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**22<sup>nd</sup> Dubrovnik International Course & Conference  
MATH / CHEM / COMP 2007  
Dubrovnik  
June 11–16, 2007**

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**FOREWORD**

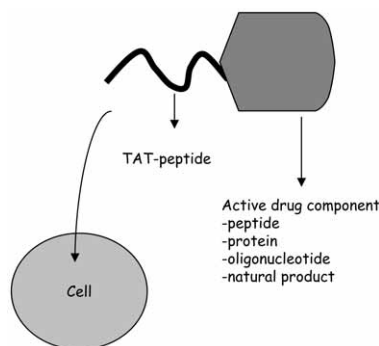
Ante Graovac, Biserka Pokrić, and Dražen Vikić-Topić

*Croat. Chem. Acta* 81 (2008) XXI**REVIEWS**

CCA-3234

**Drug Delivery by TAT-technology**

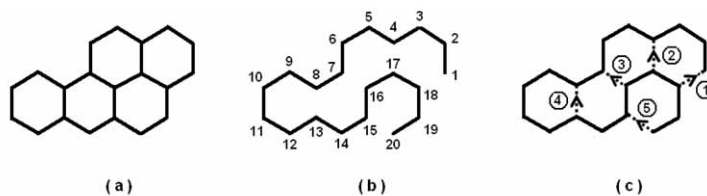
Mira Grdiša and Ana-Matea Mikecin

*Croat. Chem. Acta* 81 (2008) 223–226

CCA-3235

**Topological Ring-Currents in Condensed Benzenoid Hydrocarbons**

R. B. Mallion



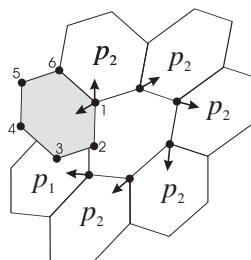
$$(J_i / J_{\text{benzene}}) = 9 \left\{ \sum_{(\mu)} [P_{(\mu)} \eta_{(\mu)} + \beta \bar{\pi}_{(\mu)(\mu)} (\eta_{(\mu)})^2] S_{(\mu)} C_{(\mu)}^i + \sum_{(\mu < \nu)} \beta \bar{\pi}_{(\mu)(\nu)} \eta_{(\mu)} \eta_{(\nu)} [S_{(\mu)} C_{(\nu)}^i + C_{(\mu)}^i S_{(\nu)}] \right\}$$

*Croat. Chem. Acta* 81 (2008) 227–246**ORIGINAL SCIENTIFIC PAPERS**

CCA-3236

**Growth in  $[n]$ helicenes**

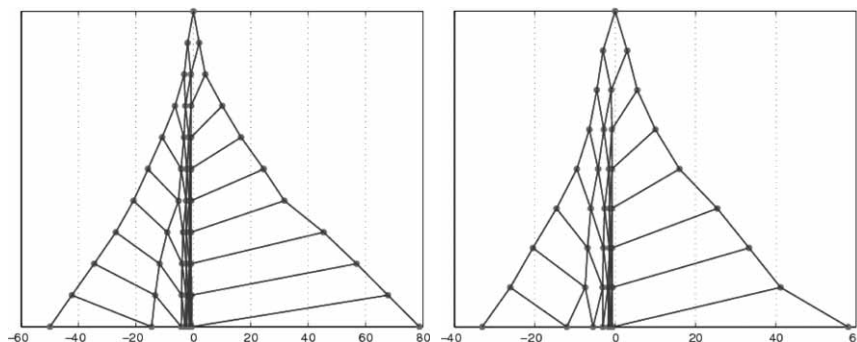
Primož Lukšič and Tomaž Pisanski

*Croat. Chem. Acta* 81 (2008) 247–252

CCA-3237

### Analysis of Tagged Sequences by Line Distance Matrices and Grid Paths

Agnes Pisanski-Peterlin  
and Tomaž Pisanski



*Croat. Chem. Acta* **81** (2008) 253–261

CCA-3238

### The Edge Version of the Szeged Index

Ivan Gutman and Ali Reza Ashrafi

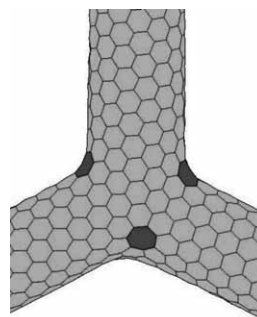
$$Sz_e(B) = \sum_C |C| m_1(C) \cdot m_2(C)$$

