

DOCUMENTA CHEMICA YUGOSLAVICA

CROATICA
CHEMICA ACTA

(ARHIV ZA KEMIJU)

VOL. 36

INDEX

Z A G R E B
YUGOSLAVIA

1964

Croat. Chem. Acta

CROATICA CHEMICA ACTA

Adresa redakcije

Address of the Editorial Board

CROATICA CHEMICA ACTA

19 Marulićev trg, Zagreb, Croatia, Yugoslavia

REDAKCIONI ODBOR — EDITORIAL BOARD

Glavni urednik — Editor

Božo Težak

Pomoćni urednici — Assistant Editors

Nevenka Pravdić, Velimir Pravdić i Petar Strohal

Tajnik — Secretary

Dina Keglević

Pomoćni tajnik — Assistant Secretary

Vera Mikulčić

Članovi odbora — Members

S. Ašperger, S. Borčić, M. Dadić, J. Dugošević, C. Djordjević, I. Filipović, D. Fleš,
H. Iveković, Z. Ježić, Z. Konrad, B. Lovreček, S. Maričić, P. Mildner, M. Proštenik,
M. Randić, D. Sunko, V. Škarić, M. Tišler, V. Tomašić i O. Weber

SADRŽAJ — CONTENTS

ORIGINALNI ZNANSTVENI RADOVI — ORIGINAL SCIENTIFIC PAPERS

FIZIČKA I ANORGANSKA KEMIJA — PHYSICAL AND INORGANIC CHEMISTRY

- M. M. Paunović:** Growth and Decay of Activation Overpotential for Systems which Proceed by Two Different Successive Transfer Electrode Reactions (*Promjena aktivacionog nadnapona sa vremenom za sisteme sa višestepe-nim elektrodnim reakcijama*) 1
- M. Zebec, Gj. Deželić N. Deželić, J. P. Kratochvil, and K. F. Schulz:** Physico-chemical Studies of Dextran. I. Characterization of Clinical Samples (*Fizičko-kemijske studije dekstrana. I. Karakterizacija kliničkih uzoraka*) 13
- M. J. Herak and V. Jagodić:** Solvent Extraction and Separation of Europium(III) and Terbium(III) from Uranium(VI) by Monoocetyl-analinobenzylphospho-nate (*Ekstrakcija europija(III) i terbija(III) i njihova separacija od ura-na(VI) pomoću monooktilnog estera anilinobenzilfosfonske kiseline*) 51
- D. Težak and B. Težak:** Methorics of the Precipitation Processes. XIX. Fluorescence of Sodium Fluoresceinate, Rhodamine B and their Mixtures, as a Function of Hydrogen Ion Concentration in Water Solutions (*Metorika precipitacionih procesa. XIX. Fluorescencija natrijeva fluoresceinata, rodamina B i njihove smjese u ovisnosti o koncentraciji vodikovih iona u vodenim otopinama*) 59
- G. T. Jones, M. Randić and J. J. Turner:** The NMR Spectra of Allyl alcohol- d_2 and Allyl Alcohol (*NMR spektri alil alkohola- d_2 i alil alkohola*) 111
- H. Füredi and B. Težak:** Precipitation and Hydrolysis of Uranium(VI) in Aqueous Solutions. II. Uranyl Nitrate — Sodium Carbonate — Alkaline Earth Chlorides (*Taloženje i hidroliza urana(VI) u vodenim otopinama. II. Uranil nitrat-natrijev karbonat-kloridi alkalnih zemalja*) 119
- E. Palić-Schütz, D. Težak and B. Težak:** Methorics of the Precipitation Processes. XX. Silver Salts of Dyes of the Fluorescein Group (Fluorescein, Eosin and Erythrosin) in Aqueous Medium (*Metorika precipitacionih procesa. XX. Srebrne soli boja fluoresceinske grupe (fluoresceina, ezina, eritrozina) u vodenome mediju*) 133
- Z. Ban and M. Sikirica:** The Preparation and Crystal Structure of Some Ternary Silicides Containing Uranium and Transition Metals (*Preparacija i kristalna struktura nekih ternarnih silicida koji sadrže uran i prelazne metale*) 143
- M. Sikirica and Z. Ban:** Thorium — Transition Metals Ternary Germanides (*Ternarni germanidi torija s prelaznim metalima*) 151
- S. Ašperger, L. Klasinc and D. Pavlović:** Secondary α -Deuterium Isotope Effects in the Reaction of 2-Phenyl-ethyltrimethylammonium Ion by Hydroxide Ion in Aqueous Solution and by Ethoxide Ion in Ethanol (*Sekundarni α -deuterijski izotopski efekti u reakciji 2-fenil-etiltrimetilamonijeva iona sa hidroksilnim ionom u vodenj otopini i sa etoksi ionom u etanolu*) 159
- H. Füredi:** Precipitation and Hydrolysis of Uranium(VI) in Aqueous Solutions. III. Uranyl Nitrate — Sodium Carbonate — Strontium Chloride (*Taloženje i hidroliza urana(VI) u vodenim otopinama. III. Uranil nitrat — natrijev karbonat — stroncijev klorid*) 195
- S. Ašperger, D. Pavlović, L. Klasinc, D. Stefanović, and I. Murati:** α -Hydrogen Exchange in the Reaction of 2-Phenylethyldimethylsulphonium Ion with Base in Aqueous Solution and of 2-Phenylethyltrimethylammonium Ion

