

INTRODUCTION

PREFACE

Mira Ristić
Stjepko Krehula

Croat. Chem. Acta 2015, 88(4), 319

SVETOZAR MUSIĆ – *Curriculum Vitae*

Mira Ristić
Stjepko Krehula

Croat. Chem. Acta 2015, 88(4), 321–323

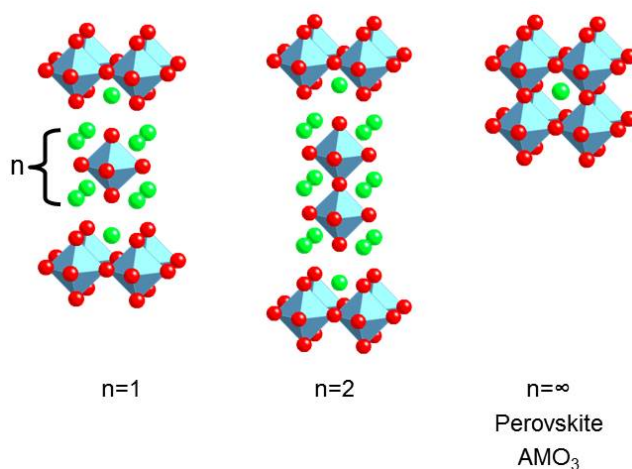
SVETOZAR MUSIĆ – *List of Publications*

Croat. Chem. Acta 2015, 88(4), 325–338

FEATURE ARTICLE

Perovskite-Related Oxide Fluorides: The Use of Mössbauer Spectroscopy in the Investigation of Magnetic Properties

Frank J. Berry, Colin Greaves, Nicola N. M.
Gurusinghe, Cathryn Hancock, Peter Slater,
Michael F. Thomas, Jose F. Marco



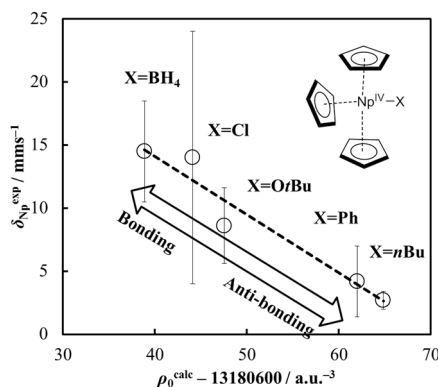
Croat. Chem. Acta 2015, 88(4), 339–346
DOI: 10.5562/cca2695

ORIGINAL SCIENTIFIC ARTICLES

Computational Study on Mössbauer Isomer Shifts of Some Organic-neptunium (IV) Complexes

Masashi Kaneko, Sunao Miyashita, Satoru Nakashima

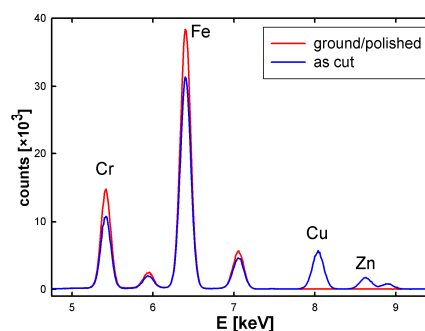
Croat. Chem. Acta **2015**, *88*(4), 347–353
DOI: 10.5562/cca2746



Structural Characterization of Highly Corrosion-resistant Steel

Adriana Lančok, Tomáš Kmječ, Milan Štefánik, Lubomír Sklenka, Marcel Miglierini

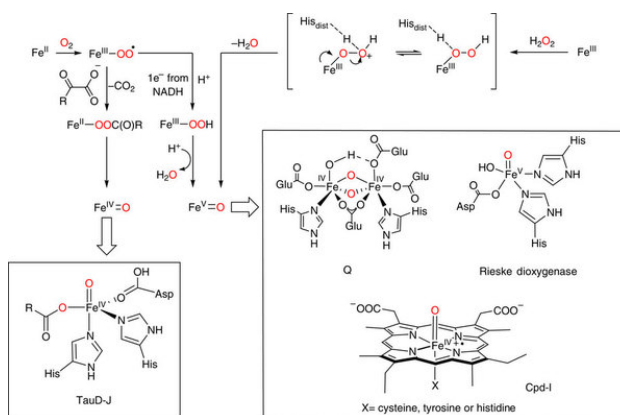
Croat. Chem. Acta **2015**, *88*(4), 355–361
DOI: 10.5562/cca2794