*Croat. Chem. Acta* **81** (2008) 263–266

CCA-3239

### Construction of Carbon Nanotube Junctions

István László

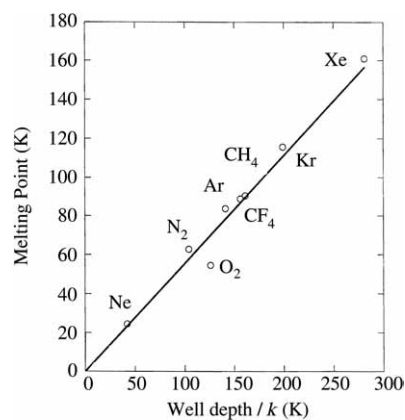


*Croat. Chem. Acta* **81** (2008) 267–272

CCA-3240

### The Melting Points of the Inert Gas Solids

Lawrence J. Dunne, John N. Murrell,  
and George Manos

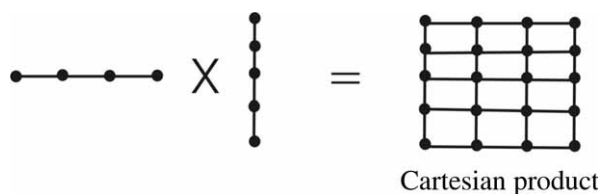


*Croat. Chem. Acta* **81** (2008) 273–275

CCA-3241

### The Edge Szeged Index of Product Graphs

Mohammad Hosein Khalifeh, Hasan Yousefi-Azari,  
Ali Reza Ashrafi, and Ivan Gutman

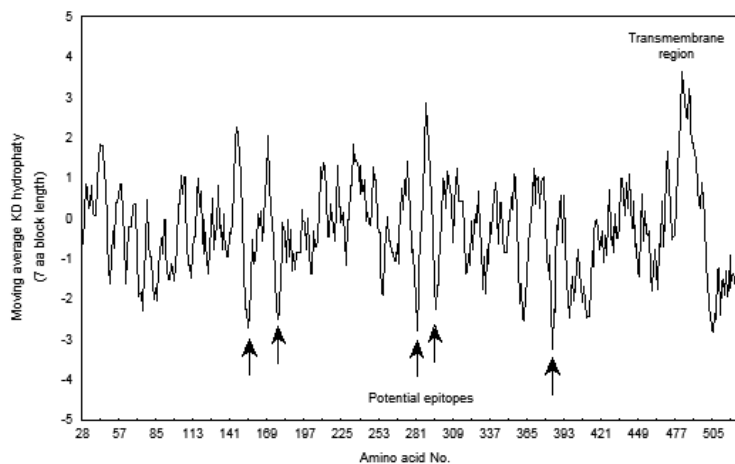


*Croat. Chem. Acta* **81** (2008) 277–281

CCA-3242

### Modelling of ICAM-1 and LFA-1 Interaction Using Molecular Recognition Theory

Nikola Štambuk, Paško Konjevoda, Dražen Vikić-Topić, and Biserka Pokrić

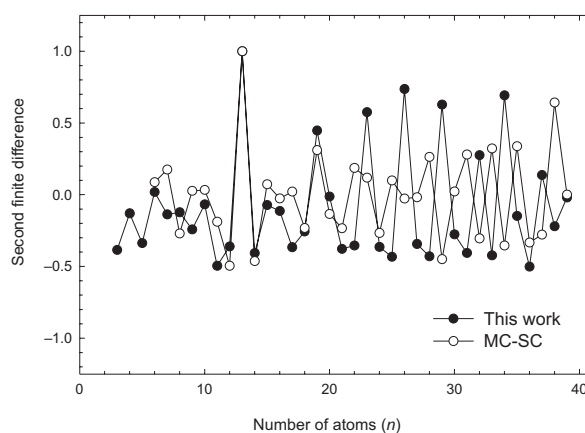


*Croat. Chem. Acta* **81** (2008) 283–287

CCA-3243

### Molecular Dynamics Study of Palladium Clusters: Size Dependent Analysis of Structural Stabilities and Energetics of $Pd_n$ ( $n \leq 40$ ) via a Lennard-Jones Type Potential

