

- K. S. Siddiqi,  
Parveen Khan,  
Saleem Khan,  
M. R. H. Siddiqi,  
and S. A. A. Zaidi**
- Transition Metal Complexes of  
 $\alpha$ -Naphthylamine Dithiocarbamate**
- $\alpha$ -Naphthylamine dithiocarbamate and its metal-ion complexes have been prepared. The Ni(II), Cu(II), and Pd(II) complexes have been found to be square planar while those with Ru(III), Rh(III), and Pt(IV) were proposed to be octahedral. The Co(II) ion seems to have a tetrahedral geometry . . . .
- 271—276
- Lj. D. Arsov,  
M. Froelicher,  
M. Froment, and  
A. Hugot Le-Goff**
- Application of Fresnel's Equation in  
Statistical Analysis of Ellipsometric Pa-  
rameters for the Determination of Op-  
tical Indexes of TiO<sub>2</sub> Films**
- Ellipsometric measurements and Fresnel's equation show that the optical indexes,  $n$  and  $k$ , of thin TiO<sub>2</sub> films decrease with the film thickness, assuming finally nearly constant values . . . .
- 277—282
- J. R. Chopra,  
A. N. Pandey,  
S. P. Sharma, and  
R. K. Agarwal**
- Infrared Studies of Some Selenocynato  
Complexes of Oxozirconium(IV) with  
O and N Donor Ligands**
- A structural study of complexes formed by oxozirconium(IV) with number of ligands. The influence of oxygen and nitrogen as donors is discussed . . . .
- 283—286
- M. B. Todorović,  
I. J. Gal,  
I. D. Paligorić,  
and V. M. Radak**
- Self-Diffusion of Cd<sup>++</sup> Ions in Hydrated  
CdX Zeolite**
- Kinetics of isotopic equilibrium attainment between Cd(NO<sub>3</sub>)<sub>2</sub> solution and <sup>115</sup>Cd-labelled CdX zeolite as a function of temperature and zeolite particle size, with Brown-Sherry-Krambeck model applied, and  $E_D = 26.0 \text{ kJ mol}^{-1}$ ,  $D_0 = 10^{-8.56} \text{ m}^2 \text{ s}^{-1}$  determined . . . .
- 287—293

- Terezija M. Šuranji and Nikola B. Milić** **Hydrolysis of the Thorium(IV) Ion in Magnesium, Calcium, Strontium, and Barium Chloride Media**  
 The extent of thorium(IV) hydrolysis decreases with the increasing concentration and hydration energy of medium ions. The results are in agreement with linear free-energy relationships proposed for metal-ion hydrolysis . . . . . 295—304
- Stanko Uršić** **Ferrocenylalkyl Carbocations. II. Contribution to the Problem of the Structure of Ferrocenylmethyl Carbocation**  
 A large kinetic secondary  $\alpha$ -deuterium isotope effect in solvolysis of ferrocenylmethylquinolinium ion was determined. This result indicates that direct iron-carbon participation is insignificant in the stabilisation of ferrocenylmethyl carbocation . . . . . 305—308
- Ivan Gutman** **Topological Properties of Benzenoid Systems. X. Note on a Graph-Theoretical Polynomial of Knop and Trinajstić**  
 A new graph theoretical polynomial  $T(G; x)$  was recently introduced by Knop and Trinajstić in *Internat. J. Quantum Chem. Symp.* **14** (1980) 503.  $T(G; x)$  differs from the sextet polynomial. The basic mathematical properties of  $T(G; x)$  are determined . . . . . 309—313
- Srećko Turina and Nina Blažević** **Determination of Silver in Aluminum by Thin Layer Chromatography**  
 Separation and concentration by coprecipitation coupled with thin layer chromatographic analysis has been applied for the determination of silver amounts in technical aluminium not exceeding 0.0020 per cent. Silver spots well separated from other coprecipitated heavy metals and cadmium ions chosen as collector were visualized with hydrogen sulfide and scanned with a fluorimeter. Concentration of silver in the samples was calculated by comparison with reference spots . . . . . 315—319

**Svjetlana Luterotti and Vladimir Grdinić** **Collection of Traces of Cadmium(II)-Ion on 2(3)-Alanine-N,N-Diacetic Acid Cellulose**

The high sorption efficiency of 2(3)-alanine-N,N-diacetic acid cellulose for metal ions was proved on model Cd(II)-ion. The comparison with less propitious Dowex A-1(Na<sup>+</sup>) resin was done, altering various experimental parameters . . . . .

321—326

**J. J. Herak, M. Kovačević and B. Gašpert**

**Ring Expansion of Thiazolidine and Nucleophilic Substitution in N-Acyl Derivatives of 6-Thia-3,8-diazabicyclo/3.2.1/octan-2-one**

Thiiranium ion is suggested as intermediate in rearrangement of 6-thia-3,8-diazabicyclooctan-2-one into 7-thia-2,5-diazabicyclooctan-3-one and nucleophilic substitution at beta-position to sulfur . . . . .