Ferryl and Ferrate Species: Mössbauer Spectroscopy Investigation

Virender K. Sharma, Radek Zboril

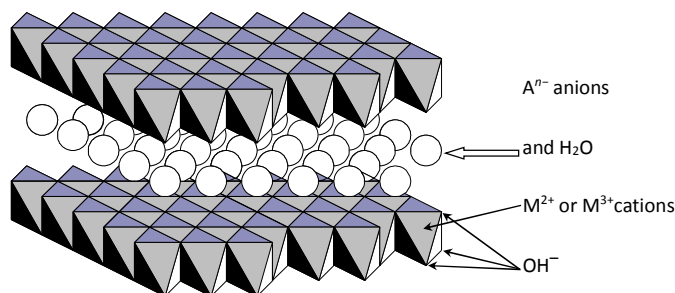
Croat. Chem. Acta **2015**, *88*(4), 363–368
DOI: 10.5562/cca2686



Mössbauer, XRD and TEM Study on the Intercalation and the Release of Drugs in/from Layered Double Hydroxides

E. Kuzmann, V. K. Garg, A. C. de Oliveira, L. Herojit Singh, S. S. Pati, E. M. Guimaraes, Tatiane O. dos Santos, M. Ádok-Sipiczki, P. Sipos, I. Pálinkó

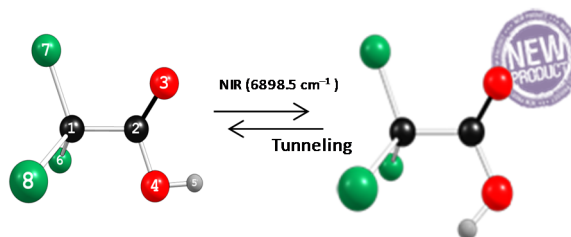
Croat. Chem. Acta **2015**, *88*(4), 369–376
DOI: 10.5562/cca2683



Narrowband NIR-Induced *In Situ* Generation of the High-Energy *Trans* Conformer of Trichloroacetic Acid Isolated in Solid Nitrogen and its Spontaneous Decay by Tunneling to the Low-Energy *Cis* Conformer

R. F. G. Apóstolo, R. R. F. Bento, R. Fausto

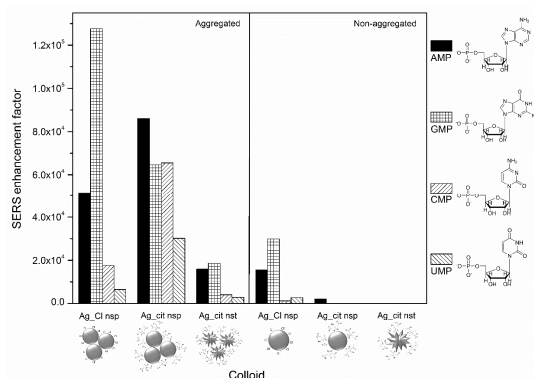
Croat. Chem. Acta **2015**, *88*(4), 377–386
DOI: 10.5562/cca2704



Surface-enhanced Raman Scattering Enhancement Factors for RNA Mononucleotides on Silver Nanoparticles

Snežana Miljanić, Marina Ratkaj, Igor Avdejev, Karlo Meglič, Adriana Kendel

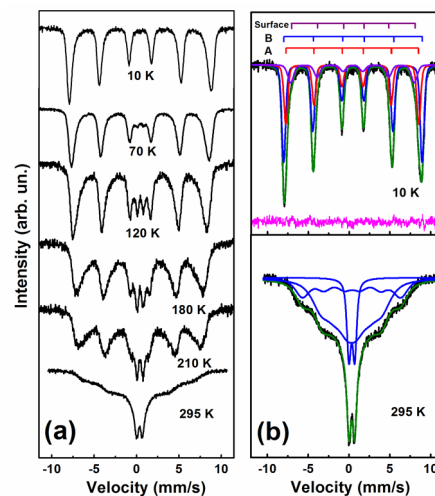
Croat. Chem. Acta **2015**, *88*(4), 387–396
DOI: 10.5562/cca2720



