

Proceedings of the 6<sup>th</sup> Croatian-Slovenian-Serbian  
Symposium on Zeolites  
Proceedings of the 6<sup>th</sup> Slovenian-Serbian- Croatian  
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Proceedings of the 6<sup>th</sup> Serbian-Croatian-Slovenian  
Symposium on Zeolites

Publisher  
Croatian Zeolite Association (CROZA)

Editors  
Tatjana Antonić Jelić  
Josip Bronić

Print  
Ruđer Bošković Institute, Zagreb  
CROATIA

Copies  
60

CIP catalogue record for this book is available from National and University Library  
in Zagreb under number 000913897

**ISBN 978-953-55373-4-2**

Zagreb, 2015.

PROCEEDINGS OF THE  
6<sup>th</sup> CROATIAN-SLOVENIAN-SERBIAN  
SYMPOZIUM ON ZEOLITES

October 1-3, 2015.  
Šibenik, Croatia

Organizers  
CROATIAN ZEOLITE ASSOCIATION  
SLOVENIAN ZEOLITE ASSOCIATION  
SERBIAN ZEOLITE ASSOCIATION

Under the auspices of  
Federation of European Zeolite Associations (FEZA)

All articles in this Proceedings were reviewed.

Organizing committee:

Co-chair:

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Dr. Tatjana Antonić Jelić, Ruđer Bošković Institute, Zagreb, Croatia

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Dr. Sanja Slavica Matešić, Šibenik-Knin County, Šibenik, Croatia

Dr. Marin Ugrina, Faculty of Chemistry and Technology, Split, Croatia

Prof. dr. Nataša Zabukovec Logar, National Institute of Chemistry, Ljubljana, Slovenia

Scientific committee:

Dr. Josip Bronić, Ruđer Bošković Institute, Zagreb, Croatia

Prof. dr. Jasna Hrenović, Faculty of Science, Zagreb, Croatia

Prof. dr. Venčeslav Kaučič, National Institute of Chemistry, Ljubljana, Slovenia

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Prof. dr. Vesna Tomašić, Faculty of Chemical Engineering and Technology, Zagreb, Croatia

Prof. dr. Marina Trgo, Faculty of Chemistry and Technology, Split, Croatia

Prof. dr. Branka Vojnović, Faculty of Textile Technology, Zagreb, Croatia

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# PROGRAMME of the 6<sup>th</sup> Croatian–Slovenian-Serbian Symposium on Zeolites

## THURSDAY (1.10.2015.)

08:00 Registration

09:00 Opening ceremony

*Chair: Josip Bronić*

09:15 Plenary lecture

**Post-synthesis modification of zeolites by fluoride medium treatment**

Valentin Valtchev

10:00 Invited lecture

**In situ X-ray diffraction for the study of mechanochemical reactions and the discovery of new materials**

Ivan Halasz, Athanasios Katsenis, Andreas Puškarić, Krunoslav Užarević, Tomislav Friščić

