DCC-29 (Univ. Zagreb)

Croat. Chem. Acta **42** (1970)

The Interaction of Some Organic and Inorganic Ions with Silver Iodide Sols *in statu nascendi*

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The pptn. phenomena were investigated by tyndallometric and fluorometric measurements in the systems *in statu nascendi* with the following components: silver nitrate, sodium iodide, sodium fluoresceinate, rhodamine B, triton T-X-305, T-X-205 or T-X-100, potassium, barium and lanthanum nitrate.

The system sodium fluoresceinate — rhodamine B shows isoelectric pptn. and formation of an *equivalent body.*

By systematic measurements in various concn. regions in the system consisting of silver-, halide- and fluoresceinate ions the conception of Fajans' indicators was improved. That conception involves: stereoadsorption of fluoresceinate, flocculation and reversal of charge of silver iodide, pptn. of silver fluoresceinate both on the surface and independently in solution, *i. e.* copptn. of various ionic species.

The amt. of fluoresceinate adsorbed on the silver iodide surface is calcd. from fluorometric measurements.

The influence of the presence of nonionic surface-active agents on the pptn. effects of silver iodide is examd. tyndallometrically. T-X-305, T-X-205 or T-X-100 shows similar pptn. phenomena as the org. ions of dyes (fluoresceinate or rhodamine B), and as small inorg. ions of high valency. Three pptn. regions can be distinguished: stabilization, flocculation and concn. region without any effects. The flocculation limits for positive and negative silver iodide sol were found to be in the region from 10^{-7} to 10^{-6} of triton.

The interaction of silver iodide colloidal particles with surface-active agents was investigated in the presence of inorg. cations (Na^+, Ba^{2+}, La^{3+}) and fluoresceinate or rhodanine B. The results show that the stereoadsorption of triton is a primary process and that there is an opportunity of ion-pair formation only on the free places on the surface of colloidal particles.

In the pptn. systems consisting of silver nitrate, sodium iodide, sodium fluoresceinate (or rhodamine B) and triton, the stabilizing action of triton is quite pronounced; the critical protective values are found to be in order of 10^{-4} *M*.

The thesis was partly published in: 1. *Croat. Chem. Acta* **36** (1964) 59; 2. *Ibid.* **36** (1964) 133.

Examiners: Prof. M. Mirnik, Prof. C. Djordjević, Dr. O. Weber.

Oral examination: May 25, 1965.

Dissertation deposited at University Library, Zagreb, and Institute of Physical Chemistry, University of Zagreb, Zagreb, Yugoslavia.

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DCC-29

1. The Interaction of Some Organic and Inorganic Ions with Silver Iodide Sols *in statu nascendi*

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Adsorption phenomena
Barium nitrate
Lanthanum nitrate
Potassium nitrate
Precipitation phenomena
Rhodamine B
Silver nitrate
Sodium fluoresceinate
Sodium iodide
Triton T-X-100, T-X-205, T-X-305

MCC-34 (Univ. of Zagreb)
Master of Science Thesis

Croat. Chem. Acta **42** (1970)

Investigations into the Kinetics of Electrochemical-Chemical Reactions of Uranium Carbonate Complexes by Cyclic Chronopotentiometry

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The method and technique of chronopotentiometry is applied to the study of complex electrochem. and chem. reactions mechanisms. The work contains a development of the method into cyclic chronopotentiometry, by application of computational methods to the estn. of second order rate coeff. of a chem. reaction following electron transfer.

It has been found that the range of applicability is for rate coeff. between 1 and 10^5 l mol^{-1} sec^{-1}. In the optimum range between 10 and 50 the error of a detn. of a rate coeff. is less than 10%. A computer program written in Fortran II is presented, which simulates digitally the complex reaction kinetics encountered in some ionic systems *e. g.* U(IV), (V) and (VI) carbonate soln.

The rate coeff. of the disproportionation reaction of U (V) in 1 *M* $NaHCO_3$ at *p*H = 8.5 is 9.9 1 mol^{-1} sec^{-1}. Several expts. indicate that the rate coeff. for this reaction increases with a decrease either in the concn. of free carbonate or the ionic strength of the soln. In addition it has been found, contrary to some indications in the literature, that the U (V) — tricarbonate complex is oxidized either directly (*i. e.* without prior dissociation) at the mercury cathode, or the rate coef. of the precceding dissociation is larger than about 35 sec^{-1}.

Part of the work (contained) was reported at the *1st Yugoslav Symposium on Electrochemistry,* Belgrade 1968. A part was published in *Croat. Chem. Acta* **42** (1970) 21.

Examiners: Prof. I. Filipović, Prof. M. Mirnik, and Dr V. Pravdić.
Oral Examination: June 4, 1969.

Thesis (presented to and) deposited at the Faculty of Science, Univ. of Zagreb.

(79 pages, 13 tables, 16 figures, 76 references, 2 computer programs, original in Croatian)

M. VUKOVIĆ

MCC-34 (Univ. of Zagreb)

1. Investigations into the Kinetics of Electrochemical — Chemical Reactions of Uranium Carbonate Complexes by Cyclic Chronopotentiometry

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Carbonate
Chronopotentiometry
—, cyclic
Computer program
Digital simulation
Disproportionation
Electrochemistry
Electron transfer
Kinetics
—, second order chemical
Oxidation
Reduction
Rate coefficient
Uranium

MCC-35 (Univ. Zagreb)
Master of Science Thesis

Croat. Chem. Acta **42** (1970)

Binding of ^{65}Zn to Serum Proteins *in vitro*

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The thesis deals with the binding of zinc to serum proteins *in vitro* depending on the ageing of the system at + 4° C. For the separation of serum proteins the following methods were used: one-dimensional paper electrophoresis and agar gel electrophoresis, microzone electrophoresis on acetate cellulose, two-dimensional electrochromatography and continuous electrophoresis on filter paper. Expts. were performed in a barbituric buffer at *p*H 8.6 and 7 and in phosphate buffer at *p*H 7.

Normal human serum labelled in vitro with carrier free $^{65}Zn/10^{-7}$ *M*) immediately binds almost all ^{65}Zn to a protein which migrates electrophoretically in the albumin region. The 24-hour incubation of serum labelled with the ^{65}Zn at 4° C does not cause any significant changes. During a further 3 to 8 day ageing period the amount of ^{65}Zn bound to alpha and beta-globulins is increasing. The binding of ^{65}Zn to globulins can be ascribed to the exchange of radiozinc with the inactive zinc which is physiol. present in these fractions.

