DCC-42 (Univ. Zagreb)

Croat. Chem. Acta CCACAA 46 (4) B1—B2 (1974)

The Sulphur-34 and Deuterium Isotope Effects in the Decomposition of Sulphones

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Reaction between phenyl sulphone and sulphur was studied in the melt, at various temperatures, and SO_2 production was measured.

The kinetics in nitrogen atmosphere was studied at 243, 262, 288, and 297 °C and the corresponding first order rate constants, $k \times 10^6$ s^{-1}, were found to be 5.21 ± 0.12, 19.2 ± 0.3, 120 ± 1.00, 209 ± 9.00, respectively (uncertainties are standard deviations).

Using the technique of least squares the energy of activation was found to be 41 ± 1.00 kcal mol^{-1}, the frequency factor 1.00×10^{12} s^{-1}, and entropy of activation -7.00 cal mol^{-1} K^{-1}.

The sulphur-34 isotope effect was found to be 0.43% at 243 °C. The value of the sulphur-34 isotope effect was corrected, because of the reduction process, and it amounted to 0.87%. The maximum sulphur-34 isotope effect for decomposition of the hypothetical C-S molecule was calculated to be 1.07% at the same temperature. The experimental value of the sulphur-34 isotope effect indicated appreciable C-S bond weakening in the transition state, and suggested the dissociation as the rate determining step.

The decomposition of cyclic sulphones was also studied at various temperatures, and SO_2 produced in the reaction was measured.

The kinetic data were used to determine the energy of activation, frequency factor and entropy of activation as 33.2 kcal mol^{-1}, 7.10×10^{14} s^{-1}, and 7.00 cal mol^{-1} K^{-1}, respectively, which is in good agreement with literature data.

The sulphur-34 isotope effect was determined in the decomposition of 2,5-dihydrothiophene-1,1-dioxide in the melt and was found to be 0.97% at 99.5 °C.

The α-deuterium isotope effects were measured in the decomposition of 2,5-dihydrothiophene-2,2,5,5-d_4-1,1-dioxide at 120 °C and 2,4-dimethyl-2,5-dihydrothiophene-5,5-d_2-1,1-dioxide at 105 °C in the melt and they amounted to 9.4 and 5.4%.

The value of α-deuterium isotope effects and the value of sulphur-34 isotope effects indicates the concerted mechanism of this reaction, which is one example of a retro Diels-Alder reaction, as it was also predicted by the Woodward-Hoffman rules.

The thesis was partly published in: *J. Org. Chem.* **36** (1971) 3845 and *J. Org. Chem.* **37** (1972) 1745.

Examiners: Prof. S. Ašperger, Prof. D. Sunko, and Dr. N. Trinajstić.
Oral examination: July 6, 1971.
Degree conferred: October 28, 1971.

The thesis deposited in the University Library and Faculty of Pharmacy and Biochemistry, University of Zagreb.
(144 pages, 22 tables, 6 figures, 173 references, original in Croatian).

D. HEGEDIĆ

DCC-42 (Univ. Zagreb)

1. The Sulphur-34 and Deuterium Isotope Effects in Decomposition of Sulphones

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Decomposition of sulphones
Isotope effects,
—, deuterium
—, sulphur-34
Sulphones, decomposition of

DCC-43 (Univ. Zagreb)

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Investigation of Topological Properties of Conjugated Hydrocarbons

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Using the mathematical apparatus of graph theory several properties of conjugated hydrocarbons were analyzed.

Upper and lower bounds for the total π-electron energy were determined. The structure of the molecular graph is related to the energy by applying the loop rule. Several approximate expressions for energy are obtained.

The relation between the number of Kekulé structures and the determinant and permanent of the adjacency matrix is found both for alternant and non-alternant hydrocarbons.

The class of graphs representing benzenoid hydrocarbons is rigorously defined and a number of theorems is proved for this class. It is shown that the Ruedenberg and Pauling bond orders are identical, a formula of Heilbronner is improved and a relation between the coefficients of the non-bonding MO and VB spin density is found. Strict limits of validity of all these results are given.

Rules governing the π-electron charge distribution in non-alternant hydrocarbons are given.

Rules which govern the change of the energy difference between the highest occupied and lowest unoccupied MO in a ring closure transformation are determined. An invariant of the number of bonding, non-bonding and antibonding MO's is proposed which can serve for a rough classification of conjugated hydrocarbons.

Parts of this work were published in: *Chem. Phys. Lettt.* **16** (1972) 614; **17** (1972) 535; **20** (1973) 257; **24** (1974) 283; *Croat. Chem. Acta* **45** (1973) 423, 539; *J. Chem. Phys.* **59** (1973) 2772; **61** (1974) in press; *Tetrahedron* **20** (1973) 3449; *Naturwissenschaften* **60** (1973) 475; *Z. Naturforsch.* **29 b** (1974) 80.

Examiners: Prof. M. Mirnik, Dr. D. Cvetković, Prof. N. Trinajstić, and Prof. Z. Maksić

Oral examination: December 22, 1973.

Dissertation deposited at the University Library Zagreb and Institute »Ruđer Bošković«.

(120 pages, 112 references, original in Croatian)

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DCC-43 (Univ. Zagreb)

1. Investigation of Topological Properties of Conjugated Hydrocarbons

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Conjugated hydrocarbons
Graph theory
Hückel theory
Molecular orbitals
Topology

DCC-44 (Univ. Zagreb)

Croat. Chem. Acta CCACAA 46 (4) B5—B6 (1974)

The Study of Medium Influence upon Inhibitory Effect of Amines on Electrode Processes at the Mercury Electrode

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Detailed research by means of DC- and AC-polarographic methods have been made to find out the influence of the kinds and concentration of acid, of technically important amines, aniline and cyclohexylamine at the dropping mercury electrode in the solution of perchloric, sulphuric and phosphoric acid. As indicating ions, the ions of cadmium and lead have been used.

The results of the research show that examined amines more inhibit the electrode process of cadmium and that the inhibition of electrode reaction depends on concentration of amines. Also, cyclohexylamine is a stronger inhibitor than aniline in electrode reactions of both used cations.

The degree of inhibition of studied amines, depending on medium, increases in sequence:

perchloric medium < sulphatic medium << phosphatic medium and decreases with decreasing ionic strength of medium.