327—335

CROATICA  
CHEMICA ACTA

Croat. Chem. Acta Vol. 55 No. 3

271—336 A1—A18 C1—C2 (1982)

Zagreb, 1. listopada 1982

## SADRŽAJ

*Opća i teorijska kemija*

- Kompleksi  $\alpha$ -naftilamin-ditiokarbamata s prijelaznim metalima  
 . . . **K. S. Siddiqi, Parveen Khan, Saleem Khan, M. R. H. Siddiqi**  
 i **S. A. A. Zaidi** 271—276
- Elipsometrijsko određivanje optičkih indeksa filmova  $TiO_2$   
 . . . **Lj. D. Arsov, M. Froelicher, M. Froment i A. Hugot Le-Goff** 277—282
- IR studij oksocirkonij(IV) selenocijanato kompleksa s O i N donorskim  
 ligandima  
 . . . **J. R. Chopra, A. N. Pandey, S. P. Sharma i R. K. Agarwal** 283—286
- Samodifuzija  $Cd^{++}$  jona u hidratisanom CdX zeolitu  
 . . . **M. B. Todorović, I. J. Gal, I. D. Paligorić i V. M. Radak** 287—293
- Hidroliza torijum(IV)-jona u magnezijum, kalcijum, stroncijum i barijum  
 hloridnim sredinama . . . . . **Terezija M. Šuranji i Nikola B. Milić** 295—304
- Ferocetilalkil karbokationi. II. Doprinos problemu strukture ferocetil-  
 metil karbokationa . . . . . **Stanko Uršić** 305—308
- Topološka svojstva benzenoidnih sustava. X. Bilješka o jednom grafov-  
 skom polinomu Knopa i Trinajstića . . . . . **Ivan Gutman** 309—313

*Analitička kemija*

- Određivanje srebra u aluminiju tankoslojnom kromatografijom  
 . . . **Srećko Turina i Nina Blažević** 315—319
- Sakupljanje tragova kadmij(II)-iona na 2(3)-alanin-*N,N*-dioceteno kiseloj  
 celulozi . . . . . **Svjetlana Luterotti i Vladimir Grđinić** 321—326

*Kemijska Sinteza*

- Proširenje prstena tiazolidina i nukleofilna supstitucija *N*-acil derivata  
 6-tia-3,8-diazabiciklo[3.2.1]oktan-2-ona  
 . . . **J. J. Herak, M. Kovačević, and B. Gašpert** 327—335

*Prilozi*

- Prikazi knjiga . . . . . A1—A9
- Izvanredna skupština Hrvatskog kemijskog društva . . . . . A11—A17
- Obavijesti . . . . . C1

CROATICA  
CHEMICA ACTA

Croat. Chem. Acta Vol. 55 No. 3

271—336 A1—A18 C1—C2 (1982)

Zagreb, October 1, 1982

The contents of CCA may be reproduced, citing the original form  
in any medium without prior permission

## CONTENTS

*General and Theoretical Chemistry*

- Transition Metal Complexes of  $\alpha$ -Naphthylamine Dithiocarbamate  
. . . **K. S. Siddiqi, Parveen Khan, Saleem Khan, M. R. H. Siddiqi  
and S. A. A. Zaidi** 271—276
- Применение уравнений Френеля в статистическом анализе эллипсо-  
метрических данных — определение оптических показателей  
анодно полученных плёнок из  $TiO_2$   
. . . **Lj. D. Arsov, M. Froelicher, M. Froment et A. Hugot Le-Goff** 277—282
- Infrared Studies of Some Selenocyanato Complexes of Oxozirconium(IV)  
with O and N Donor Ligands  
. . . **J. R. Chopra, A. N. Pandey, S. P. Sharma, and R. K. Agarwal** 283—286
- Self-diffusion of  $Cd^{++}$  Ions in Hydrated  $CdX$  Zeolite  
. . . **M. B. Todorović, I. J. Gal, I. D. Paligorić, and V. M. Radak** 287—293
- Hydrolysis of the Thorium(IV) Ion in Magnesium, Calcium, Strontium and  
Barium Chloride Media . . . **Terezija M. Šuranji and Nikola B. Milić** 295—304
- Ferrocenylalkyl Carbocations. II. Contribution to the Problem of the  
Structure of Ferrocenylmethyl Carbocation . . . . . **Stanko Uršić** 305—308
- Topological Properties of Benzenoid Systems. X. Note on a Graph-Theoret-  
ical Polynomial of Knop and Trinajstić . . . . . **Ivan Gutman** 309—313

*Analytical Chemistry*

- Determination of Silver in Aluminum by Thin Layer Chromatography  
. . . **Srećko Turina and Nina Blažević** 315—319
- Collection of Traces of Cadmium(II)-Ion on 2(3)-Alanine-*N,N*-Diacetic  
Acid Cellulose . . . . . **Svjetlana Luterotti and Vladimir Grdinić** 321—326

*Chemical Synthesis*

- Ring Expansion of Thiazolidine and Nucleophilic Substitution in *N*-Acil  
Derivatives of 6-Thia-3,8-diazabicyclo[3.2.1]octan-2-one  
. . . **J. J. Herak, M. Kovačević, and B. Gašpert** 327—335

*Appendix*

- Book Reviews (In Croatian) . . . . . A1—A9
- Minutes of the Meeting of the Croatian Chemical Society (In Croatian) . A11—A17
- Announcements . . . . . C1