It is clearly shown that one-dimensional electrophoresis on a supporting medium cannot yield a correct result regarding the binding of radiozinc to serum albumins because of the radioactive rest-proteins on the supporting medium. Two dimensional electrochromatography is an extremely suitable method for such investigations, because electromigration zones of particular fractions of serum proteins do not overlap during the sepn. and thus prevents the radioactive contamination of inactive serum proteins fractions what is not the case when one-dimensional electrophoresis on a support is applied.

The ^{65}Zn which is not bound to serum proteins and has a strong chromatographic effect migrates under the electrochromatographic conditions partly in the form of a complex with barbituric acid.

By continuos electrophoresis it was found that 90 per cent ^{65}Zn in the albumin region was bound to a protein which was called »zincophilin«. The rest of ^{65}Zn was bound to alpha and beta-globulins, and only 0.2 per cent to gamma-globulins. After 14-day ageing of the system 80 per cent ^{65}Zn in the albumin region was bound to »zincophilin«, 16 per cent to alpha and beta-globulins and 2 per cent to gamma-globulins. From the electrophoregram stained for lipids and the corresponding radioautogram it is possible to conclude that lipids play an important role in the binding of ^{65}Zn to electrophoretic serum fractions.

Parts of this thesis were published and reported: *Regional Meeting of Chemists*, Zagreb, Croatia 1969 and *1st Yugoslav Symposium on the Chemistry and Technology of Macromolecules*, Feb. 1969, Prosc. B-2/39, *Arh. hig. rada* No 1, Vol. 21 (1970) 23.

Examiners: Dr. Z. Pučar, Prof. B. Težak, and Prof. M. Herak.

Oral examination: July 9, 1970.

Degree conferred: October 31, 1970.

Thesis deposited at the University Library, Zagreb. Institute for Medical Research, Yugoslav Academy of Sciences and Arts, and »Ruđer Bošković« Institute, Zagreb.

(107 pages, 18 figures, 74 references, original in Croatian)

L. ŠTILINOVIĆ

MCC-35

1. Binding of ^{65}Zn to Serum Proteins in Vitro

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Electrochromatography
Electrophoresis
alpha-Globulins
beta-Globulins
gamma-Globulins
Lipids
Radiozinc

MCC-36 (Univ. Zagreb)
Master of Science Thesis

Croat. Chem. Acta **42** (1970)

Redox Processes, Hydrolysis and Precipitation of Uranium in Aqueous Solutions

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The redn. and oxidn. processes of uranium(VI), (V), (IV) and (III) have been studied in perchlorate aq. solns. using the dropping, hanging mercury drop electrode and thin layer technique. The expts. have been carried out in the acidic media ($O < pH < 2.7$) at different concn. of uranium and const. ionic strength $\mu = 1$. In certain conditions the observed data show that the uranium(V) redn. process is influenced by its chem. reaction with uranium(III), resulting in the formation of uranium(IV). Due to this reaction the character of the polarographic and chronovoltammetric curves is changed. The disappearance of uranium(III) oxidn. peak on chronovoltammetric curves obtained with hanging mercury drop electrode can be also explained by this reaction. The kinetic parameters of the uranium(V) to (IV) redn. were detd. as: $k^0_{f,h} = (4.0 \pm 0.4) \times 10^{-8}$ cm./sec. and $\alpha = 0.46 \pm 0.01$. The mechanism of uranium(V) to uranium(III) redn. process is discussed and proposed.

Uranium(VI) in 1 *M* $NaClO_4$ (pH = 2), 1 *M* Na_2CO_3 and 1.1 *M* LiOH solns. have been reduced to uranium(V) on the mercury electrode at —0.6, —1.2, and —1.1 V (vs. SCE), resp., and the uranium(V) pptd. The pptn. was carried out in the case of perchlorate and carbonate solns. by the addn. of NaOH, while in LiOH soln. the uranium(V) ppts. during the electrolysis. The O/U ratio of the ppt. was 2.5, with no significant alkaline metal content, showing the formation of hydrated uranium oxides.

Electrochemical redn. with simultaneous electrodialysis of 0.2 to 1 *M* uranium(VI) chloride and nitrate solns. have been investigated to find out the condition for obtaining stable UO_2-sols. Mercury, amalgamated copper and tantal electrodes have been used. Mercury electrode was suitable to obtain up to 0.4 *M* UO_2-sols. When the reduced uranium concn. was higher than 0.4 *M*, the mercury electrode during the stirring was transformed into droplets of 0.1 to 2 mm. diameter. Such droplets were stable for few weeks. The amalgamated copper and the tantal electrodes were not suitable, because of the copper contamination in the first case, while low current densities have been obtained with the tantal electrode.

A new anal. procedure for the polarographic detn. of the O/U ratio in uranium oxides of samples dissolved in orthophosforic and sulfuric acid is proposed. The concn. of uranium(VI) is detd. polarographically. The total uranium present in the soln. is oxidized with ceric ions to the hexavalent state, and then again polarographically detd. The O/U ratio is calcd. from the ratio of the limiting currents and diln. The method can be applied to very small samples (0.1 to 50 mg.) to all O/U ratios from uranium dioxide up to trioxide and with the coeff. of the variation of about 0.6%.

Part of this thesis is published in *J. Polarog. Soc.* **14** (1968) 3.

Examiners: Dr M. Branica, Prof. B. Težak, and Prof. M. Herak.

Oral examination: July 7, 1970.

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

(125 pages, 36 figures, 157 references, original in Croatian)

L. SIPOS

MCC-36

1. Redox Processes, Hydrolysis and Precipitation of Uranium in Aqueous Solutions

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Uranium in aqueous solutions
Uranium, redox processes of
Uranium, hydrolysis of
Uranium, precipitation of

MCC-37 (Univ. Zagreb)
Master of Science Thesis

Croat. Chem. Acta **42** (1970)

Polarography of Cadmium in Electrolyte Solutions in the Presence of Ethylenediaminetetraacetic Acid

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Polarographic redn. of cadmium(II) in the presence of EDTA was investigated in chloride solns. at pH = 8.