The kinetic measurements indicate the dependence of rate of electrode processes on pH in the absence of amines as well as in their presence. The measured rate constant shows that by decreasing of pH the reversibility of electrode process increases with higher ionic strength, while at lower ionic strength with decreasing pH, it increases. The rate constants of electrode processes are also influenced by the change in ionic strength. Decreasing of the concentration of supporting electrolyte decreases the rate constants.

Examiners: Prof. I. Filipović, Prof. I. Piljac, Prof. B. Lovreček, and Prof. M. Mirnik.

Oral examination: March 14, 1974;

Degree conferred: April 26, 1974;

Thesis deposited at University Library, Zagreb and Faculty of Technology, University of Zagreb, 41000 Zagreb, Croatia.

(236 pages, 53 tables, 47 figures, 183 references, original in Croatian)

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DCC-44 (Univ. Zagreb)

1. The Study of Medium Influence upon Inhibitory Effect of Amines on Electrode Processes at the Mercury Electrode

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AC-polarography
—, inhibition studies with
—, kinetic studies with
Amines
Aniline
Cadmium
Cyclohexylamine
DC-polarography
Inhibition of electrode reactions
Inhibitory effect
Kinetics electrode reactions
Lead

DCC-45 (Univ. Zagreb)

Croat. Chem. Acta CCACAA 46 (4) B7—B8 (1974)

Investigation of the Electrode Processes on the Mercury in Aqueous Solutions of Cadmium(II) and Complexones of EDTA Type

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As a model for metal-ligand interaction in natural aqueous systems the interaction between cadmium and complexones: nitrilotriacetic acid (NTA), ethylenediaminetetraacetic acid (EDTA), diethylenetriaminepentaacetic acid (DTPA), which form stable and inert chelates of $z = -1$, -2 and -3 charge at pH = 8, has been investigated. The mechanism of the electrochemical reduction of chelates has been determined comparing their polarographic behaviour.

The parameters of electrochemical reduction of Cd(II)-NTA chelate have been determined in aqueous solutions of pH = 8: $D = (5.1 \pm 0.4) \times 10^{-6}$ cm^2 s^{-1}, $z = -1$, $k_e^o = 1.3$ and 0.9×10^{-4} cm s^{-1} in 0.1 M NaCl and 0.1 M KCl, respectively, $k_t^o = 0.161$ and 0.125 cm s^{-1}. The dissociation rate constant and the apparent stability constant were determined in various supporting electrolytes, *e. g.* in 0.03 M $CaCl_2$ ($\mu \approx 0.1$ M) $k_d = 1.6 \pm 0.4$ s^{-1}, log K_{CdX} = = 5.85; correction of the latter gives log $(K_{CdX})_{corr} = 10.73$.

Polarographic limiting current of Cd(II)-EDTA chelate at pH = 8 is controlled by chemical reaction kinetics which precedes the electrode reaction and depends on concentration, kind and charge of the cations of the supporting electrolyte. The method for the investigation of the ionic pair formation in the bulk of the solution has been applied and the charge of the reducible species has been determined as $z = -2$.

Adsorption of EDTA anion on the mercury electrode has been investigated by means of capillary electrometer, streaming mercury electrode and a. c. bridge. It has been determined that the adsorption of the anion of di- and trisodium salt of EDTA occurs only in the potential range more positive than the electrocapillary maximum.

Cd(II)-DTPA chelate at pH = 9 (most probable charge $z = 3$) is not reduced within the polarographic potential range. Polarographic behaviour of Cd(II)-DTPA at pH = 6 (most probable charge $z = -2$) is similar to that of Cd(II)-EDTA at pH = 8. This confirms the proposed reduction mechanism of Cd(II)-EDTA, by which irreversible reduction of divalent anion is accelerated by preceding chemical reaction with the cations of the supporting electrolyte, the result of which is the formation of electroactive species of lower charge and energy of activation. Due to the larger concentration of the cations of the supporting electrolyte (Boltzmann distribution law) preceding chemical reaction most probably takes place in the electrical double layer on the outer Helmholtz plane.

Examiners: Dr. M. Branica, Prof. I. Filipović, Prof. M. Herak.

Oral examination: April 1, 1974.

(262 pages, 26 tables, 91 figures, 157 references, original in Croatian)

B. HERENDA-RASPOR

DCC-45 (Univ. Zagreb)

1. Investigation of the Electrode Processes on the Mercury in Aqueous Solutions of Cadmium (II) and Complexones of EDTA Type

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Cadmium(II)
—, complexes with complexones
—, electrode processes of
Complexones, EDTA type
—, adsorption on mercury
—, complexes with cadmium(II)
Electrochemistry
—, of cadmium(II)-complexones complexes

DCC-46 (Univ. Zagreb)

Croat. Chem. Acta CCACAA 46 (4) B9—B10 (1974)

Hydroxytryptamines — the Synthesis and General Metabolism in Mammals

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For biological investigations β-hydroxytryptamine and β-hydroxyserotonin were synthesized as crystalline, water soluble, creatinine sulphates.

The general metabolism of these compounds was investigated by using rat liver slices and the obtained metabolites were identified as corresponding indole-3-glycolic acids and indole-3-ethane diols. For this scope also 5-hydroxyindole-3-ethane diol, so far undescribed, was synthesized.

The relative rates of deamination of synthesized β-hydroxylated tryptamines were measured in the Warburg respirometer by using rat liver mitochondria as the source of monoamine oxidase and compared with the rates of deamination of β-nonhydroxylated tryptamines. At pH = 7.4 and final substrate concentration of 0.66×10^{-3} M it was found that the rates of deamination of β-hydroxylated tryptamines were lower than the rates of deamination of β-nonhydroxylated tryptamines.

The synthesized compounds were examined for four types of pharmacological activity: effect on smooth muscle *in vitro*, blood pressure, spontaneous respiration, and the resistance of respiratory pathways *in vivo*. It was found that β-hydroxylated tryptamines show similar, although weaker biological activity than β-nonhydroxylated tryptamines. The only difference is the pressor activity of β-hydroxytryptamine, which is identical with the activity of tryptamine.

The thesis was partly published in: *Croat. Chem. Acta* **44** (1972) 303.

Examiners: Dr. S. Kveder, Dr. A. Deljac and Prof. Z. Supek

Oral examination: May 8, 1974.