- with Base in Aqueous and Alcoholic Solution (*Izmjena α -vodika u reakciji 2-feniletildimetilsulfonijeva iona s bazom u vodenoj otopini i 2-feniletiltrimetilamonijeva iona s bazom u vodenoj i alkoholnoj otopini*) 209

ANALITIČKA KEMIJA — ANALYTICAL CHEMISTRY

- B. Tomazič and M. Branica:** Determination of Barium in Uranium Compounds by Conductometric Titration (*Određivanje barija u talozima urana konduktometrijskom titracijom*) 9
- M. J. Herak and D. F. C. Morris:** Neutron Activation Analysis of Traces of Palladium, Gold, and Iridium in Supernates from the Refining of Precious Metals (*Neutronska aktivaciona analiza tragova paladijuma, iridijuma i zlata u matičnim otopinama kod rafinacije plemenitih metala*) 67
- I. Filipović and I. Piljac:** Polarographic Investigations of Some Metal Monocarboxylate Complexes. IV. Influence of Monocarboxylic Acid on the Half-wave Potential of Metal Ions (*Polarografska istraživanja monokarboksilato-kompleksa nekih metala. IV. Utjecaj monokarboksilne kiseline na poluvalni potencijal metalnog iona*) 181

ORGANSKA KEMIJA I BIOKEMIJA — ORGANIC CHEMISTRY AND BIOCHEMISTRY

- D. Fleš and T. Ghyczy:** The Absolute Configuration of 3-Carboxypyrrolidine [β -Proline] (*Apsolutna konfiguracija 3-karboksipirolidina [β -prolina]*) 27
- R. C. Elderfield and D. Kolbah:** Synthesis of Potential Anti-Cancer Agents. XVII. Urea Nitrogen Mustards (*Sinteza potencijalnih antikancerogenih supstancija. XVII. Uree diklordietilamina*) 33
- M. Dadić and D. Fleš:** Studies in the Propiothiolactone Series. IV. Reaction of β -Benzylmercaptopropionyl Chloride with Benzene in the Presence of Aluminum Bromide (*Studije u redu propiotiolaktona. IV. Reakcija β -benzilmercaptopropionil klorida s benzenom u prisutnosti aluminijeva bromida*) 37
- N. Pravdić and D. Keglević:** Glucuronic Esters. II. The Preparation of Anomeric Methyl 2,3,4-tri-O-acetyl-1-O-acyl-D-glucopyranuronates. Deacylation of D-Glucuronic Acid Derivatives in Alkaline Medium (*Ester glukuronidi. II. Priprava anomera metil 2,3,4-tri-O-acetil-1-O-acil-D-glukopiranonata. Deaciliranje derivata glukuronske kiseline u alkalnom mediju*) 73
- B. Stanovnik and M. Tišler:** Syntheses of Pyridazine Derivatives. I. Structure of 3-Mercapto-6(1H)-pyridazinethione and its Addition to Some Unsaturated Systems (*Sinteze piridazinovih derivatov. I. Struktura 3-merkaptio-6(1H)-piridazintiona in adicija na nekatere nenasićene sisteme*) 81
- V. Škarić, B. Gašpert, and Đ. Škarić:** Hydropyrimidines II. Observations on Selective Hydrogenation of Some Hydroxypyrimidines (*Hidropirimidini. II. Prilog poznavanju selektivnog hidriranja nekih hidroksipirimidina*) 87