The wave height of Cd-EDTA redn. is strongly influenced by the concn., charge, and kind of supporting electrolyte cation. The effect increases in the following order:

$$Li^+ < Na^+ < K^+ < Cs^+ < Ca^{2+}$$

The electrode process, which is preceded by the chem. reaction, is an irreversible one with αn value 0.96.

Increasing the concn. of supporting electrolyte the limiting current becomes less dependent on the preceding reaction and the half-wave potential shifts toward more positive values.

The conclusion, based on kinetical parameters calculation, ψ_2 potential and influence of supporting electrolyte, is that the chem. reaction takes place in the vicinity of the mercury drop surface and precedes the electrode reaction.

The existence of CdY^{-2} ion at pH = 8 was confirmed and this, electroinactive ion is transformed into an active form CdYMe (where Me denotes mentioned cations) by recombination of CdY^{2-} with these cations on the electrode surface. The former corresponds to the existence of the electroactive ion $CdYH^-$ which is predominant at lower pH ($2 < pH < 5$).

Examiners: Dr. M. Branica, Prof. B. Težak and Prof. M. Herak.
Oral examination: November 9, 1970.
Thesis deposited at the University Library and Institute »Ruđer Bošković«, Zagreb.
(89 pages, 7 tables, 17 figures, 94 references, original in Croatian)

B. RASPOR

MCC-37

1. Polarography of Cadmium in Electrolyte Solutions in the Presence of Ethylenediaminetetraacetic Acid

I. Raspor B.

II. Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Cadmium, polarography of
EDTA
Polarography of cadmium complexes

BIBLIOGRAPHIA CHEMICA CROATICA

1967

BCC-740

Z. Binenfeld, B. Bošković und M. Maksimović
Militärtechnische Hochschule, Zagreb
Über die Schutz- und Reaktivierungsfähigkeiten des MBM-3 bei experimentellen Sarinvergiftung. Die Wirkung des MBM-3 im Vergleich zu der Wirkung des Toxogonins und des TMB-4
Acta Pharm. Jugoslav. **17** (1967) 35.

BCC-741

E. Cerkovnikov, A. Rokavec i V. Gall-Palla
Zavod za kemiju i biokemiju, Medicinski fakultet, Rijeka
Prilog proučavanja hranjive vrijednosti ježinaca *Sphaerechinus granularis* **i** *Echinus melo* **iz Jadranskog mora**
Acta Pharm. Jugoslav. **17** (1967) 49.

BCC-742

V. Hankonyi i V. Karas-Gašparec
Zavod za kemiju i biokemiju, Medicinski fakultet, Zagreb
Spektrofotometrijske studije reakcija aquopentacijanoferata (II). I. Spektrofotometrijsko određivanje estera dušične kiseline
Acta Pharm. Jugoslav. **17** (1967) 41.

BCC-743

F. Kajfež, M. Slamnik, and V. Šunjić
KRKA Pharmaceutical and Chemical Works, Institute for Antibiotics, Pharmacy and Technology, Novo Mesto, Yugoslavia
Polarographic Examination of *N*-Substituted-2-Methyl-4(5)-nitroimidazoles
J. Polarog. Soc. **13** (1967) 83.

BCC-744

D. Korunčev i D. Kolbah
Istraživački institut »Plive«, Tvornice farmaceutskih i kemijskih proizvoda, Zagreb
O nekim 2-etilizonikotinaldazinima
Acta Pharm. Jugoslav. **17** (1967) 169.

BCC-745

J. Petričić, V. Petričić i N. Barišić-Poljak
Zavod za farmakognoziju, Farmaceutsko-biokemijski fakultet, Zagreb
Određivanje i izolacija helebrina podzemnih dijelova biljke *Helleborus atrorubens* **Waldst. et Kit.**
Acta Pharm. Jugoslav. **17** (1967) 29.

BCC-746

B. Šrepel
Zavod za farmakognoziju Farmaceutsko-biokemijskog fakulteta Sveučilišta u Zagrebu
Aetheroleum Radicis Rutae. **Eigenschaften eines aus Rautenwurzeln gewonnener ätherischen Öles**
Bull. Sci. Cons. Acad. RSF Yougoslavie, Sect. A **12** (1967) 126.

BCC-747

B. Šrepel
Zavod za farmakognoziju Farmaceutsko-biokemijskog fakulteta Sveučilišta u Zagrebu

Zur chromatographischen Unterscheidung der Blätter von *Atropa Belladonna L.* und *Scopolia Carniolica Jacq.*

Bull. Sci. Cons. Acad. RSF Yougoslavie, Sect. A **12** (1967) 128.

1968

BCC-748

I. Butula
Max-Planck-Institut für Medizinische Forschung, Institut für Chemie, Heidelberg

Katalytische Hydrierung von Imidazolen

Ann. Chem. **718** (1968) 260.

BCC-749

I. Butula und W. Otting
Max-Planck-Institut für Medizinische Forschung, Institut für Chemie, Heidelberg

Über Umsetzungsprodukte der Anthranilsäure mit Dicarbonsäurechloriden

Monatsh. Chem. **99** (1968) 1320.

BCC-750

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

Solvolysis of Optically Active 1,2-Dimethyl-*exo*-2-norbornyl *p*-Nitrobenzoate

J. Am. Chem. Soc. **90** (1968) 6213.

BCC-751

P. Issenberg, G. Greenstein, and M. Bošković
Department of Nutrition and Food Science, Massachussetts Institute of Technology, Cambridge, Mass. 02139

Adsorption of Volatile Organic Compounds in Dehydrated Food Systems. 1. Measurement of Sorption Isotherms at Low Water Activities

J. Food Sci. **33** (1968) 1.

BCC-752

H. Iveković, and G. Arneri
Zavod za kemiju Farmaceutsko-biokemijskog fakulteta, Zagreb, Zavod za zaštitu materijala i desalinaciju Jugoslavenske akademije znanosti i umjetnosti, Dubrovnik

Conversion of Saline Water into the Aqueous Solution of Organic Solvents by Means of Osmosis as a Proposal for the First Step of a Desalination Process

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **13** (1968) 70.