Structural and Magnetic Properties of Iron Oxide Nanoparticles in Shells of Hollow Microcapsules Designed for Biomedical Applications

I. S. Lyubutin, S. S. Starchikov, Chun-Rong Lin, N. E. Gervits, N. Yu. Korotkov, T. V. Bukreeva

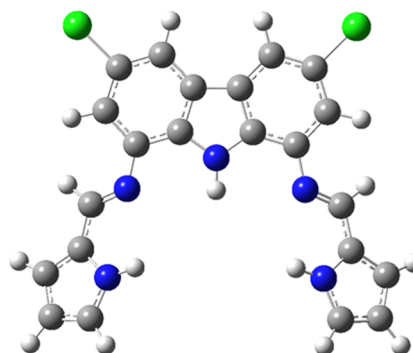
Croat. Chem. Acta **2015**, *88*(4), 397–403
DOI: 10.5562/cca2739



Synthesis and Anion Binding Properties of a Novel 1,8-dipyrrrolecarbazole Schiff-base

Marina Šekutor, Saša Opačak, Marija Alešković, Kata Mlinarić-Majerski

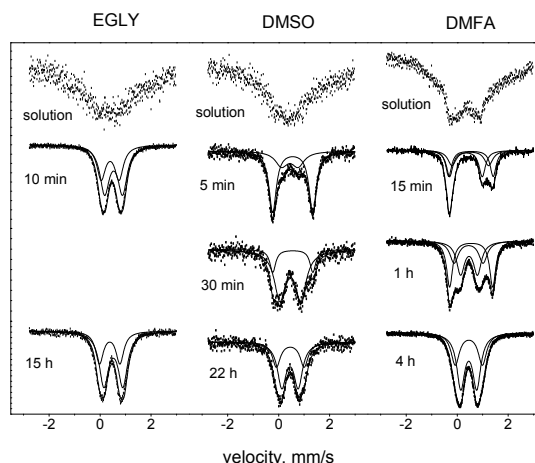
Croat. Chem. Acta **2015**, *88*(4), 405–411
DOI: 10.5562/cca2765



Iron Oxyhydroxide Aerogels and Xerogels by Hydrolysis of $\text{FeCl}_3 \cdot 6 \text{H}_2\text{O}$ in Organic Media: Early Stages

Károly Lázár, István Lázár, György Sáfrán, Anett Szilágyi

Croat. Chem. Acta **2015**, *88*(4), 413–419
DOI: 10.5562/cca2749



Investigations of Ancient Terra-cotta Sarcophagi, Excavated in Enez (Ainos) Turkey, by Instrumental Neutron Activation Analysis

Sevim Akyuz, Tanil Akyuz, Nuranya M. Mukhamedshina, Kubilay Balci, A. Adiba Mirsagatova, Gulnur Kurap, Sait Basaran

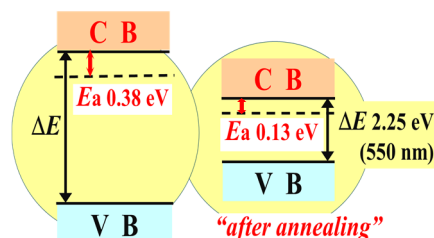
Croat. Chem. Acta **2015**, *88*(4), 421–425
DOI: 10.5562/cca2747



Characterization and Conduction Mechanism of Highly Conductive Vanadate Glass

Tetsuaki Nishida, Shiro Kubuki, Koken Matsuda, Yuki Otsuka

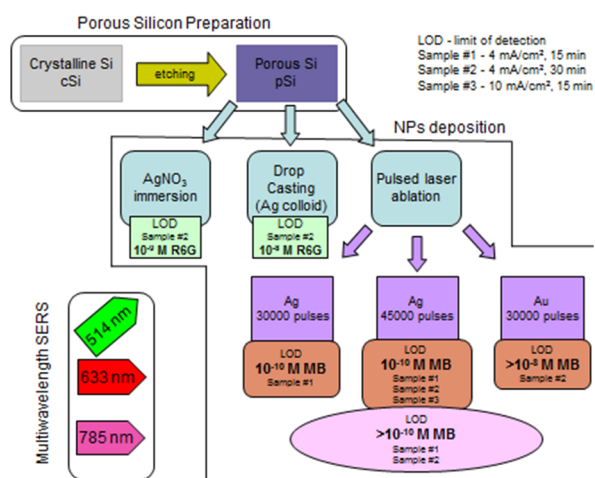
Croat. Chem. Acta **2015**, *88*(4), 427–435
DOI: 10.5562/cca2760