- D. Desaty and D. Keglević:** Indole Compounds. III. The Direct Indolization to 5-Methoxy- and 5-Benzoyloxy-N,N-Disubstituted Tryptamines (*Indolski spojevi. III. Izravna indolizacija u 5-metoksi- i 5-benziloksi-N,N-disubstituirane triptamine*) 103
- K. Blažević, N. Pravdić und V. Hahn:** Zur Kenntnis der 2-(2'-Furyl)-benzthiazole. Thioamide. V. Mitteilung (*Prilog poznavanju 2-(2'furyl)-benzthiazola. Thioamidi. V. priopćenje*) 215
- V. Škarić, V. Turjak-Zebić, M. Branica, and Đ. Škarić:** 4,5,6,7-Tetrahydroindazol-3-one Carboxylic Acids. IV. Acid Dissociation Constants and Complex Formation with Calcium, Strontium and Barium (*4,5,6,7-Tetrahydroindazol-3-on karbonske kiseline. IV. Konstante disocijacija i stvaranje kompleksa sa kalcijem, stroncijem i barijem*) 221

BILJEŠKE — NOTES

M. Nikoletić-Valenteković: A Modified Synthesis of Methyl- d_3 Bromide (<i>Modificirana sinteza metil-d_3-bromida</i>)	43
B. Kamenar and M. Herceg: The Determination of Molybdenum, Uranium and Silicon in Molybdenum and Uranium Silicides (<i>Određivanje molibdena, urana i silicija u silicidima molibdena i urana</i>)	95
S. Fila-Hromadko: Note on the Synthesis of [2-(Octahydro-1-azocinyl)ethyl] Guanidine Sulfate (<i>Sinteza [2-(oktahidro-1-azocinil-etil)] gvanidin sulfata</i>)	99
M. Kesler: Structural Investigations of Alkyl Mercury Sulphide, Alkyl Mercury Oxyde and Alkyl Mercury Selenide by Dipole Moment Method (<i>Strukturna istraživanja alkilmerkuri sulfida, alkilmerkuri oksida i alkilmerkuri selenida metodom dipolnog momenta</i>)	165
B. Stanovnik and M. Tišler: Note on the Formation of 2,5-Dianilino-1,3,4-thiadiazole (<i>Beležka o tvorbi 2,5-dianilino-1,3,4-tiadiazola</i>)	169
M. Vlatković and R. Despotović: The Preparation of Sodium Perchlorate Labeled with Chlorine-36 (<i>Priprava natrijeva perklorata označenog klorom-36</i>)	171
Z. Majerski and Z. Meić: An Infrared Cell for Kinetic Studies of Liquid Samples (<i>Celija za kinetičke studije tekućih uzoraka metodom infracrvene spektroskopije</i>)	233
R. Despotović and M. Mić: An Apparatus for Continuous Measurement of Radioactivity of Liquids in Systems »Solid — Liquid« (<i>Aparat za kontinuirano mjerenje promjene radioaktivnosti tekućina u sistemima »kruto-tekuće«</i>)	237

PRETHODNA SAOPĆENJA — PRELIMINARY NOTES

B. Frlec, B. S. Brčić and J. Slivnik: Untersuchungen im System $N_2H_6F_2$ - UF_6 -HF (<i>Raziskovanje v sistemu $N_2H_6F_2$-UF_6-HF</i>)	173
O. A. Weber and V. Simeon: On the Stability of Metal Complexes with Racemic Ligands (<i>O stabilnosti kompleksa metala s racemičnim ligandima</i>)	241