Mustafa Büyükata and Jadson C. Belchior

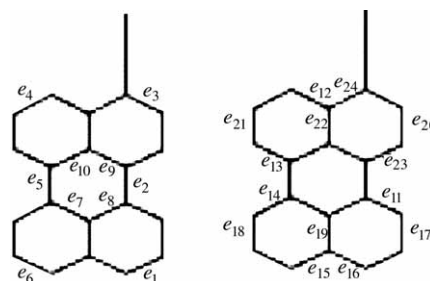


*Croat. Chem. Acta* **81** (2008) 289–297

CCA-3244

### Computing the Szeged Index of Two Type Dendrimer Nanostars

Ali Iranmanesh and Nabi Allah Gholami

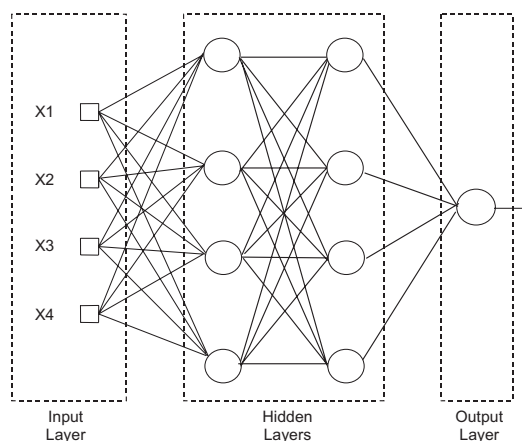


*Croat. Chem. Acta* **81** (2008) 299–303

CCA-3245

### Determination of Chemisorption Probabilities of Hydrogen Molecules on a Nickel Surface by Artificial Neural Network

Mustafa Büyükata, Yücel Koçyiğit, and Ziya B. Güvenç



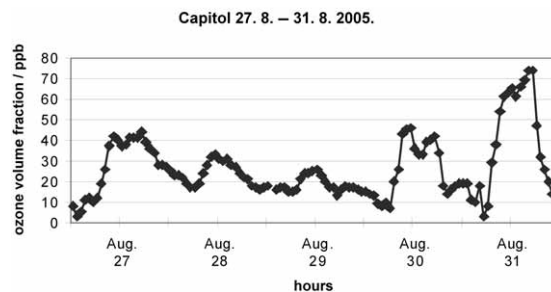
*Croat. Chem. Acta* **81** (2008) 305–310

CCA-3246

### Trends, Distribution and Frequency Analysis of Ozone Data from Three Monitoring Stations in Baton Rouge, Louisiana for the Years 1995 to 2005

Leo Klasinc, Nenad Kezele, Matevz Pompe, and Sean P. McGlynn

*Croat. Chem. Acta* **81** (2008) 311–318



CCA-3247

### Bounds on the Balaban Index

Bo Zhou and Nenad Trinajstić

*Croat. Chem. Acta* **81** (2008) 319–323

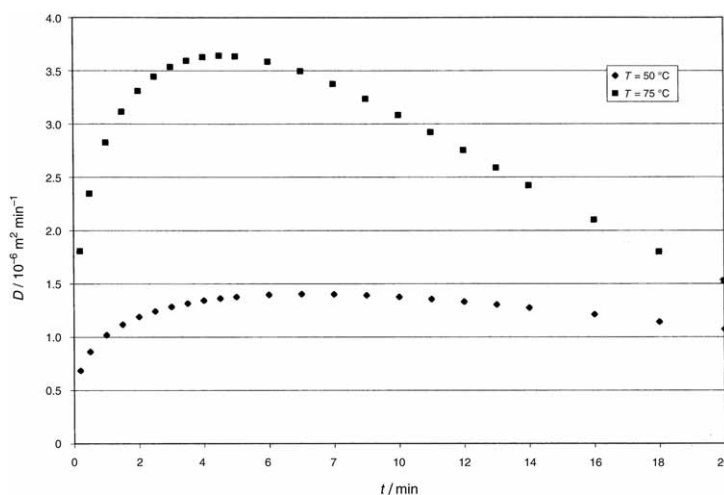
$$J = J(G) = \frac{m}{\mu + 1} \sum_{uv \in E(G)} (D_u D_v)^{-1/2}$$

CCA-3248

### Dehydration of Celery by Infrared Drying

Damir Ježek, Branko Tripalo, Mladen Brnčić, Damir Karlović, Suzana Rimac Brnčić, Dražen Vikić-Topić, and Sven Karlović

*Croat. Chem. Acta* **81** (2008) 325–331

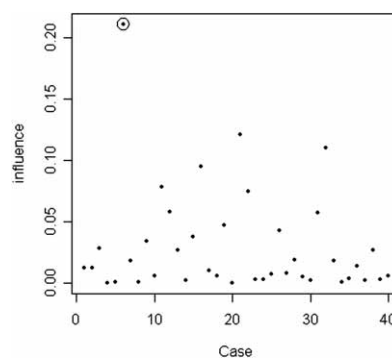


CCA-3249

### Quantitative Structure-activity Relationship Modeling of Mosquito Repellents Using Calculated Descriptors

Ramanathan Natarajan, Subhash C. Basak, Denise Mills, Jessica J. Kraker, and Douglas M. Hawkins

*Croat. Chem. Acta* **81** (2008) 333–340

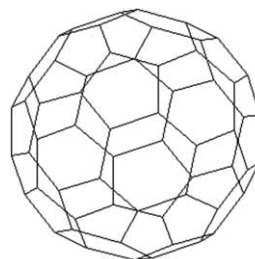


CCA-3250

### Generation of the Figures of Some Fullerenes by Using L-Systems

Mehdi Vahidipour, Hosein Sabaghian-Bidgoli, and Gholamreza Vakili-Nezhaad

*Croat. Chem. Acta* **81** (2008) 341–345



Axiom: A  
 Rule: A  $\rightarrow$  & (31.7175) |  $\wedge$  (31.7175) F |  
 + (-126) F | + (54)  $\wedge$  (31.7175) FA |  
 + (-72) F | + (54)  $\wedge$  (31.7175) FA |  
 + (-72) F | + (54)  $\wedge$  (31.7175) FA |  
 + (-72) F | + (54)  $\wedge$  (31.7175) FA |  
 + (-72) F

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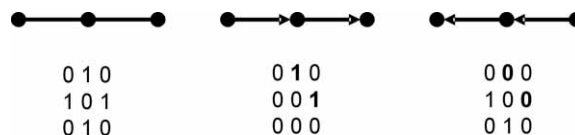
**CONFERENCE PAPERS**


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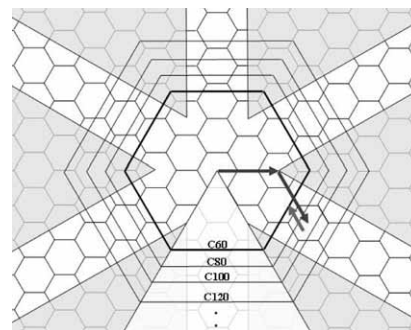
CCA-3251

**An Algorithm to Enumerate a Special Class of Digraphs:  
Application to Water Clusters**

Damir Vukičević and Ante Graovac

*Croat. Chem. Acta* **81** (2008) 347–350

CCA-3252

**Prediction of the Number of Carbon Atoms in Various  
Nanostructures by Using Geometrical Approach**
Hosein Sabaghian-Bidgoli, Gholamreza Vakili-Nezhaad,  
and Mehdi Vahidipour*Croat. Chem. Acta* **81** (2008) 351–361


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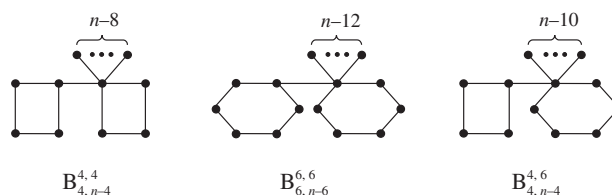
**NOTE**


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CCA-3253

**Minimal Spectrum-Sums of Bipartite Graphs  
with Exactly Two Vertex-Disjoint Cycles**

Fuyi Wei, Bo Zhou, and Nenad Trinajstić

*Croat. Chem. Acta* **81** (2008) 363–367


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**16<sup>th</sup> CROATIAN-SLOVENIAN CRYSTALLOGRAPHIC MEETING**

Petrčane

June 13–16, 2007

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**FOREWORD**

Stanko Popović

*Croat. Chem. Acta* **81** (2008) XXVII–XXVIII

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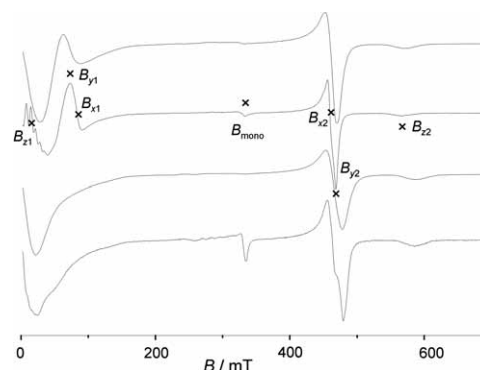
**CONFERENCE PAPERS**


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CCA-3254

**Structural Analysis of a Series of Copper(II)  
Coordination Compounds and Correlation  
with their Magnetic Properties**

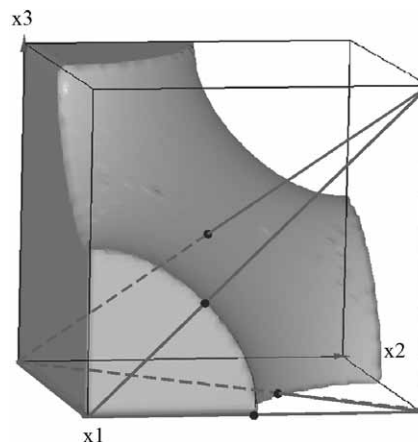
Bojan Kozlevčar and Primož Šegedin

*Croat. Chem. Acta* **81** (2008) 369–379

CCA-3255

### A Concept for Crystal Structure Determination without FOURIER Inversion: Some Steps towards Application

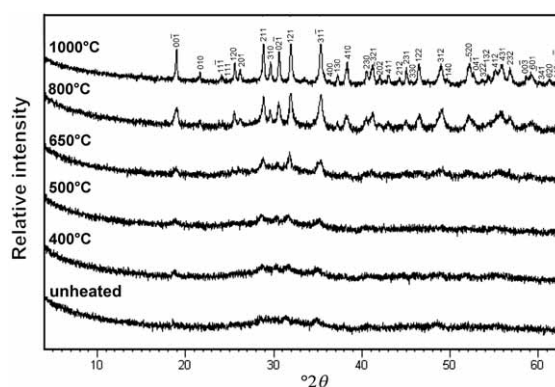
Karl F. Fischer, Armin Kirfel, and Helmuth Zimmermann

*Croat. Chem. Acta* **81** (2008) 381–389

CCA-3256

### Metamict Minerals: an Insight into a Relic Crystal Structure Using XRD, Raman Spectroscopy, SAED and HRTEM

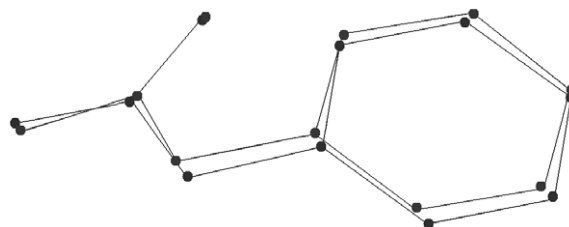
Nenad Tomašić, Vladimir Bermanec, Andreja Gajović, and Maša Rajić Linarić

*Croat. Chem. Acta* **81** (2008) 391–400

CCA-3257

### New Features in EXPO2007, a Program for Crystal Structure Resolution from Powder Data

Angela Altomare, Corrado Cuocci, Carmelo Giacovazzo, Anna Moliterni, and Rosanna Rizzi

*Croat. Chem. Acta* **81** (2008) 401–407

## APPENDIX

### BOOK REVIEWS

Nenad Raos

A25

Nenad Trinajstić

A27–A28

### ANNOUNCEMENTS AND ADVERTISEMENTS

A29–A32