BCC-753

Ž. Kućan
Laboratory of Cellular Biochemistry, Institute »Ruđer Bošković«, Zagreb, Yugoslavia

»Radiation-sensitive Molecular Weights« for the Binding Activity and for the Synthetic Capacity of *Escherichii Coli* Ribosomes

Abh. Deut. Akad. Wiss. Berlin, Kl. Med. (1968) 599.

BCC-754

R. Kuhn und I. Butula
Max-Planck-Institut für Medizinische Forschung, Abteilung für Chemie, Heidelberg

Katalytische Hydrierung von Indol

Angew. Chem. **80** (1968) 189.

BCC-755

R. Kuhn und I. Butula
Max-Planck-Institut für Medizinische Forschung, Institut für Chemie, Heidelberg

Hydrierung von Carbonsäureanhydriden und Carbonylverbindungen mittels Palladium-Katalysatoren

Ann. Chem. **718** (1968) 50.

BCC-756

Z. Majerski and P. von R. Schleyer
Department of Chemistry, Princeton University, Princeton, New Jersey, 08540

The Stereochemical Course of the Hydrogenolysis of Cyclopropane Rings

Tetrahedron Lett. (1968) 6195.

BCC-757

M. Malnar
Zavod za kemiju, Farmaceutsko-biokemijski fakultet, Zagreb

Dialkilfluorstibini

Acta Pharm. Jugoslav. **18** (1968) 57.

BCC-758

M. Movrin i D. Barković
Farmaceutsko-biokemijski fakultet, Zavod za farmaceutsku kemiju, Zagreb

Reakcije boje na izonikotinsku kiselinu

Acta Pharm. Jugoslav. **18** (1968) 61.

BCC-759

I. Pečevsky
Laboratory of Cellular Radiobiolofy, Institute »Ruđer Bošković«, Zagreb, Yugoslavia

Breakdown of Ribosomal RNA in Irradiated Bacteria

Abh. Deut. Akad. Wiss. Berlin, Kl. Med. (1968) 663.

BCC-760

N. Trinajstić
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Calculation of Carbon-Sulphur Bond Lenghts

Tetrahedron Lett. (1968) 1529.

BCC-761

R. H. H. Wolf and M. Vinceković
Institute »Ruđer Bošković«, Zagreb, Yugoslavia

The Influence of Amphoteric Polyelectrolyte on the Formation of Colloidal Precipitates

Proceedings of the Vth International Congress on Surface Active Substances, Barcelona 1968, Vol. II/2, 1113.

BCC-762

T. Živković and N. Trinajstić
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Novel Expressions for Electronic Density Distribution Calculation

Chem. Phys. Letters **2** (1968) 369.

1969

BCC-763

L. H. Allen and E. Matijević
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam, N. Y. 13676

Stability of Colloidal Silica. I. Effect of Simple Electrolytes

J. Colloid Interface Sci. **31** (1969) 287.

BCC-764

I. Balint i J. Momirović-Čuljat
Zavod za kemiju prehrane, Farmaceutsko-biokemijski fakultet, Zagreb

Istraživanje aktivnosti dijastatskih encima na različite vrste škrobnih granula. 1. Aktivnost bakterijske alfa-amilaze

Acta Pharm. Jugoslav. **19** (1969) 38.

BCC-765

I. Butula
Max-Planck-Institut für Medizinische Forschung, Abteilung Chemie, D-69 Heidelberg

Katalytische Hydrierung von Purinen

Ann. Chem. **729** (1969) 73.

BCC-766

E. A. Cassell, A. J. Rubin, H. B. LaFever, and E. Matijević
Clarkson College of Technology, Potsdam, N. Y.

Removal of Organic Colloids by Microflotation

23rd Purdue Ind. Waste Conference, Purdue University, Lafayette 7—9 May, 1968.

BCC-767

H. Čačković, R. Hosemann, J. Loboda-Čačković und W. Wilke
Institute »Ruđer Bošković«, Zagreb, (Jugoslawien) und Fritz-Haber Institut der Max-Planck-Gesellschaft, Berlin

»Kristallartige« Ketten (α-Typ) in der »amorphen Phase des linearen Polyäthylens

Kolloid-Z. Z. Polymere **235** (1969) 1287.

BCC-768

R. Demchak and E. Matijević
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam, N. Y. 13676

Preparation and Particle Size Analysis of Chromium Hydroxide Hydrosols of Narrow Size Distributions

J. Colloid Interface Sci. **31** (1969) 257.

BCC-769

M. Fugaš and R. Pauković
Institute for Medical Research, Zagreb (Yugoslavia)

Microdetermination of Lead as Chromate by the Ring-oven Technique

Anal. Chim. Acta **49** (1969) 356.

BCC-770

E. Gey, Z. B. Maksić, and B. Trinajstić
Institut für Physikalische Chemie der Deutschen Akademie der Wissenschaften zu Berlin, Berlin-Adlershof (DDR) and Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Localised Molecular Orbitals in Simple Polyatomic Molecules

J. Mol. Structure **3** (1969) 21.

BCC-771

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

Absolute Configurations and Rotation of 1-Methyl-2-methylenenorbornane and 1,2-Dimethyl-2-norbornyl Derivatives

J. Org. Chem. **34** (1969) 624.

BCC-772

I. Grgić, B. Štraus i M. Fišer-Herman
Klinički laboratorij Vojne bolnice, Zagreb i Zavod za medicinsku biokemiju, Farmaceutsko-biokemijski fakultet Sveučilišta u Zagrebu

Metoda za određivanje aktivnosti glutaminaze I u krvnom serumu

Acta Pharm. Jugoslav. **19** (1969) 15.

BCC-773

V. Hankonyi and V. Karas-Gašparec
Institute of Chemistry and Biochemistry, Faculty of Medicine, Zagreb, Yugoslavia

Determination of Pentaerythritol Tetranitrate and Other Nitric Acid Esters with *p*-Nitroaniline and Azulene

Anal. Chem. **41** (1969) 1849.

BCC-774

H. Hüther, L. Klasinc, F. Kajfež, and V. Šunjić
Institut für Strahlenchemie, Kernforschungszentrum Karlsruhe (Germany); Faculty of Pharmacy, University of Zagreb (Yugoslavia); Institute »Ruđer Bošković«, Zagreb (Yugoslavia); »Krka« Research and Development Institute, Novo Mesto (Yugoslavia)

An NMR-Study of 1-Substituted 2-Methyl-4(5)-nitroimidazoles

J. Mol. Structure **4** (1969) 108.

BCC-775

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Institut za antibiotike, farmaciju i tehnologiju, »Krka«, tvornica farmaceutskih proizvoda, Novo Mesto

Imidazol i njegovi derivati. I. Upotreba 1-supstituiranih derivata imidazola u medicini

Farm. Glasnik **25** (1969) 1.