Metal Nanoparticles Deposited on Porous Silicon Templates as Novel Substrates for SERS

Lara Mikac, Mile Ivanda, Marijan Gotić, Aleksandar Maksimović, Sebastiano Trusso, Cristiano D’Andrea, Antonino Foti, Alessia Irrera, Barbara Fazio, Pietro Giuseppe Gucciardi

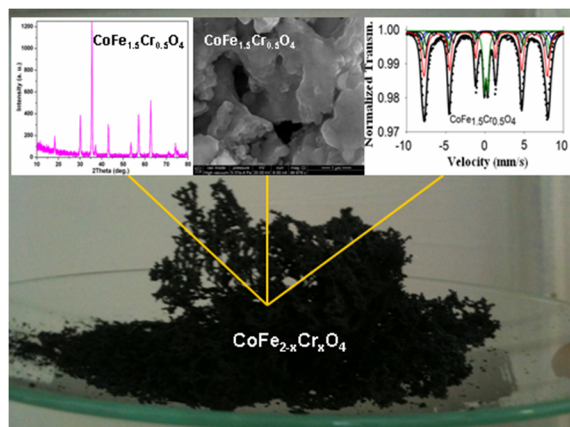
Croat. Chem. Acta **2015**, *88*(4), 437–444
DOI: 10.5562/cca2769



Chromium Substituted Cobalt Ferrites by Glycine-Nitrates Process

Dana Gingasu, Lucian Diamandescu, Ioana Mindru, Gabriela Marinescu, Daniela C. Culita, Jose Maria Calderon-Moreno, Silviu Preda, Cristina Bartha, Luminita Patron

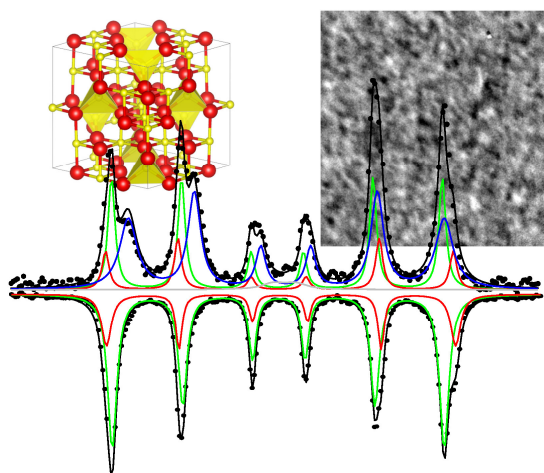
Croat. Chem. Acta **2015**, *88*(4), 445–451
DOI: 10.5562/cca2743



Mössbauer and Magnetic Properties of Coherently Mixed Magnetite-Cobalt Ferrite Grown by Infrared Pulsed-Laser Deposition

Juan de la Figuera, Adrián Quesada, Laura Martín-García, Mikel Sanz, Mohamed Oujja, Marta Castillejo, Arantzazu Mascaraque, Alpha T. N'Diaye, Michael Foerster, Lucía Aballe, José F. Marco

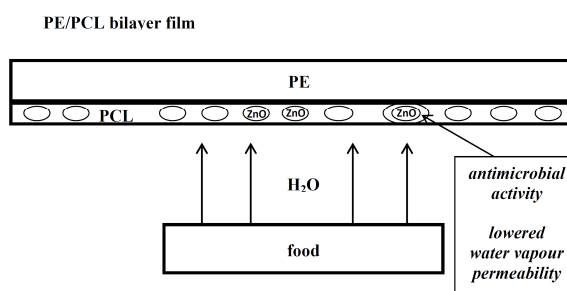
Croat. Chem. Acta **2015**, *88*(4), 453–460
DOI: 10.5562/cca2752



Active Bilayer PE/PCL Films for Food Packaging Modified with Zinc Oxide and Casein