RECENZIJE — BOOK REVIEWS

<i>Comprehensive Biochemistry</i> , Section I: <i>Physico-Chemical and Organic Aspects of Biochemistry</i> , Edited by M. Florkin and E. H. Stotz (Gj. Deželić)	45
Houben-Weyl: <i>Methoden der organischen Chemie</i> , Band VI/2, <i>Sauerstoffverbindungen I</i> , Teil 2 (V. Seke)	46
I. M. Heis and K. Macek: <i>Handbuch der Papierchromatographie</i> (S. Iskrić)	47
<i>Progress in Nuclear Energy</i> , Series IX., Volume 3, Part 4, Edited by C. E. Crouthamel (P. Strohal)	48
<i>Progress in Nuclear Energy</i> , Series IX., Volume 3, Parts 5, 6, 7, Edited by C. E. Crouthamel (P. Strohal)	48
<i>Standard Methods of Chemical Analysis</i> , Edited by F. J. Welcher (A. Medved)	49
L. Meites: <i>Handbuch of Analytical Chemistry</i> (P. Strohal)	50
A. K. Lavrukhina, T. V. Mališeva i F. J. Pavlockaja: <i>Radiohimičeskij analiz</i> (P. Strohal)	101
F. Ja. Kuljba i V. Je. Mironov: <i>Himija talija</i> (P. Strohal)	101
<i>Rodd's Chemistry of Carbon Compounds</i> (V. Škarić)	175
Janos Inczedy: <i>Analytische Anwendungen von Ionenaustauschern</i> (Š. Mesarić)	175
C. Sandorfy: <i>Electronic Spectra and Quantum Chemistry</i> (M. Randić)	245
G. W. King: <i>Spectroscopy and Molecular Structure</i> (M. Randić)	245
A. E. Čičibabin: <i>Osnovna načela organske kemije</i> (E. Cerkovnikov)	246
J. D. Roberts and M. C. Caserio: <i>Basic Principles of Organic Chemistry</i> (D Sunko)	247

V. Majer: <i>Zaklady Jaderne Chemie</i> (P. Strohal)	248
<i>Analytical Chemistry of Nuclear Materials</i> (P. Strohal)	249

NEKROLOZI — OBITUARIES

Prof. Maks Samec (B. Težak)	177
Prof. Panta Tutundžić (B. Težak)	179

PRILOG — APPENDIX

Redovita godišnja skupština Hrvatskoga kemijskog društva za godinu 1964.	A1
Kolokviji Hrvatskoga kemijskog društva	A8
Popis novih članova Hrvatskoga kemijskog društva	A9

BIBLIOGRAPHIA CHEMICA CROATICA

<i>Dissertationes</i> (DCC-14)	B1
Radovi (<i>Papers</i>)	B3
<i>Master of Science Theses</i> (MCC-3, MCC-4)	B7
Radovi (<i>Papers</i>)	B11
Prijedlog jugoslavenske nomenklature anorganske kemije	C1