BCC-776

F. Kajfež, N. Blažević i V. Šunjić
Institut za antibiotike, farmaciju i tehnologiju, »Krka«, tvornica farmaceutskih proizvoda, Novo Mesto

Imidazol i njegovi derivati. II. Sinteza nekih 1-(ω′-halogenalkil) i 1-alkoksimetil-2-metil-4 ili 5-nitroimidazola

Farm. Glasnik **25** (1969) 49.

BCC-777

F. Kajfež, N. Blažević i V. Šunjić
Institut za antibiotike, farmaciju i tehnologiju, »Krka«, tvornica farmaceutskih proizvoda, Novo Mesto

Imidazol i njegovi derivati. III. Biološka svojstva imidazola i njegovih derivata

Farm. Glasnik **25** (1969) 97.

BCC-778

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A Theoretical Study of T-T-Absorption Spectra of 1- and 2-Substituted Naphthalenes

Chem. Phys. Letters **3** (1969) 107.

BCC-779

S. Levine, A. L. Smith, and E. Matijević
Department of Mathematics, University of Manchester, Manchester, England; Department of Chemistry, Liverpool College of Technology, Liverpool, England; and Department of Chemistry, Clarkson College of Technology, Potsdam, N. Y. 13676

A Theory of Adsorption from Water-Methanol Mixtures onto a Solid at the Zero Point of Charge

J. Colloid Interface Sci. **31** (1969) 409.

BCC-780

J. Loboda-Čačković, R. Hosemann und W. Wilke
»Ruđer Bošković« Institut, Zagreb (Jugoslawien) und Fritz-Haber-Institut der Max-Planck Gesellschaft, Berlin-Dahlem

Röntgenkleinwinkel- und Dichtemessungen an verstreckten und getempertem linearem Polyäthylen

Kolloid-Z. Z. Polymere **235** (1969) 1162.

BCC-781

J. Loboda-Čačković, R. Hosemann und W. Wilke
»Ruđer Bošković« Institut, Zagreb (Jugoslawien) und Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin-Dahlem

Kernresonanzuntersuchungen an verstrecktem und getempertem linearem Polyäthylen

Kolloid-Z. Z. Polymere **235** (1969) 1253.

BCC-782

Lj. Lovrić
INA Research and Development Institute, Zagreb, Croatia, Yugoslavia

Fractionation of Styrene-Acrylonitrile Copolymers

J. Polym. Sci., A-2 **7** (1969) 1357.

BCC-783

B. Lovreček and I. Mekjavić
Institute of Electrochemistry and Electrochemical Technology, Faculty of Technology, University of Zagreb, and Institute of Physics, Faculty of Chemical Technology, Split, University of Zagreb, Yugoslavia

Kinetics of the Electrochemical Deposition and Dissolution of Bismuth

Electrochim. Acta **14** (1969) 301.

BCC-784

Z. Majerski and P. von R. Schleyer
Department of Chemistry, Princeton University, Princeton, New Jersey 08540

A New Synthesis of Dicyclopropylcarbinoxymethanes; Byproducts in the Simmons-Smith Reaction with Allyl Alcohols

J. Org. Chem. **34** (1969) 3215.

BCC-785

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

A Correlation Between the Acidity and Hybridization in Non-Conjugated Hydrocarbons

Tetrahedron **25** (1969) 5113.

BCC-786

Z. B. Maksić and Lj. Vujisić
Institute »Ruđer Bošković«, Zagreb, Yugoslavia

Bent Bonds in *cis*-1,2,3-Tricyanocyclopropane

Theoret. Chim. Acta **14** (1969) 396.

BCC-787

E. Matijević, N. Kolak, and D. L. Catone
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam, N. Y. 13676

Interactions of Silver Halides with Metal Chelates and Chelating Agents

J. Phys. Chem. **73** (1969) 3556.

BCC-788

E. Matijević, A. Watanabe, and M. Kerker
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam, N. Y. (U. S. A.)

Precipitation and Complex Solubility of Zirconium Sulfate

Kolloid-Z. Z. Polymere **235** (1969) 1200.

BCC-789

M. Movrin
Zavod za farmaceutsku kemiju, Farmaceutsko-biokemijski fakultet Sveučilišta u Zagrebu

Nachweis von Isonikotinsäure als Abbauprodukt von INH, INH-Derivaten und ihren Metaboliten im Biologischen Material

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **14** (1969) 141.

BCC-790

I. Piljac and R. T. Iwamoto
Department of Chemistry, University of Kansas, Lawrence, Kansas 66044 (U. S. A.)

The Hg/Hg_2Cl_2, KCl (saturated), $(C_2H_5)_4NClO_4$ (0.10F) Reference Electrode in Propylene Carbonate

J. Electroanal. Chem. **23** (1969) 484.

BCC-791

A. Radošević i D. Barković
Zavod za ispitivanje i kontrolu lijekova SRH, Zagreb i Zavod za farmaceutsku kemiju Farmaceutsko-biokemijskog fakulteta Sveučilišta u Zagrebu

Mikrobiološka ispitivanja berberina i nekih njegovih polusintetskih homologa na antibakterijsko i antimikotsko djelovanje

Acta Pharm. Jugoslav. **19** (1969) 75.

BCC-792

M. Slamnik and V. Šunjić
»Krka« Tvornica farmaceutskih i kemičkih proizvoda, Novo Mesto

Determination of Molecular Weight of Some Imidazole Derivatives by Means of UV-Spectra of Their Picrates

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **14** (1969) 76.

BCC-793

L. J. Stryker and E. Matijević
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam N. Y. 13676

A Method for the Determination of Surface Areas of Hydrophobic Colloids

J. Colloid Interface Sci. **31** (1969) 39.

BCC-794

L. J. Stryker and E. Matijević
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam, N.Y. (U. S. A.)

Interactions of Silver Halides Sol with Hydrolized Hafnium Species

Kolloid-Z. Z. Polymere **233** (1969) 912.