Ana Rešček, Ljerka Kratožil Krehula, Zvonimir Katančić, Zlata Hrnjak-Murčić

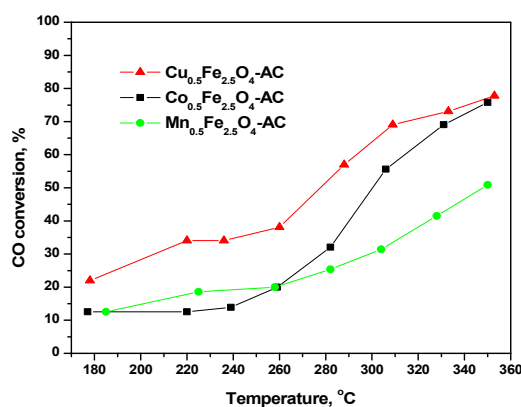
Croat. Chem. Acta **2015**, *88*(4), 461–473
DOI: 10.5562/cca2768



Synthesis of Improved Catalytic Materials for High-Temperature Water-gas Shift Reaction

Zara P. Cherkezova-Zheleva, Katerina L. Zaharieva, Ivan B. Ivanov, Vasko D. Idakiev, Ivan G. Mitov

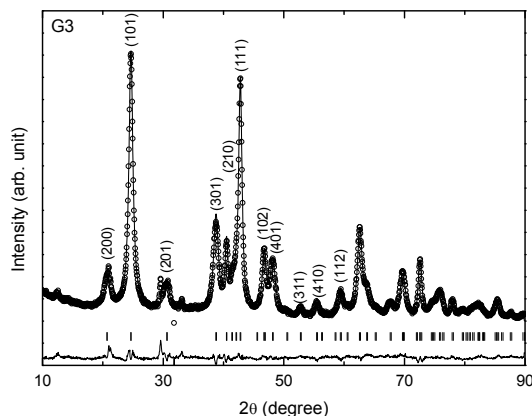
Croat. Chem. Acta **2015**, *88*(4), 475–480
DOI: 10.5562/cca2789



Anomalous Particle Size Dependence of Magnetic Relaxation Phenomena in Goethite Nanoparticles

Cathrine Frandsen, Daniel Esmarch Madsen, Chris B. Boothroyd, Steen Mørup

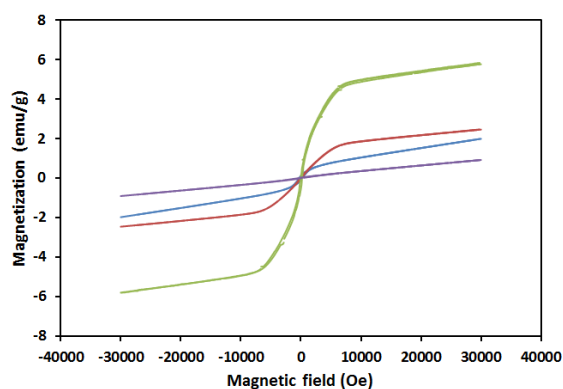
Croat. Chem. Acta **2015**, *88*(4), 481–485
DOI: 10.5562/cca2753



Characterization of Magnesium Doped Lithium Iron Silicate

Juan A. Jaén, Josefina Iglesias, Alcides Muñoz, Jesús A. Tabares, Germán A. Pérez Alcázar

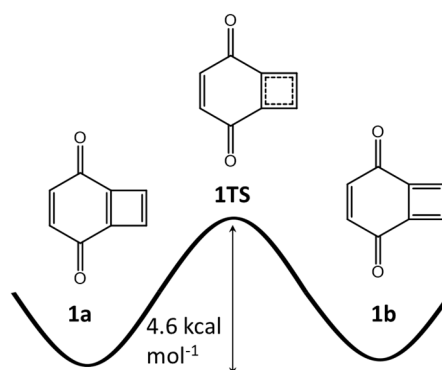
Croat. Chem. Acta **2015**, *88*(4), 487–493
DOI: 10.5562/cca2764



Multireference Configuration Interaction Methods – An Application to the Valence Isomerism in Cyclobutadieno-*p*-benzoquinone and its Diprotonated Form