INDEX

1964

INDEKS PO AUTORIMA — AUTHOR INDEX

- ORIGINALNI ZNANSTVENI RADOVI (O) — ORIGINAL SCIENTIFIC PAPERS (O)
 BILJEŠKE (B) — NOTES (B)
 PRETHODNA SAOPĆENJA (S) — PRELIMINARY NOTES (S)
- Ašperger, S., Klasinc, L., and Pavlović, D.:** Secondary α -Deuterium Isotope Effects in the Reaction of 2-Phenylethyltrimethylammonium Ion by Hydroxide Ion in Aqueous Solution and by Ethoxide Ion in Ethanol (O) 159
- Ašperger, S., Pavlović, D., Klasinc, L., Stefanović, D., and Murati, I.:** α -Hydrogen Exchange in the Reaction of 2-Phenylethyldimethylsulphonium Ion with Base in Aqueous Solution and of 2-Phenylethyltrimethylammonium Ion with Base in Aqueous and Alcoholic Solution (O) 209
- Ban, Z. and Sikirica, M.:** The Preparation and Crystal Structure of Some Ternary Silicides Containing Uranium and Transition Metals (O) 143
- Ban, Z.:** vidi **Sikirica, M.**
- Blažević, K., Pravdić, N. und Hahn, V.:** Zur Kenntnis der 2-(2'-Furyl)-benzthiazole. Thioamide. V. Mitteilung (O) 215
- Branica, M.:** vidi **Škarić, V.**
- Branica, M.:** vidi **Tomazić, B.**
- Brčić, B. S.:** vidi **Frlec, B.**
- Dadić, M. and Fleš, D.:** Studies in the Propiothiolactone Series. IV. Reaction of β -Benzyl-mercaptopropionyl Chloride with Benzene in the Presence of Aluminum Bromide (O) 37
- Desaty, D. and Keglević, D.:** Indole Compounds. III. The Direct Indolization to 5-Methoxy- and 5-Benzoyloxy-*N,N*-Disubstituted Tryptamines (O) 103
- Despotović, R. and Mić, M.:** An Apparatus for Continuous Measurement of Radioactivity of Liquids in Systems »Solid — Liquid« (B) 237
- Despotović, R.:** vidi **Vlatković, M.**
- Deželić, Gj.:** vidi **Zebec, M.**
- Deželić, N.:** vidi **Zebec, M.**
- Elderfield, R. C. and Kolbah, D.:** Synthesis of Potential Anti-Cancer Agents. XVII. Urea Nitrogen Mustards (O) 33
- Fila-Hromadko, S.:** Note on the Synthesis of [2-(Octahydro-1-azocinyl)ethyl] Guanidine Sulfate (B) 99
- Filipović, I. and Piljac, I.:** Polarographic Investigations of Some Metal Monocarboxylate Complexes. IV. Influence of Monocarboxylic Acid on the Half-wave Potential of Metal Ions (O) 181
- Fleš, D. and Ghyczy, T.:** The Absolute Configuration of 3-Carboxypyrrolidine (β -Proline) (O) 27
- Fleš, D.:** vidi **Dadić, M.**
- Frlec, B., Brčić, B. S., and Slivnik, J.:** Untersuchungen im System $N_2H_6F_2$ — UF_6 — HF (S) 173
- Füredi, H. and Težak, B.:** Precipitation and Hydrolysis of Uranium(VI) in Aqueous Solution. II. Uranyl Nitrate — Sodium Carbonate — Alkaline Earth Chlorides (O) 119