BCC-795

S. Šćavničar and B. Matković
Institute »Ruđer Bošković«, Zagreb, Yugoslavia

X-Ray Crystal Structure Analysis of Bis(pyridine *N*-oxide) Copper(II) Nitrate, $Cu(C_5H_5NO)_2(NO_3)_2$

Acta Cryst., Sect. B **25** (1969) 2046.

BCC-796

V. Šunjić, T. Fajdiga, N. Blažević, and F. Kajfež
Research Development Institute, Krka Pharmaceutical and Chemical Works, Novo Mesto and Faculty of Pharmacy and Biochemistry, University of Zagreb

1,1′-*Bis*-2-Methyl-4-(5)-nitroimidazoles

Acta Pharm. Jugoslav. **19** (1969) 65.

BCC-797

M. Tomašković, A. Balenović-Solter und Z. Štefanac
Institut für organische Chemie und Biochemie der Universität Zagreb

Über Metallkomplexe des 2,5-Dibenzoyl-3,4-dihydroxy-selenophens

Mikrochim. Acta (1969) 1156.

BCC-798

B. Tomažič
»Ruđer Bošković« Institute, Zagreb, Croatia, (Yugoslavia)

Extraction of Traces of Cerium, Europium, Terbium, and Lutetium from Uranium (VI) Solutions with D-2-Ethyl Hexyl Phosphoric Acid

Anal. Chim. Acta **49** (1969) 57.

BCC-799

V. Vukčević-Kovačević and S. Šeremet
Zavod za farmaceutsku kemiju, Farmaceutsko-biokemijski fakultet Sveučilišta u Zagrebu

Quantitative Analysis of As(III), Sb(III) and Bi in Mixture after Resolution by Thin-Layer Chromatography

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **14** (1969) 377.

BCC-800

K. Weber, J. Matković und M. Bušljeta
Institut für Medizinische Forschung und Arbeitsmedizin der jugoslavischen Akademie der Wissenschaft in Zagreb

Die Bestimmung insektizider Phosphorsäure-Ester mit Hilfe der Chemilumineszenz des Luminols

Acta Pharm. Jugoslav. **19** (1969) 47.

1970

BCC-801

K. Adamić, D. F. Bowman, and K. U. Ingold
Division of Chemistry, National Research Council of Canada, Ottawa, Canada

Self-Reaction of Diethylnitroxide Radicals

J. Am. Chem. Soc. **92** (1970) 1093.

BCC-802

L. H. Allen and E. Matijević
Institute of Colloid and Surface Science and Department of Chemistry, Clarkson College of Technology, Potsdam, New York 13676

Stability of Colloidal Silica. II. Ion Exchange

J. Colloid Interface Sci. **33** (1970) 420.

BCC-803

Z. Balenović, M. N. Myers, and J. C. Giddings
Department of Chemistry, University of Utah, Salt Lake City, Utah 84112

Binary Diffusion in Dense Gases to 1360 atm. by the Chromatographic Peak-Broadening Method

J. Chem. Phys. **52** (1970) 915.

BCC-804

R. Balenović and S. Turina
Pharmaceutical and Chemical Works, Pliva« Zagreb (Yugoslavia) and University Institute of Inorganic and Analytical Chemistry Zagreb (Yugoslavia)

$\Delta R_{M(stand)}$ as a Reliable Value for Identification Purposes in Thin-Layer Chromatography

J. Chromatog. **48** (1970) 22.

BCC-805

N. Blažević, F. Kajfež, and V. Šunjić
Faculty of Pharmacy and Biochemistry, University of Zagreb
α Values of Some Nitroimidazoles
J. Heterocyclic Chem. **7** (1970) 227.

BCC-806

N. Bregant und Z. Turk
Zavod za organsku kemiju i biokemiju Prirodoslovno-matematičkog fakulteta u Zagrebu i Institut za organsku kemiju i biokemiju Sveučilišta u Zagrebu
Russularhodine, Farbstoffe aus *Russula Emetica Schaeff*
Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **15** (1970) 158.

BCC-807

N. Brničević and C. Djordjević
Institute »Ruđer Bošković« and Laboratory of Analytical Chemistry, Faculty of Science, The University, Zagreb (Yugoslavia)
Co-ordination Complexes of Niobium and Tantalum. X. Polymeric Oxo-oxalato Tantalates(V)
J. Less-Common Metals **21** (1970) 469.

BCC-808

M. Bulat, S. Iskrić, L. Stančić, S. Kveder, and B. Živković
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia
The Formation of 5-Hydroxy Tryptophol from Exgenous 5-Hydroxy Tryptamine in Cat Spinal Cord *in vivo*
J. Pharm. Pharmacol. **22** (1970) 67.

BCC-809

Chao-Ming-Huang, M. Kerker, E. Matijević, and D. D. Cooke
Department of Chemistry and Institute of Colloid and Surface Science, Clarkson College of Technology, Potsdam, New York 13676
Aerosol Studies by Light Scattering. VII. Preparation and Particle-Size Distribution of Linolenic Acid Aerosols
J. Colloid Interface Sci. **33** (1970) 244.

BCC-810

T. Cvitaš
Chemistry Department, The University, Reading, England
Rotational band contour analysis in the 2700 Å system of bromobenzene
Mol. Phys. **19** (1970) 297.

BCC-811

T. Cvitaš and J. M. Hollas
Chemistry Department, University of Reading, Reading, Berkshire
Rotational band contour analysis in the 2700 Å system of chlorobenzene
Mol. Phys. **18** (1970) 101.

BCC-812

T. Cvitaš and J. M. Hollas
Chemistry Department, University of Reading, Reading, Berkshire
Rotational band contour analysis in the 2700 Å system of *p*-chlorofluorobenzene
Mol. Phys. **18** (1970) 261.

BCC-813

T. Cvitaš, J. M. Hollas, and G. M. Kirby
Chemistry Department, University of Reading, Reading, England
Interpretation of rotational constants of the first singlet excited state of substituted benzenes in terms of molecular geometry
Mol. Phys. **19** (1970) 305.

BCC-814

A. Častek, Lj. Gospočić, K. Kljaić, and M. Prošteník
Zavod za kemiju i biokemiju Medicinskog fakulteta i Institut za organsku kemiju i biokemiju Sveučilišta u Zagrebu

Synthesis of Long-Chain Alkynes

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **15** (1970) 157.

BCC-815

C. Djordjević and V. Katović
Institute »Ruđer Bošković« and Laboratory of Analytical Chemistry, Faculty of Science, The University, Zagreb (Yugoslavia)

Co-ordination Complexes of niobium and tantalum. IX. Polymeric oxo-chloro-alkoxo-dipyridyl derivatives of niobium(V) and tantalum(V)

J. Less-Common Metals **21** (1970) 325.

BCC-816

A. Filip and M. Mirnik
Boris Kidrič Institute of Nuclear Sciences, Vinča and Faculty of Sciences, Zagreb. Yugoslavia

The Dependence of the Isotopic Exchange. Rate in the $Zn^{2+}/Zn(Hg)$ System on the Dielectric Constant of Mixed Solvents

Electrochim. Acta **15** (1970) 1337.

BCC-817

H. Füredi-Milhofer, B. Purgarić, Lj. Brečević, and N. Pavković
Department of Physical Chemistry, Institute »Ruđer Bošković«, Zagreb, Yugoslavia

Precipitation of Calcium Phosphates from Electrolyte Solutions. I. A Study of the Precipitates in the Physiological *p*H Region

Calc. Tiss. Res. **4** (Suppl.) (1970) 142.

BCC-818

N. Gerenčević and M. Prošteník
Zavod za kemiju i biokemiju Medicinskog fakulteta i Institut za organsku kemiju i biokemiju Sveučilišta u Zagrebu

***N*-Acyl Amino Acids in the Dakin-West Reaction: Replacements of the Acyl Groups**

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **15** (1970) 158.

BCC-819

J. Halpern and M. Pribanić
Department of Chemistry, Illinois Institute of Technology, Chicago, Illinois, 60616

The Hydrogenation of Pentacyanocobaltate(II) at High Pressures

Inorg. Chem. **9** (1970) 2616.

BCC-820

J. N. Herak
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

Electron Spin Resonance of Gamma-Irradiated Single Crystal of Dihydrouracil

J. Chem. Phys. **53** (1970) 576.

BCC-821

J. N. Herak
Institute »Ruđer Bošković«, Zagreb, Croatia, Yugoslavia

EPR Study of Radiation Damage of Deuterated Single Crystal of Thymidine

J. Chem. Phys. **52** (1970) 6440.

BCC-822

V. Jagodić and M. J. Herak
»Ruđer Bošković« Institute, Zagreb, Yugoslavia

Synthesis and physical properties of a novel aminophosphonic acid as an extracting agent for metals

J. Inorg. Nucl. Chem. **32** (1970) 1323.

BCC-823

L. Jakab and M. Randić
Institute for Atomic Physics, Zagreb, Yugoslavia and Institute »Ruđer Bošković«, Zagreb, Yugoslavia

A Laplace Transform Wave Function for the Hydrogen Molecule Ion Ground State

Chem. Phys. Letters **6** (1970) 569.

BCC-824

Lj. Jeftić and R. N. Adams
Department of Chemistry, University of Kansas, Lawrence, Kansas 66044

Electrochemical Oxidation Pathways of Benzo[α]pyrene

J. Am. Chem. Soc. **92** (1970) 1332.

BCC-825

Lj. Jeftić and S. Feldberg
Brookhaven National Laboratory, Upton, New York 11973

Identification of Pentacyanomonoaquochromate(III)

J. Am. Chem. Soc. **92** (1970) 5272.

BCC-826

Lj. Jeftić and G. Manning
Department of Chemistry, University of Kansas, Lawrence, Kansas 66044 (USA)

A Survey on the Electrochemical Reduction of Quinones

J. Electroanal. Chem. **26** (1970) 195.

BCC-827

H. H. G. Jellinek and F. Flajšman
Clarkson College of Technology, Potsdam, New York 13676

Chain Scission of Butyl Rubber by Nitrogen Dioxide in Absence and Presence of Air

J. Polym. Sci., A-1 **8** (1970) 711.

BCC-828

B. Kamenar, D. Grdenić, and C. K. Prout
Laboratory of General and Inorganic Chemistry, Faculty of Science, The University, Zagreb, Yugoslavia and Chemical Crystallography Laboratory, South Parks Road, Oxford, England

The Crystal and Molecular Structure of Racemic Potassium Di-μ-tartrato-diantimonate(III) Trihydrate (Racemic 'Tartar Emetic')

Acta Cryst. B **26** (1970) 181.

BCC-829

V. Katović and C. Djordjević
Institute »Ruđer Bošković«, Zagreb, Yugoslavia and the College William and Mary, Williamsburg, Virginia 23185

Coordination Complexes of Niobium and Tantalum. VII. Preparation and Infrared Spectra of Oxygen-18-Labeled Terminal and Bridging Monoxoniobium(V) Complexes and the Course of Coordinated Alkoxo Group Hydrolysis in Mixed-Ligand Niobium Complexes

Inorg. Chem. **9** (1970) 1720.

BCC-830

D. Keglević, A. Kornhauser, G. Roglić, and T. Kovač
Tracer Laboratory, Institute »Ruđer Bošković«, Zagreb, Yugoslavia
Glycosyl and Glucuronic Esters of Amino Acids. Synthetic Methods Leading to Fully Protected 1-O-(2-Acylamidoacyl)-α- and -β-D-Glucopyranoses and -Glucopyranuronates
Tetrahedron Lett. (1970) 2983.

BCC-831

L. Klasinc and K. Humski
»Ruđer Bošković« Institute, Zagreb, Yugoslavia
Molecular Orbital Calculations of the Acidcatalysed Hydrogen Exchange in Substituted Thiophenes
Z. Naturforsch. **25b** (1970) 324.

BCC-832

M. Likar, P. Schauer, M. Japelj, M. Globokar, M. Oklobdžija, A. Povše, and V. Šunjić
Institute of Microbiology, University of Ljubljana, and Research Development Institute, Krka, Pharmaceutical and Chemical Works, Novo Mesto, Yugoslavia
Synthesis and Antimicrobial Activity of Some Thenoyl Amides
J. Med. Chem. **13** (1970) 159.

BCC-833

Lj. Lovrić
INA-Research and Development Institute, Zagreb, Croatia, Yugoslavia
Molecular Weight Distribution Functions for Styrene Acrylonitrile Copolymers
J. Polym. Sci., A-2 **8** (1970) 807.