Mario Vazdar, Mirjana Eckert-Maksić

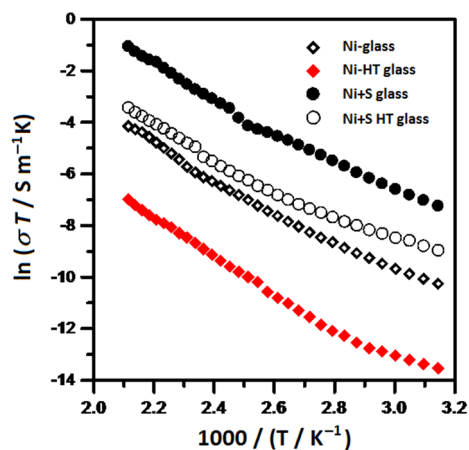
Croat. Chem. Acta **2015**, *88*(4), 495–503
DOI: 10.5562/cca2770



Role of Sulfur as a Reducing Agent for the Transition Metals Incorporated into Lithium Silicate Glass

M. Y. Hassaan, M. M. El-Desoky, M. G. Moustafa, Y. Iida, S. Kubuki, T. Nishida

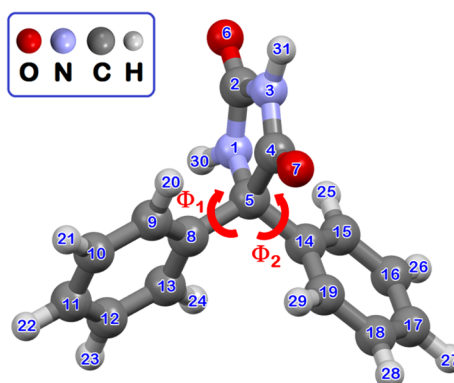
Croat. Chem. Acta **2015**, *88*(4), 505–510
DOI: 10.5562/cca2785



Molecular Structure of Phenytoin: NMR, UV-Vis and Quantum Chemical Calculations

Raluca Luchian, Emil Vințeler, Cosmina Chiș, Mihai Vasilescu, Nicolae Leopold, Vasile Chiș

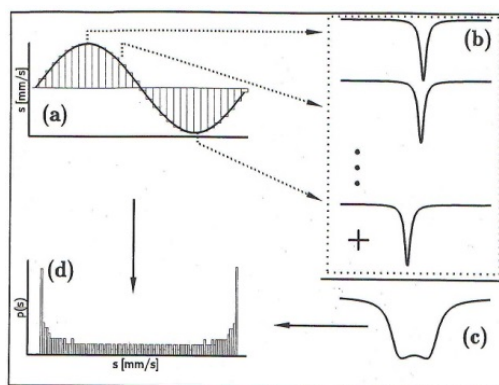
Croat. Chem. Acta **2015**, *88*(4), 511–522
DOI: 10.5562/cca2767



Application of the Mössbauer Spectroscopy to Study Harmonically Modulated Electronic Structures: Case Study of Charge- and Spin-Density Waves in Cr and Its Alloys

Stanislaw Mieczyslaw Dubiel

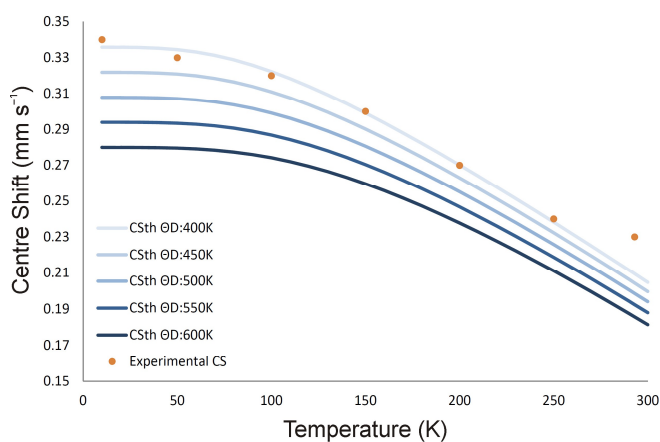
Croat. Chem. Acta **2015**, *88*(4), 523–530
DOI: 10.5562/cca2766



Variable Temperature ⁵⁷Fe-Mössbauer Spectroscopy Study of Nanoparticle Iron Carbides