Dissertation deposited at the University Library, Zagreb, and Institute »Ruđer Bošković«, Zagreb.

(80 pages, 7 tables, 13 figures, 93 references, original in Croatian).

V. PLAVŠIĆ

DCC-46 (Univ. Zagreb)

1. β-Hydroxytryptamines — the Synthesis and General Metabolism in Mammals

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β-Hydroxytryptamine creatinine sulphate, synthesis of
—, determination of general metabolism
—, pharmacological activity of
β-Hydroxyserotonin creatinine sulphate, synthesis of
—, determination of general metabolism
—, pharmacological activity of

DCC-47 (Univ. Zagreb)

Croat. Chem. Acta CCACAA 46(4) B11—B12 (1974)

N.m.r. Studies of the Equilibration of Phosphonium Salts and Phosphoranes

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The interconversion between phosphonium salt and phosphorane was studied by n.m.r. methods.

$$(ArO)_3\overset{+}{P}CH_3 + {}^-OAr \rightleftharpoons (ArO)_4PCH_3$$

$$Ar = \underset{I}{C_6H_5}, \quad \underset{II}{o\text{-}CH_3—C_6H_4}, \quad \underset{III}{p\text{-}CH_3—C_6H_4}$$

The equilibrium constant for the reaction of each salt with aryloxide to give the phosphorane was found to be very large and its value could not be determined by the method used. Line shape analysis of the spectra provided rate constants for the dissociation of phosphoranes I—III. *Ortho-* and *para-* methyl group substitution in the ring influences the dissociation rates only by a small extent. The *p-* substituted phosphorane, III, dissociates faster than phosphorane I, presumably due to electronic stabilization of the developing phosphonium ion. The *o*-substituted phosphorane II, however, dissociates more slowly than phosphorane I, most likely because of steric hindrance to solvation.

Methyltetra(2,6-dimethylphenoxy)phosphorane, IV, was synthesized, too. It was found that the P—CH_3 protons exchange with deuterium in $CDCl_3$ solutions, indicating the existence of some phosphonium ylid.

$$(ArO)_4PCH_3 \rightleftharpoons (ArO)_3\overset{+}{P}CH_3 + {}^-OAr \rightleftharpoons (ArO)_3\overset{+}{P}—\overset{-}{C}H_2 + HOAr$$

$$ArO^- = \text{2,6-dimethylphenoxy}$$

At low temperatures the ring methyl groups of phosphorane IV cease to be n.m.r. equivalent and two separate signals ($\Delta\,\delta = 0.69$) of equal intensities are observed at —57 °C. The temperature dependent n.m.r. behavior of phosphorane IV was shown, by comparison with that of dimethyltri(o-cresoxy)phosphorane, V, to be due to slow pseudorotation; the latter compound, V, was synthesized to allow this comparison. The steric crowding in the trigonal bipyramid of the »2,6-dimethylphenoxy« phosphorane seems to be large enough to account for this behavior. This is the first example for restricted pseudorotation of a tetraoxyphosphorane.

A part of this work was reported at the 2nd IUPAC Conference on Physical Organic Chemistry, Noordwijkerhout, the Netherlands, May 1974.

Examiners: Prof. D. E. Sunko, Prof. F. H. Westheimer, Prof. C. F. Wilcox, Jr.

Oral examination: June 18, 1974.

Thesis deposited at the University of Zagreb, Faculty of Natural Sciences and Mathematics, and at the Rugjer Bošković Institute, Zagreb. *(144 pages, 5 tables, 35 figures, 126 references, original in English with a detailed summary in Croatian).*

I. SZELE

DCC-47 (Univ. Zagreb)

1. N.m.r. Studies of the Equilibration of Phosphonium Salts and Phosphoranes

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N.m.r. spectra, line shape analysis of
Phosphonium salts
Phosphoranes, pentacovalent
Pseudorotation, inhibited

MCC-65 (Univ. Zagreb)
Master of Science Thesis

Croat. Chem. Acta CCACAA (46) B13—B14 (1974)

The Sulphur-34 Isotope Effect in the Reaction of 2-Phenylethyldimethylsulphonium Bromide with Sodium Ethoxide in Ethyl Alsohol and the Reduction of the Sulphonium Salt with Lithium Aluminium Hydride

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The reaction of 2-phenylethyldimethylsulphonium bromide with sodium ethoxide was studied in ethyl alcohol solution. In the reaction dimethylsulphide was produced, this was then oxidized by oxygen at 1000 °C to sulphur dioxide.

The sulphur-34 isotope effect was measured and it was found to be 1.26% at 20.1 °C. The maximum sulphur-34 isotope effect in the reaction of sulphonium salts for breaking C—S bond was calculated to be from 1.51 to 1.57% at 25 °C.

The experimental results show that the sulphur-34 isotope effect in the ethyl alcohol solution is about 2/3 the theoretical, but in the correlation with the value of the sulphur-34 isotope effect in the aqueous solution it can be concluded that both sulphur-34 isotope effects are the same, which means that the solvent has no influence on the mechanism of the reaction. The experimental value of the sulphur-34 isotope effect indicated the concerted mechanism of this reaction.

In studying the reaction of deuterated trimethylsulphonium bromide with lithium aluminium hydride, methane was isolated, and analysed by mass spectrometry. The mass spectrum contained an intense mass of 19 units corresponding to CHD_3, but no detected methane of the formula CH_2D_2. This experimental result suggests that possibly simple displacement is occurring:

$$[H_3AlH^-] \quad CD_3\text{-}S^+(CD_3)_2 \longrightarrow H_3Al + CHD_3 + S(CD_3)_2$$

as the reaction mechanism.

The thesis was partly published in: *J. Org. Chem.* 33 (1968) 2526.

Examiners: Prof. S. Ašperger, Dr. S. Borčić, and Prof. H. Iveković.

Oral examination: February 15, 1967.

The thesis deposited at University Library and Faculty of Pharmacy and Biochemistry, University of Zagreb

(80 pages, 3 tables, 5 figures, 87 references, original in Croatian).