- Füredi, H.:** Precipitation and Hydrolysis of Uranium(VI) in Aqueous Solutions. III. Uranyl Nitrate — Sodium Carbonate — Strontium Chloride (O) . . . 195
- Gašpert, B.:** vidi **Škarić, V.**
- Ghyczy, T.:** vidi **Fleš, D.**
- Hahn, V.:** vidi **Blažević, K.**
- Herak, M. J. and Jagodić, V.:** Solvent Extraction and Separation of Europium(III) and Terbium(III) from Uranium(VI) by Monoocetyl-anilinobenzylphosphonate (O) . . . 51
- Herak, M. J. and Morris, D. F. C.:** Neutron Activation Analysis of Traces of Palladium, Gold, and Iridium in Supernates from Refining of Precious Metals (O) . . . 67
- Herceg, M.:** vidi **Kamenar, B.**
- Jagodić, V.:** vidi **Herak, M. J.**
- Jones, G. T., Randić, M., and Turner, J. J.:** The NMR Spectra of Allyl Alcohol- d_2 and Allyl Alcohol (O) . . . 111
- Kamenar, B. and Herceg, M.:** The Determination of Molybdenum, Uranium and Silicon in Molybdenum and Uranium Silicides (B) . . . 95
- Keglević, D.:** vidi **Desaty, D.**
- Keglević, D.:** vidi **Pravdić, N.**
- Kesler, M.:** Structural Investigations of Alkyl Mercury Sulphide, Alkyl Mercury Oxide and Alkyl Mercury Selenide by Dipole Moment Method (B) . . . 165
- Klasinc, L.:** vidi **Ašperger, S.**
- Kolbah, D.:** vidi **Elderfield, R. C.**
- Kratohvil, J. P.:** vidi **Zebec, M.**
- Majerski, Z. and Meić, Z.:** An Infrared Cell for Kinetic Studies of Liquid Samples (B) . . . 233
- Meić, Z.:** vidi **Majerski, Z.**
- Mić, M.:** vidi **Despotović, R.**
- Morris, D. F. C.:** vidi **Herak, M. J.**
- Murati, I.:** vidi **Ašperger, S.**
- Nikoletić-Valenteković, M.:** A Modified Synthesis of Methyl- d_3 Bromide (B) . . . 43
- Palić-Schütz, E., Težak, Đ., and Težak, B.:** Methorics of the Precipitation Processes. XX. Silver Salts of Dyes of the Fluorescein Group (Fluorescein, Eosin, and Erythrosin) in Aqueous Medium (O) . . . 133
- Paunović, M. M.:** Growth and Decay of Activation Overpotential for Systems which Proceed by Two Different Successive Transfer Electrode Reaction (O) . . . 1
- Pavlović, D.:** vidi **Ašperger, S.**
- Piljac, I.:** vidi **Filipović, I.**
- Pravdić, N. and Keglević, D.:** Glucuronic Esters. II. The Preparation of Anomeric Methyl 2,3,4 tri-O-acetyl-1-O-acyl-D-glucopyranuronates. Deacylation of D-Glucuronic Acid Derivatives in Alkaline Medium (O) . . . 73
- Pravdić, N.:** vidi **Blažević, K.**
- Randić, M.:** vidi **Jones, G. T.**
- Shulz, K. F.:** vidi **Zebec, M.**
- Sikirica, M. and Ban, Z.:** Thorium — Transition Metals Ternary Germanides (O) . . . 151
- Sikirica, M.:** vidi **Ban, Z.**
- Simeon, V.:** vidi **Weber, O. A.**
- Slivnik, J.:** vidi **Frlec, B.**
- Stanovnik, B. and Tišler, M.:** Syntheses of Pyridazine Derivatives. I. Structure of 3-Mercapto-6(1H)-pyridazinethione and its Addition to Some Unsaturated Systems (O) . . . 81
- Stanovnik, B. and Tišler, M.:** Note on the Formation of 2,5-Dianilino-1,3,4-thiadiazole (B) . . . 169

- Stefanović, D.:** vidi **Ašperger, S.**
- Škarić, Đ.:** vidi **Škarić, V.**
- Škarić, V., Gašpert, B., and Škarić, Đ.:** Hydroxypyrimidines. II. Observations on Selective Hydrogenation of Some Hydroxypyrimidines (O) 87
- Škarić, V., Turjak-Zebić, V., Branica, M., and Škarić, Đ.:** 4,5,6,7-Tetrahydroindazol-3-one Carboxylic Acids. IV. Acid Dissociation Constants and Complex Formation with Calcium, Strontium and Barium (O) 221
- Težak, B.:** vidi **Füredi, H.**
- Težak, B.:** vidi **Težak, Đ.**
- Težak, B.:** vidi **Palić-Schütz, E.**
- Težak, Đ. and Težak, B.:** Methorics of the Precipitation Processes. XIX. Fluorescence of Sodium Fluoresceinate, Rhodamine B and their Mixtures as a Function of Hydrogen Ion Concentration in Water Solution (O) 59
- Težak, Đ.:** vidi **Palić-Schütz, E.**
- Tišler, M.:** vidi **Stanovnik, B.**
- Tomazič, B. and Branica, M.:** Determination of Barium in Uranium Compounds by Conductometric Titration (O) 9
- Turjak-Zebić, V.:** vidi **Škarić, V.**
- Turner, J. J.:** vidi **Jones, G. T.**
- Vlatković, M. and Despotović, R.:** The Preparation of Sodium Perchlorate Labeled with Chlorine-36 (B) 171
- Weber, O. A. and Simeon, V.:** On the Stability of Metal Complexes with Racemic Ligands (S) 241
- Zebec, M., Deželić, G.j., Deželić, N., Kratochvíl, J. P., and Schulz, K. F.:** Physicochemical Studies of Dextran. I. Characterization of Clinical Samples (O) 13