BCC-834

Z. Majerski, S. H. Liggero, and P. von R. Schleyer
Department of Chemistry, Princeton University, New Jersey 08540
The Synthesis of 2,4-Dehydrohomoadamantane
Chem. Commun. (1970) 949.

BCC-835

Z. Majerski, A. P. Wolf, and P. von R. Schleyer
Brookhaven National Laboratory, Upton, New York 11973, U. S. A. and Chemistry Department, Princeton University, Princeton, New Jersey 08540
Preparation of Ring Labelled Adamantane Derivatives. I. 2-Adamantanecarboxylic Acid-2-^{14}C and 2-Methyladamantane-2-^{14}C
J. Labelled Compds. **6** (1970) 179.

BCC-836

M. Makovec and Z. Ban
Institute »Ruđer Bošković«, Zagreb and Institute for Inorganic and Analytical Chemistry, The University of Zagreb (Yugoslavia)
The Crystal Structure of Thorium Carbohydrides, Part I: Cubic Thorium Carbohydride
J. Less-Common Metals **21** (1970) 169.

BCC-837

Z. B. Maksić and M. Randić
Institute »Ruđer Bošković«, Zagreb, (Yugoslavia)
Maximum Overlap Molecular Orbitals in Electron Defficient CH_5^+ and B_2H_6 Molecules
J. Mol. Structure **6** (1970) 215.

BCC-838

Z. B. Maksić and M. Randić
Institute »Ruđer Bošković«, Zagreb, (Yugoslavia)
Carbon-Carbon and Carbon-Hydrogen Bond Length-Bond Overlap Correlations
J. Am. Chem. Soc. **92** (1970) 424.

BCC-839

K. Moskaliuk, V. Marjanović, K. Mažuranić, A. Golubović und I. Eškinja
Institut für anorganische und analytische Chemie der Universität und Institut für analytische Chemie der technologischen Fakultet, Zagreb

Trennung von Kationen auf einem Filterpapierstreifen

Mikrochim. Acta (1970) 29.

BCC-840

N. Pravdić and D. Keglević
Tracer Laboratory, Institute »Ruđer Bošković«, Zagreb, (Yugoslavia)

N. M. R. Spectra of Acetylated 1-O-acyl-D-glucopyranoses and Acetylated Methyl 1-O-Acyl-D-Glucopyranuronates. Shielding Effect of the Aromatic Substituent on the 2-Acetoxyl Group

Carbohyd. Res. **12** (1970) 193.

BCC-841

N. Pravdić and H. Fletcher, Jr.
Department of Organic Chemistry and Biochemistry, »Ruđer Bošković« Institute, Zagreb (Yugoslavia) and National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Maryland 20014, (USA)

The Oxidation of 2-Acetamido-2-deoxyaldoses. Two Unsaturated Lactones from 2-Acetamido-2-deoxy-D-glucose, -D-mannose, and -D-galactose

Carbohyd. Res. **12** (1970) 471.

BCC-842

I. Ružić
Department of Physical Chemistry, Institute »Ruđer Bošković«, Zagreb, Croatia (Yugoslavia)

Logarithmic Analysis of Two Overlaping D. C. Polarographic Waves. II. Multistep Electrode Reaction

J. Electroanal. Chem. **25** (1970) 144.

BCC-843

Z. Štefanac, Z. Šliepčević, and Z. Raković-Tresić
Institute of Organic Chemistry and Biochemistry, University of Zagreb, Zagreb, Yugoslavia

Direct Microdetermination of Oxygen by Static Flash Combustion Pyrolysis

Microchem. J. **15** (1970) 218.

BCC-844

V. Šunjić, T. Fajdiga, and M. Japelj
Research-Development Institute, Krka, Pharmaceutical and Chemical Works, Novo Mesto

Reactions of Some 1-(Carboxyalkyl)nitroimidazole Derivatives in Polyphosphonic Acid

J. Heterocyclic Chem. **7** (1970) 211.

BCC-845

N. E. Tokel, V. Katović, K. Farmery, L. B. Anderson, and D. H. Busch
Department of Chemistry, The Ohio State University, Columbus, Ohio 43210

Mutual Ligand-Metal Ion Oxidation State Stabilization in a System Containing a Quadridentate Macrocycle Analogous to the Porphyrin Ring

J. Am. Chem. Soc. **92** (1970) 400.

BCC-846

Ž. Trgovčević and Ž. Kućan
Institute »Ruđer Bošković«, Zagreb, Yugoslavia

Is DNA Polymerase Involved in DNA Degradation Following Ionizing Radiation?

Nature **226** (1970) 752.

BCC-847

S. Turina and M. Kaštelan-Macan
University Institute of Inorganic and Analytical Chemistry, Zagreb (Yugoslavia)

The Identification of a Small Amount of a Substance Overlapped by a Large Amount of Another Substance

J. Chromatog. **48** (1970) 35.

BCC-848

A. Velenik and R. M. Lynden-Bell
Chemical Laboratory, University of Sussex, Brighton BN1 9QJ

Chemical Shift Calculations for Carbon, Nitrogen and Oxygen in Simple Molecules

Mol. Phys. **19** (1970) 371.

BCC-849

V. Vukčević-Kovačević
Zavod za farmaceutsku kemiju, Farmaceutsko-biokemijski fakultet Sveučilišta u Zagrebu

Qualitative Systematic Analysis of Analgesic Mixtures by Thin-Layer Filtration Chromatography

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **15** (1970) 238.

BCC-850

R. Vuković and V. Gnjatović
Research Institute INA, Zagreb, Yugoslavia

Characterization of Styrene-Acrylonitrile Copolymer by Pyrolysis Gas Chromatography

J. Polym. Sci., A-1 **8** (1970) 139.

BCC-851

M. Weinert and M. Proštenik
Zavod za kemiju i biokemiju Medicinskog fakulteta i Institut za organsku kemiju i biokemiju Sveučilišta u Zagrebu

Studies in the Sphingolipids Series. XXX. The Chemical Conversion of Glucocerebrosides to Phytosphingosine Containing Analogues

Bull. Sci. Cons. Acad. Sci. Arts RSF Yougoslavie, Sect. A **15** (1970) 309.