D. HEGEDIĆ

MCC-65 (Univ. Zagreb)

1. The Sulphur-34 Isotope Effect in the Reaction of 2-Phenylethyldimethylsulphonium Bromide with Sodium Ethoxide in Ethyl Alcohol and the Reduction of the Sulphonium Salt with Lithium Aluminium Hydride

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Isotope effects, ^{34}S
2-Phenylethyldimethylsulphonium bromide,
—, reaction with sodium ethoxide
—, reduction with LAH
Sulphur-34, isotope effect

MCC-66 (Univ. Zagreb)
Master of Science Thesis

Croat. Chem. Acta CCACAA 46 (4) B15—B16 (1974)

Study of the Cyclization of 2-(3-Butenyl)-2-cyclohexenyl Derivatives

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The aim of this work was to obtain additional information on the mechanism of nonenzymic biogenetic-like olefinic cyclization. The following compounds were prepared: 2-(3-butenyl)-3-methyl-2-cyclohexenyl *p*-nitrobenzoate (Ia), 2-(3-butenyl)-3-methyl-2-cyclohexenyl-1-d_1 *p*-nitrobenzoate (Ib) and 2-(3-butenyl)-3-methyl-1-methyl-d_3-2-cyclohexenol (II).

Solvolysis of Ia in 97% 2,2,2-trifluoroethanol (TFE) gave about 34% of cyclic products, but solvolysis of this ester in 80% ethanol gave exclusively non-cyclic products. The secondary α-deuterium isotope effect in the solvolysis of Ib in 97% TFE is slightly decreased ($k_H/k_D = 1.14$).

The study of the cyclization of alcohol II in anhydrous formic acid confirmed Johnson's hypothesis which implies the formation of a resonance stabilized cation as intermediate.

On the basis of obtained results a cyclization mechanism of 2-(3-butenyl)-2-cyclohexenol derivatives, including the formation of a cationic intermediate with a resonance stabilized allylic cation, can be proposed. Using the INDO SCF MO method, the energies of different conformers of the 3-methyl derivative of the cited cation were calculated in order to predict the products that are formed in the cyclization process. The results showed that of the two possible effects, *i. e.* steric and electronic, the first is the predominant one, resulting in the formation of cyclic products without an angular methyl group. This result is in accordance with the proposed cyclization mechanism, which does not include a concerted, but a stepwise process.

Examiners: Prof. D. Sunko, Prof. S. Borčić and Dr. T. Cvitaš

Oral examination: November 13, 1974.

Thesis deposited at the University of Zagreb.

(135 pages, 9 tables, 1 figure, 120 references, original in Croatian)

M. LADIKA

MCC-66 (Univ. Zagreb)

1. Study of the Cyclization of 2-(3-Butenyl)-2-Cyclohexenyl Derivatives

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Allylic cations, conformation of 2-Cyclohexen-1-ol, derivatives, solvolysis of
Isotope effects, deuterium, secondary
Molecular orbital, intermediate neglect of differential overlap
Solvolysis

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V. Bonačić and J. Koutecký

Department of Chemistry, The Johns Hopkins University. Baltimore, Maryland 21218 and Belfer Graduate School of Science, Yeshiva University, New York 10033

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O. Carević and N. Čerlek

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BCC-1277

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Belfer Graduate School of Science, Yeshiva University, New York, New York 10033, USA and Department of Chemistry, The Johns Hopkins University, Baltimore, Maryland 21218, USA

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Institute for Medical Research and Occupational Health, Yugoslav Academy of Sciences and Arts, Zagreb, Yugoslavia

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J. E. Bloor and Z. B. Maksić
Chemistry Department, The University of Tennessee, Knoxville, Tennessee 37916

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Faculty of Electrical Engineering, University of Belgrade, Serbia, Yugoslavia and Institute Ruđer Bošković, P. O. Box 1016, 41001 Zagreb, Croatia, Yugoslavia

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BCC-1283

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INA-Institute, Zagreb, Yugoslavia and JUGOVINIL, Split, Yugoslavia

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Chromatographia **5** (1972) 573.

BCC-1285

H. L. Goering, J. V. Clevenger, and K. Humski
Department of Chemistry, University of Wisconsin, Madison Wisconsin 53706

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BCC-1286

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Institut für Strahlenchemie, Kernforschungszentrum Karlsruhe, Karlsruhe, Germany

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Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin

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INA Institute, Zagreb, Yugoslavia

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Laboratory for Electrophoresis, Center for Marine Research, Institute »Ruđer Bošković«, Zagreb (Yugoslavia)

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Belfer Graduate School of Science, Yeshiva University, New York, New York 10033, USA

Direct Minimization of the Hartree-Fock Expectation Value of the Hamiltonian

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BCC-1293

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Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin-Dahlem

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Department of Physics, Institute »Ruđer Bošković« and Department of Biocolloidal Chemistry, Andrija Štampar School of Public Health, Faculty of Medicine, University of Zagreb, Zagreb, Yugoslavia

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Institute »Ruđer Bošković«, Zagreb, Yugoslavia and Institute of Chemical Physics of the USSR Academy of Sciences, Moscow, USSR

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Department of Chemistry, Faculty of Pharmacy and Biochemistry, University of Zagreb and Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

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Department of Biochemistry, New York University School of Medicine, New York, New York 10016

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Institute for Medical Research and Occupational Health, Yugoslav Academy of Sciences and Arts, Zagreb

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Institut za istraživanje i razvoj INA and Laboratorium für analytische Chemie der Naturwisenschaftlichen Fakultät der Universität, Zagreb, Jugoslawien

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Andrija Štampar School of Public Health, Medical Faculty, University of Zagreb and Institute for Medical Research, Yugoslav Academy of Sciences and Arts, Zagreb

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BCC-1370

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Compagnia di Ricerca Chimica SA., Chiasso, Switzerland and Institute of Organic Chemistry and Biochemistry, University of Zagreb, Zagreb

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J. Heterocycl. Chem. **10** (1973) 591.

BCC-1371

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CRC, Compagnia di Ricerca Chimica, Chiasso, Switzerland, Institut za organsku kemiju i biokemiju, Sveučilište u Zagrebu

NMR Study of Hexaminium Salt Formation of α-Bromo-N--Methyl-Phenylacetamide

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie Sect. A **18** *(1973) 228.*

BCC-1372

V. Šunjić, M. Štromar, F. Kajfež, S. Rendić, and D. Kolbah
CRC, Compagnia di Ricerca Chimica, Chiasso, Switzerland and Institute of Organic Chemistry and Biochemistry, University of Zagreb, Zagreb

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Acta Pharm. Jugoslav. **23** (1973) 213.