10:30 Invited lecture

**Design of MOF heterostructures for expanding application opportunities**

Matjaž Mazaj, Sebastijan Kovačič, Nataša Zabukovec Logar

11:00 Coffee break

*Chair: Nevenka Rajić*

11:30 Section lecture

**Hierarchical FeZSM-5 zeolite for Fenton oxidative degradation of water pollutants**

Vladislav Rac, Dušan Stošić, Radmila Hercigonja, Vesna Rakić

11:45 Section lecture

**The arrangement of linkers in MOFs: a solid-state NMR view**

Andraž Krajnc, Tomaž Kos, Nataša Zabukovec Logar, Gregor Mali

12:00 Section lecture

**Synthesis of zinc glycy-L-phenylalaninate and its characterization**

Andreas Puškarić, Matija Gredičak, Josip Bronić

12:15 Section lecture

**The derived form of breakthrough curves for mathematical description of the column process**

Ivona Nuić, Jelena Perić, Marina Trgo, Nediljka Vukojević Medvidović

12:30 Section lecture

**A contribution to understanding the mechanism of zeolites crystallization**

Boris Subotić, Sanja Bosnar, Josip Bronić, Tatjana Antonić Jelić, Nan Ren

13:00 Lunch

*Chair: Nataša Zabukovec Logar*

15:30 Plenary lecture

**New finds for nanosized zeolites direct novel applications**

Svetlana Mintova

**16:15 Invited lecture**

**Postsynthetic creation of mesopores in MFI, FAU and BEA zeolites: influence on adsorptive and catalytic behavior**

Vladislav Rac, Vesna Rakić, Dušan Stošić, Ljiljana Damjanović, Aline Auroux

**16:45 Invited lecture**

**X-ray absorption spectroscopy of porous materials**

Mojca Rangus, Matjaž Mazaj, Nataša Novak Tušar, Nataša Zabukovec Logar

**17:15 Coffee break**

*Chair: Nataša Novak Tušar*

**17:30 Section lecture**

**The study of formation of chabazite zeolite using FAU-type crystals as starting material**

Ana Palčić, Maguy Jaber, Sandra Casale, Aurelie Vicente, Christian Fernandez, Guillaume Clet, Josip Bronić, Valentin Valtchev

**17:45 Section lecture**

**Point charge fitting in a triclinic lattice**

Jure Varlec

**18:00 Section lecture**

**Antibacterial activity of metal-loaded zeolites against Escherichia coli**

Jelena Milenković, Jasna Hrenović, Maja Vukašinović-Sekulić, Nevenka Rajić

**18:15 Section lecture**

**Organic-free colloidal titania as the impregnation media of mesoporous silica in indoor air-cleaning applications**

Andraž Šuligoj, Urška Lavrenčič Štangar, Alenka Ristić, Matjaž Mazaj, Dejan Verhovšek, Nataša Novak Tušar

**18:30 Section lecture**

**Sorption edge curves for Pb(II), Zn(II) and Cd(II) removal by natural and iron-modified zeolite**

Marin Ugrina, Nediljka Vukojević Medvidović, Ina Baletić, Jelena Perić, Ivona Nuić

**FRIDAY (2.10.2015.)**

*Chair: Aleksandra Daković*

**09:00 Plenary lecture**

**Geology of zeolites**

Vladimir Bermanec

**09:45 Invited lecture**

**Removal of lead ions from simulated and real pollutant solutions by using the natural and Fe(III)-modified zeolite**

Milan Kragović, Aleksandra Daković, Marija Marković, Mirjana Stojanović, Jelena Petrović, Vera Dondur, Aleksandar Jović

**10:15 Invited lecture**

**Positron annihilation lifetime spectroscopy (PALS) in structural investigations of zeolites – an overview of the experimental results**

Sanja Bosnar

**10:45 Coffee break**



**Chair: Marina Trgo**

**11:15 Invited lecture**

**A structure directing role of 3-(methylamino)propylamine in the crystallization of open-framework metallophosphates**

Sanja Jevtić, Nevenka Rajić

**11:45 Section lecture**

**Characterization of dynamic behaviour of Cd(II) and Zn(II) uptake from a binary solution onto the fixed zeolite bed**

Ivona Nuić, Kristina Sabljo, Marina Trgo, Nediljka Vukojević Medvidović, Marin Ugrina

**12:00 Section lecture**

**Adsorption of zearalenone on surface modified zeolites - clinoptilolite and phillipsite**

Marija Marković, Aleksandra Daković, George E. Rottinghaus, Milan Kragović, Mariano Mercurio, Bruno de Gennaro, Ljiljana Damjanović

**12:15 Section lecture**

**Phosphate adsorption from aqueous solution using iron-modified clinoptilolite**

Jelena Pavlović, Iva Kaplanec, Slavica Lazarević, Nevenka Rajić

**12:30 Section lecture**

**The influence of ionic interaction on removal of metal ions from a binary solution onto zeolites**

Marin Ugrina, Marija Sikavica, Nediljka Vukojević Medvidović, Marina Trgo, Sanja Slavica Matešić

**12:45 Section lecture**

**Microwave-assisted depolymerisation of biolignin in the presence of zeolite-based catalysts**

Jelena Milovanović, Antonio A. Romero, Rafael Luque, Nevenka Rajić

**13:00 Section lecture**

**Natural zeolite influence on the surface motility of acinetobacter baumannii**

Jasna Hrenović, Darko Tipljaš, