline metal sulphates as candidates for EPR dosimetry.....	743
---	-----

Chemical Engineering

<i>A. Moise and R. Z. Tudose:</i> An experimental study of the drying of granular materials in a packed bed passed by hot air. The local humidity of the material.....	755
--	-----

NUMBER 11

Organic Chemistry

<i>M. Milovanović, K. Picurić-Jovanović, M. Djermanović, V. Djermanović and M. Stefanović:</i> Sesquiterpene lactones and monoterpane glucosides from plant species <i>Picris echoides</i>	763
--	-----

<i>M. M. Dabović, I. J. Petrović, N. M. Krstić and Lj. B. Lorenc:</i> Peracids oxidation of cholesta-5,8-dien-3β-yl acetate.....	769
--	-----

<i>H. R. Maradiya and V. S. Patel:</i> Synthesis of monoazo disperse dyes based on 2-amino heterocycles and their dyeing performance on nylon fabrics	773
---	-----

<i>L. Pfendt, G. Popović, M. Kostić, Lj. Stevović, B. Drakulić and I. Juranić:</i> Determination and structural correlation of pK _a values of <i>p</i> -substituted <i>trans</i> -2,3-epoxy-4-oxo-4-phenylbutanoic acids	781
---	-----

Inorganic Chemistry

<i>W. Ferenc and A. Walków-Dziewulska:</i> Spectrochemical and thermal behaviours of the 2,4- and 3,4- dimethoxybenzoates of rare earth elements.....	789
---	-----

<i>I. Gutman, Y. Hou, H. B. Walikar, H. S. Ramane and P. R. Hampiholi:</i> No Hückel graph is hyperenergetic.....	799
---	-----

<i>M. Filipović and N. Kilibarda:</i> Calculation of complex chemical equilibrium composition of composite rocket propellants combustion products.....	803
--	-----

<i>M. M. Ačanski, S. M. Petrović, V. M. Pejanović and J. A. Petrović:</i> Correlation between retention and C-18 silica gel surface coverage in reversed-phase liquid chromatography....	811
Electrochemistry	
<i>N. D. Nikolić, K. I. Popov, Z. Rakočević, D. R. Djurović, M. G. Pavlović and M. Stojanović:</i> The structure of bright zinc coatings.....	819
Chemical Engineering	
<i>G. T. Vladisavljević, S. Brösel and H. Schubert:</i> Characterization of water-in-oil emulsions produced with microporous hollow polypropylene fibers	829

NUMBER 12

Organic Chemistry

<i>J. B. Nikolić, G. S. Ušćumlić and V. V. Krstić:</i> Reactivity of cyclohex-1-enylcarboxylic and 2-methylcyclohex-1-enylcarboxylic acids with diazodiphenylmethane in aprotic solvents	839
<i>S. Ž. Drmanić, B. Ž. Jovanović and M. M. Mišić-Vuković:</i> A comparative LFER study of the reactivity of pyridineacetic, pyridineacetic acids <i>N</i> -oxide and substituted phenylacetic acids with diazodiphenylmethane in various alcohols.....	847
<i>M. L. Mićević and S. D. Petrović:</i> The alcoholysis of 1,2,2-trimethylpropyl-methylfluorophosphonate.....	857
<i>K. Novaković, L. Katsikas and I. G. Popović:</i> The thermal degradation of poly(<i>iso</i> -butyl methacrylate) and poly(<i>sec</i> -butyl methacrylate).....	867

Physical Chemistry

<i>J. M. Jelić, A. Ž. Tasić, B. D. Djordjević and S. P. Šerbanović:</i> Use of the SSF equations in the Kojima-Moon-Ochi thermodynamic consistency test of isothermal vapour-liquid equilibrium data	877
<i>V. D. Živanović, N. S. Blagojević, S. R. Grujić, Lj. Č. Karanović and B. R. Božović:</i> The devitrification of PbO-B ₂ O ₃ -ZnO glass doped with Li ₂ O.....	891
<i>M. D. Kukoljac and D. K. Grozdanić:</i> New values of the polarity factor (Note).....	899

Electrochemistry

<i>K. I. Popov and R. M. Stevanović:</i> A new current line division concept for the determination of the current distribution in electrochemical cells. Part I. Theoretical background of the “corner weakness” effect in electroforming.....	905
<i>T. R. Vidaković, M. L. Avramov-Ivić and B. Ž. Nikolić:</i> The influence of 2-propanol on the reaction of formaldehyde electrooxidation or <i>vice versa</i> on gold (100) and (111) single crystal planes in alkaline medium	915

<i>V. B. Mišković-Stanković, J. B. Bajat, M. D. Maksimović and Z. M. Kačarević-Popović:</i> The effect of Zn-Ni sublayers in the corrosion behaviour and thermal stability of epoxy coatings electrodeposited on steel	923
<i>P. M. Živković, S. Jovanović, K. I. Popov and N. Ilić:</i> Modification of the aluminium for making offset printing plates (Note).....	935

Chemical Engineering

<i>M. Petkovska:</i> Non-linear frequency response of non-isothermal adsorption controlled by micropore diffusion with variable diffusivity	939
<i>Ž. B. Grbavčić, Z. Lj. Arsenijević and R. V. Garić-Grulović:</i> Drying of suspension and pastes in fluidized bed inert particles.....	963
Erratum.....	975
Contents of volume 65	977
Subject index	985
Author index.....	989