BCC-1373

K. Wilhelm, R. Pleština, i B. Svetličić
Institut za medicinska istraživanja i medicinu rada JAZU i Škola narodnog zdravlja »Andrija Štampar« Medicinskog fakulteta Sveučilišta u Zagrebu

Aktivnost kolinesteraza u krvi radnika izloženih organskom fosfornom insekticidu Ekatinu

Arh. Hig. Rada Toksikol. **24** (1973) 107.

BCC-1374

K. Wilhelm and E. Reiner
Institute for Medical Research and Occupational Health, Yugoslav Academy of Sciences and Arts, Zagreb, Yugoslavia

Effect of Sample Storage on Human Blood Cholinesterase Activity after Inhibition by Carbamates

Bull. W. H. O. **48** (1973) 363

BCC-1375

K. Wilhelm, M. Vandekar, and E. Reiner
Institute for Medical Research and Occupational Health, Yugoslav Academy of Sciences and Arts, Zagreb, Yugoslavia

Comparison of Methods for Measuring Cholinesterase Inhibition by Carbamates

Bull. W. H. O. **48** (1973) 41.

BCC-1376

M. Wrischer
Ruđer Bošković Institute, Zagreb, Yugoslavia

Protein Crystalloids in the Stroma of Bean Plastids

Protoplasma **77** (1973) 141.

BCC-1377

M. Wrischer
Ruđer Bošković Institute, Zagreb, Yugoslavia

Ultrastructural Changes in Isolated Plastids. I. Etioplasts

Protoplasma **78** (1973) 291.

BCC-1378

M. Wrischer
Ruđer Bošković Institute, Zagreb, Yugoslavia

Ultrastructural Changes in Isolated Plastids. II. Etio-Chloroplasts

Protoplasma **78** (1973) 417.

BCC-1379

M. Wrischer
Ruđer Bošković Institute, Zagreb, Yugoslavia

The Effect of Ethionine on the Fine Structure of Bean Chloroplasts

Cytobiologie **7** (1973) 211.

BCC-1380

M. Zebec, D. Sinković, N. Deželić, D. Jušić, Gj. Deželić, and B. Pende
Andrija Štampar School of Public Health, Medical Faculty, Zagreb and Institute of Immunology, Zagreb

Gel Chromatography of the Lipopolysaccharide from *Salmonela Typhi* on the Sepharose 4B Gel

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BCC-1381

V. Zgaga, M. Medić, E. Salaj-Šmic, D. Novak, and M. Wrischer
Laboratory of Cellular Radiobiology and Laboratory of Electron Microscopy, Institute »Ruđer Bošković«, 41001 Zagreb, Yugoslavia

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J. Mol. Biol. **79** (1973) 697.

BCC-1382

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National Institute of Arthritis, Metabolism and Digestive Diseases, National Institutes of Health, Public Health Service U. S. Department of Health, Education and Welfare, Bethesda, Maryland 20014 (U. S. A.) and Department of Organic Chemistry and Biochemistry, »Ruđer Bošković« Institute, Zagreb, Croatia, Yugoslavia

Dicyclohexylammonium Salts for the Isolation and Characterization of Aldonic Acids

Carbohyd. Res. **26** (1973) 323.

BCC-1383

V. Žutić, P. Gerard, E. Nicolas and L. Gierst
Faculté des Sciences, Université Libre, Bruxelles (Belgium)

Heterocoagulation Between Colloidal Particles and Charged Surfaces: The Behavior of Uranium(V) Hydroxide Electrochemically Generated at a Mercury Electrode

J. Electronal. Chem. **44** (1973) 107.

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BCC-1384

A. Bakač, R. Marčec, and M. Orhanović
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

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Inorg. Chem. **13** (1974) 57.

BCC-1385

A. Bakač and M. Orhanović
Institute »Ruđer Bošković«, Bijenička 54, Zagreb, Yugoslavia

Characterization of the Geometric Isomers of the Tetraaquobispyridinechromium(III) Ion

Z. Naturforsch. B **29** (1974) 134.

BCC-1386

M. Biruš, W. L. Reynolds, M. Pribanić, and S. Ašperger
Department of Chemistry, Faculty of Pharmacy and Biochemistry, University of Zagreb, and Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Kinetics and Mechanism of Base Hydrolysis of (Dimethyl Sulphoxide) Pentaaminecobalt(III) Ions

Proc. XVI Int. Conf. Coord. Chem. (1974) 3. 6.

BCC-1387

Z. Bradić, D. Pavlović, I. Murati, and S. Ašperger
Department of Chemistry, Faculty of Pharmacy and Biochemistry, University of Zagreb and Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Kinetics and Mechanism of Replacement of Sulphite in the Pentacyano(sulphito)ferrate(II) Ion by Cyanide Ion

J. Chem. Soc. Dalton Trans. (1974) 344.

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N. Brničević and C. Djordjević
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia and College of William and Mary, Williamsburg, Virginia 23185, U. S. A.

Co-ordination Complexes of Niobium and Tantalum. Part XV. Sulphoxide Complexes of Oxobis(oxalato)niobates(V)

J. Chem. Soc. Dalton Trans. (1974) 165.

BCC-1389

O. Carević, V. Šverko, M. Boranić, and V. Prpić
Department of Experimental Biology and Medicine, Ruđer Bošković Institute, and Research Department »Pliva«, Pharmaceutical and Chemical Works, P. O. Box 1016, 41001 Zagreb, (Yugoslavia)

Effect of Glorafur on Acid Phosphatase Activity in the Liver of Mice with Transplanted Lymphatic Leukaemia

Experientia **30** (1974) 241.

BCC-1390

D. Cvetković, I. Gutman, and N. Trinajstić
Faculty of Electrical Engineering, University of Belgrade, P. O. B. 816, 11001 Belgrade, Serbia, Yugoslavia and Institute »Ruđer Bošković«, P. O.B. 1016, 41001 Zagreb, Croatia, Yugoslavia

Graph Theory and Molecular Orbitals. IX. On the Stability of Cata-Condensed Hydrocarbons

Theor. Chim. Acta **34** (1974) 129.

BCC-1391

V. Čaplar, V. Šunjić, and F. Kajfež

CRC, Compagnia di Ricerca Chimica SA., Chiasso, Switzerland, Institute of Organic Chemistry and Biochemistry, University of Zagreb, and Institute for the Control of Drugs, Zagreb

N^1-Substitution in 4(5)-Nitroimidazole. IV. New Synthesis of N^1-Ethylsulphonyl-Ethyl-2-Methyl-5-Nitroimidazole

J. Heterocycl. Chem. **11** (1974) 681.

BCC-1392

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CRC, Compagnia di Ricerca Chimica SA., Chiasso, Switzerland, Institute of Organic Chemistry and Biochemistry, University of Zagreb and Institute for the Control of Drugs, Zagreb

Physico-Chemical Properties and Identification Methods of Tinidazole

Acta Pharm. Jugoslav. **24** (1974) 147.

BCC-1393

B. Čeluška and S. Popović

Institute »Ruđer Bošković«, 41001 Zagreb, P. O. B. 1016, Yugoslavia

The Synthesis of In_5Se_6 and In_2Se from InSe by Zone-Melting Process

J. Phys. Chem. Solids **35** (1974) 287.

BCC-1394

D. Čukman and V. Pravdić

Electrochemistry Laboratory, Ruđer Bošković Institute, Zagreb, Croatia (Yugoslavia)

Measurement of Rates of Chemical Reactions Coupled to Electron Transfer by Cyclic Chronopotentiometry

J. Electroanal. Chem. **49** (1974) 415.

BCC-1395

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Electrochemistry Laboratory, Ruđer Bošković Institute, Zagreb, Croatia (Yugoslavia)

An Investigation into the Reaction Mechanism of Uranium(VI) Reduction in Acidic Solutions by Cyclic Chronopotentiometry

J. Electroanal. Chem. **49** (1974) 421.

BCC-1396

Č. Čosović, Z. Jandrić, and M. Proštenik

Zavod za kemiju i biokemiju, Medicinskog fakulteta Sveučilišta u Zagrebu, 41000 Zagreb, Šalata 3

Lipids of Higher Fungi. I. Mycoglycolipids, a New Glass of Complex Lipids of Mushrooms

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie Sect. A **19** (1974) 2.

BCC-1397

M. Dikšić, D. K. McMillan, and L. Yaffe

Department of Chemistry, McGill University, Montreal, Quebec, Canada

Nuclear Charge Dispersion in Mass Chain 130—135 from the Fission of ^{238}U by Medium-Energy Protons

J. Inorg. Nucl. Chem. **36** (1974) 7.

BCC-1398

M. Dikšić, P. Strohal, and I. Šlaus
Institute »Ruđer Bošković«, Zagreb, Yugoslavia

(n,^{3}He) and (n,t) Reaction Cross-Sections at 14 MeV

J. Inorg. Nucl. Chem. **36** (1974) 477.

BCC-1399

B. Dugonjić, L. Kolačni-Babić, H. Krnjević, and M. Malnar
Zavod za kemiju, Katedra za biokemiju Farmaceutsko-biokemijskog fakulteta Sveučilišta, Zagreb i Farmakološki laboratorij »Pliva«, Zagreb

Lipotropic Action of Lipocain Compared to Other Lipotropic Factors

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie Sect. A **19** (1974) 129.

BCC-1400

M. Eckert-Maksić and Z. B. Maksić
Institute »Ruđer Bošković«, 41001 Zagreb, Croatia, Yugoslavia

Maximum Overlap Hybridization in Norbornane and Some Related Molecules

J. Mol. Struct. **22** (1974) 445.

BCC-1401

V. Fintić and J. Bešić
Zavod za ispitivanje i kontrolu lijekova SRH, Zagreb

Određivanje atropina u prisutnosti pralidoksim-klorida metodom plinske kromatografije

Acta Pharm. Jugoslav. **24** (1974) 157.

BCC-1402

D. Grdenić, B. Kamenar, B. Korpar-Čolig, M. Sikirica, and G. Jovanovski
Laboratory of General and Inorganic Chemistry, Faculty of Science, University of Zagreb, 41001 Zagreb, P. O. Box 153, Yugoslavia

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J. Chem. Soc. D (1974) 646.

BCC-1403

B. Grgas-Kužnar, Vl. Simeon, and O. A. Weber
Laboratory of Analytical and Physical Chemistry, Institute for Medical Research and Occupational Health, Yugoslav Academy of Sciences and Arts, 41001 Zagreb, Croatia, Yugoslavia

Complexes of Adrenaline and Related Compounds with Ni^{2+}, Cu^{2+}, Zn^{2+}, Cd^{2+}, and Pb^{2+}

J. Inorg. Nucl. Chem. **36** (1974) 2151.

BCC-1404

Lj. Grlić
Yugoslav Lexicographical Institute, Zagreb, Yugoslavia

Identification of Cannabis Users by Detecting Cannabinoids in Biological Media

Acta Pharm. Jugoslav. **24** (1974) 63.

BCC-1391

V. Čaplar, V. Šunjić, and F. Kajfež

CRC, Compagnia di Ricerca Chimica SA., Chiasso, Switzerland, Institute of Organic Chemistry and Biochemistry, University of Zagreb, and Institute for the Control of Drugs, Zagreb

N^1-Substitution in 4(5)-Nitroimidazole. IV. New Synthesis of N^1-Ethylsulphonyl-Ethyl-2-Methyl-5-Nitroimidazole

J. Heterocycl. Chem. **11** (1974) 681.

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V. Čaplar, V. Šunjić, F. Kajfež, and J. Kuftinec

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Institute »Ruđer Bošković«, 41001 Zagreb, P. O. B. 1016, Yugoslavia

The Synthesis of In_5Se_6 and In_2Se from InSe by Zone-Melting Process

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D. Čukman and V. Pravdić

Electrochemistry Laboratory, Ruđer Bošković Institute, Zagreb, Croatia (Yugoslavia)

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Electrochemistry Laboratory, Ruđer Bošković Institute, Zagreb, Croatia (Yugoslavia)

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Zavod za kemiju i biokemiju, Medicinskog fakulteta Sveučilišta u Zagrebu, 41000 Zagreb, Šalata 3

Lipids of Higher Fungi. I. Mycoglycolipids, a New Glass of Complex Lipids of Mushrooms

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie Sect. A **19** (1974) 2.

BCC-1397

M. Dikšić, D. K. McMillan, and L. Yaffe

Department of Chemistry, McGill University, Montreal, Quebec, Canada

Nuclear Charge Dispersion in Mass Chain 130—135 from the Fission of ^{238}U by Medium-Energy Protons

J. Inorg. Nucl. Chem. **36** (1974) 7.

BCC-1405

H. Güsten, L. Klasinc, V. Kramer, and J. Marsel
Institute »Ruđer Bošković«, Zagreb, Yugoslavia, Institut für Radiochemie Kernforschungszentrum, Karlsruhe, Germany, »J. Stefan« Institute, University of Ljubljana, Yugoslavia

Correlation of Fragmentation Modes of Substituted Stilbenes under Electron Impact

Adv. Mass Spectrom. **6** (1974) 79.

BCC-1406

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Institut für Radiochemie, Kernforschungszentrum Karlsruhe, Germany, Institute »Ruđer Bošković«, Zagreb, Yugoslavia and »J. Stefan« Institute, University of Ljubljana, Yugoslavia

Mass Spectra of Monosubstituted *trans* Stilbenes

Org. Mass Spectrom. **8** (1974) 323.

BCC-1407

I. Gutman
Institute »Ruđer Bošković«, P. O. B. 1016, 41001 Zagreb, Croatia, Yugoslavia

Bound for Total π-Electron Energy

Chem. Phys. Lett. **24** (1974) 283.

BCC-1408

I. Gutman
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

On the Number of Antibonding MO's in Conjugated Hydrocarbons

Chem. Phys. Lett. **26** (1974) 85.

BCC-1409

I. Gutman
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Estimating the π-Electron Energy of Very Large Conjugated Systems

Naturwissenschaften **61** (1974) 216.

BCC-1410

I. Gutman, J. V. Knop, and N. Trinajstić
Institute »Ruđer Bošković«, Zagreb, Yugoslavia and Rechenzentrum der Universität Düsseldorf

A Graph-theoretical Analysis of the HOMO-LUMO Separation in Conjugated Hydrocarbons

Z. Naturforsch. B **29** (1974) 80.

BCC-1411

I. Gutman and N. Trinajstić
Institute »Ruđer Bošković«, P. O. B. 1016, Zagreb, Croatia, Yugoslavia

Violation of the Dewar-Longuet-Higgins Conjecture

Z. Naturforsch. A **29** (1974) 1238.

BCC-1412

J. W. Hayes, I. Ružić, and D. E. Smith
Department of Chemistry, Northwestern University, Evanston, Ill. 60201 (U. S. A.)

Fundamental Harmonic A. C. Polarography with Disproportionation Following the Charge Transfer Step. Theory and Experimental Results with the U(VI)/U(V) Couple

J. Electroanal. Chem. **51** (1974) 245.

BCC-1413

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Department of Chemistry, Northwestern University, Evanston, Ill. 60201 (U. S. A.)

Fundamental Harmonic A. C. Polarography with Irreversible Dimerization Following the Charge Transfer Step. Theory and Experimental Results with the Benzaldehyde System

J. Electroanal. Chem. **51** (1974) 269.

BCC-1414

J. N. Herak and C. A. McDowell

Department of Chemistry, University of British Columbia, Vancouver, British Columbia, Canada V6T 1E5

ENDOR Study of Long-range Spin Interactions in Molecular Crystals. I. 1-Methyl Uracil

J. Chem. Phys. **61** (1974) 1129.

BCC-1415

M. Herceg and J. Fischer

Institute »Ruđer Bošković«, 41001 Zagreb, Croatia, Yugoslavia and Laboratoire de Cristallochimie, Institut de Chimie, Université Louis Pasteur, B. P. 296/R8, 67008 — Strassbourg Cedex, France

Structure Cristalline du Dichlorobis-(*N*,*N*-diméthylacétamide) zinc(II)

Acta Crystallogr. Sect. B **30** (1974) 1289.

BCC-1416

S. Hiršl-Starčević, Z. Majerski, and D. E. Sunko

Ruđer Bošković Institute, 41001 Zagreb, Croatia, Yugoslavia and Department of Chemistry, Indiana University, Bloomington, Indiana 47401

Stereochemistry of the Solvolysis of Mentyl Tosylate. An Example of Retained Chair Conformation in the Transition State

J. Amer. Chem. Soc. **96** (1974) 3659.

BCC-1417

K. Humski, V. Sendijarević, and V. J. Shiner, Jr.

Faculty of Technology, University of Zagreb, 44000 Sisak, Croatia, Yugoslavia, Institute »Ruđer Bošković«, 41000 Zagreb, Croatia, Yugoslavia, and Department of Chemistry, Indiana University, Bloomington, Indiana 47401

Stereochemistry of Olefine Formation in Cyclopentyl Brosylate Solvolysis

J. Amer. Chem. Soc. **96** (1974) 6187.

BCC-1418

V. Jadrijević and Đ. Deur-Šiftar

INA — Institute, Zagreb, Croatia, Yugoslavia

Gas Chromatographic Determination of Inorganic Gases in High Purity Ethylene

Chromatographia **7** (1974) 19.

BCC-1419

J. Janjatović, D. Škare, and Z. Majerski

Ruđer Bošković Institute, 41001 Zagreb, Yugoslavia

Sulfuric Acid Catalyzed Rearrangements of 1- and 3-Homoadamantanols

J. Org. Chem. **39** (1974) 651.

BCC-1420

D. Keglević, B. Ladešić, O. Hadžija, J. Tomašić, Z. Valiger, M. Pokorny, and R. Naumski

Tracer Laboratory, Institute »Ruđer Bošković«, Zagreb and Research Department, PLIVA, Pharmaceutical and Chemical Works, Zagreb

Isolation and Study of the Composition of a Peptidoglycan Complex Excreted by the Biotin-Requiring Mutant of *Brevibacterium Divaricatum* NRRL-2311 in the Presence of Penicillin

Eur. J. Biochem. **42** (1974) 389.

BCC-1421

K. Kljaić, Lj. Bzik, and M. Proštenik

Zavod za kemiju i biokemiju, Medicinski fakultet, Sveučilište u Zagrebu, 41001 Zagreb, Šalata 3

Studies in the Sphingolipids Series. XXXVI. Synthesis of DL-*erythro*-1,3-Dihydroxy-2-Amino-Hexadecane(*racem.* C_{16}-Dihydrosphingosine)

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie Sect. A **19** (1974) 177.

BCC-1422

J. V. Knop, N. Trinajstić, and T. Živković

Rechenzentrum, Universität Düsseldorf, F. R. Germany and Institute »Ruđer Bošković«, P. O. B. 1016, 41001 Zagreb, Croatia, Yugoslavia

A Graphical Study of Positional Isomers Containing Bivalent Sulphur

Collect. Czech. Chem. Commun. **39** (1974) 2431.

BCC-1423

B. Kojić-Prodić, R. Liminga, M. Šljukić, and Ž. Ružić-Toroš

Ruđer Bošković Institute, 41001 Zagreb, P. O. Box 1016, Yugoslavia

Molecular Crystal Structure of 5,6-Dihydro-2-thiouridine, $CgH_{14}N_2O_5S$

Acta Crystallogr. Sect. B **30** (1974) 1550.

BCC-1424

B. Kojić-Prodić, Ž. Ružić-Toroš, D. Grdenić, and Lj. Golič

Institute »Ruđer Bošković«, P. O. Box 1016, 41001 Zagreb, Yugoslavia

The Crystal Structure of Dioxobis-(1,3-diphenylpropane-dionatato) molybdenum(VI), $(C_{15}H_{11}O_2)_2MoO_2$

Acta Crystallogr. Sect. B **30** (1974) 300.

BCC-1425

J. Koller, A. Ažman, and N. Trinajstić

Chemical Institute »Boris Kidrič«, P. O. B. 380, 61001 Ljubljana, Slovenia, Yugoslavia and Institute »Ruđer Bošković«, P. O. B. 1016, 41001 Zagreb, Croatia, Yugoslavia

Some *ab Initio* Calculations on Indole, Isoindole, Benzofuran, and Isobenzofuran

Z. Naturforsch. A **29** (1974) 624.

BCC-1426

D. Korunčev, A. Deljac, B. Bošković, and Z. Binenfeld

Faculty of Natural Sciences and Mathematics, University of Zagreb, Military Technical Institute, Belgrade, and Bosnalijek, Pharmaceutical Factory, Sarajevo

Synthesis and Pharmacological Screening of 3-(3′-Methyl--2′-methoxyphenyl)-1,2-dihydroxypropane

Acta Pharm. Jugoslav. **24** (1974) 153.

BCC-1427

I. Kovač, V. Šunjić, M. Oklobdžija, and F. Kajfež

CRC, Compagnia di Ricerca Chimica SA., Chiasso, Switzerland, Institute of Organic Chemistry and Biochemistry, University of Zagreb, Zagreb, Croatia, Yugoslavia

3-Onium Derivatives of 1,4-Benzodiazepin-2-ones with Tertiary Organic Bases

J. Med. Chem. **17** (1974) 766.

BCC-1428

V. Kovač, M. Tonković, and Z. Štefanac

Institute »Ruđer Bošković«, Bijenička c. 54 and Institute for Medical Research, Yugoslav Academy of Sciences and Arts, Moše Pijade 158, 41000 Zagreb, Yugoslavia

Determination of Calcium in Organometallic Compounds by Atomic Absorption Spectroscopy

Microchem. J. **19** (1974) 37.

BCC-1429

K. Kovačević and Z. B. Maksić

Institute »Ruđer Bošković« 41001 Zagreb, Croatia, Yugoslavia

Calculation of Bond Lengths and Angles in Hydrocarbons by the Iterative MOA Method

J. Org. Chem. **39** (1974) 539.

BCC-1430

K. Kovačević, M. Eckert-Maksić, and Z. B. Maksić

Institute »Ruđer Bošković«, 41001 Zagreb, Croatia, Yugoslavia

Calculation of the Heats of Formation in Some Cyclic and Polycyclic Hydrocarbons by the MOA Method

J. Mol. Struct. **21** (1974) 335.

BCC-1431

M. Laćan, K. Jakopčić, V. Rogić, S. Damoni, O. Rogić, and I. Tabaković

Faculty of Technology, Zagreb, Yugoslavia and Technical Faculty, Banjaluka, Yugoslavia

Electrochemical Synthesis of Heterocyclic Compounds. II. Synthesis of Some N-Heterocycles by Intramolecular Oxidative Cyclisation

Synt. Commun. **4** (1974) 219.

BCC-1432

M. Laćan, I. Tabaković, and Z. Čeković

Faculty of Technology, University of Zagreb, and Faculty of Technology, University of Belgrade, Belgrade, Yugoslavia

Electrochemical Syntheses of Heterocyclic Compounds. I. Intramolecular Electrochemical Cyclization of Formazans to Tetrazolium Salts [Oxidation Mechanism, Polarography]

Tetrahedron **30** (1974) 2911.

BCC-1433

I. W. Larsen and M. Eckert-Maksić

Department of Chemistry, University of Tennessee, Knoxville, Tennessee 37916 and Institute Ruđer Bošković, 41001 Zagreb, Yugoslavia

Ambident Behavior of Some Phenols and Alkoxy Benzenes in Antimony Pentafluoride-Fluorosulfonic Acid Mixtures

J. Amer. Chem. Soc. **96** (1974) 4311.

BCC-1434

Z. B. Maksić
Institute »Ruđer Bošković«, 41001 Zagreb, Croatia, (Yugoslavia)

Additivity of the Diamagnetic Susceptibility of Molecules

J. Mol. Struct. **20** (1974) 41.

BCC-1435

M. Maksimović, M. Ćosić, and Z. Binenfeld
Institute of Technical and Medical Protection, Beograd and Chemical Plant Chromos-Katran-Kutrilin, Zagreb

Aromatic Phosphoryl Thiocholines. III. The Kinetics of Inhibition of Purified Horse Serum Cholinesterase

Arh. Hig. Rada Toksikol. **24** (1974) 117.

BCC-1436

M. Malnar
Department of Chemistry, Faculty of Pharmacy and Biochemistry, A. Kovačić 1, Zagreb, Institute of Organic Chemistry and Biochemistry of the University, Zagreb

Synthesis of Organotin Fluorides. Part III. Alkyltrifluorostannanes

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie Sect. A **19** (1974) 65.

BCC-1437

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