Alex Scrimshire, Alex L. Lobera, Roman Kultyshev, Peter Ellis, Susan D. Forder, Paul A. Bingham

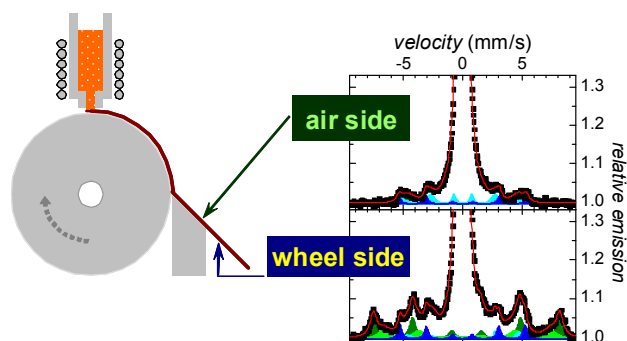
Croat. Chem. Acta **2015**, *88*(4), 531–537
DOI: 10.5562/cca2782



Surface Features of Nanocrystalline Alloys

Marcel Miglierini, Peter Matúš

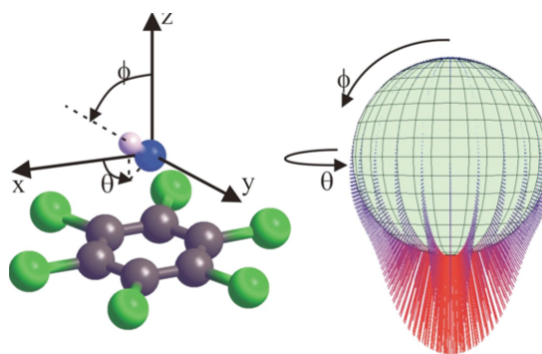
Croat. Chem. Acta **2015**, *88*(4), 539–545
DOI: 10.5562/cca2757



Tropospheric Degradation of Perfluorinated Aromatics: A Case of Hexafluorobenzene

Goran Kovačević, Aleksandar Sabljic

Croat. Chem. Acta **2015**, *88*(4), 547–552
DOI: 10.5562/cca2823

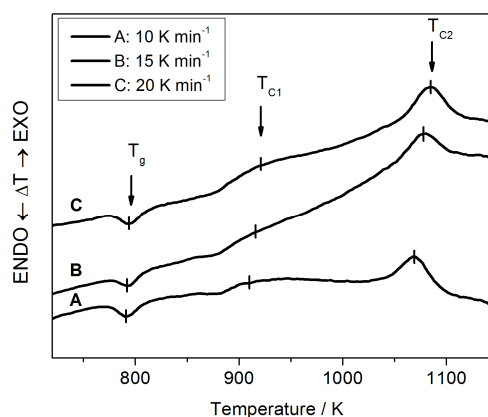


REVIEWS

Iron Phosphate Glass-ceramics

Andrea Moguš-Milanković, Ana Šantić, Luka Pavić, Kristina Sklepić

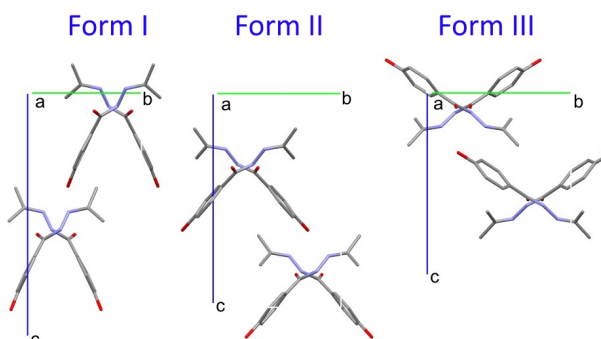
Croat. Chem. Acta **2015**, *88*(4), 553–560
DOI: 10.5562/cca2759



Contemporary Diffraction Methods in Study of Polycrystals

Stanko Popović, Antun Tonejc, Željko Skoko

Croat. Chem. Acta **2015**, *88*(4), 561–577
DOI: 10.5562/cca2748



Magnetic Properties and Oxygen Defects of Dilute Metal Doped Tin Oxide Based Semiconductor

Kiyoshi Nomura

Croat. Chem. Acta **2015**, *88*(4), 579–590
DOI: 10.5562/cca2784

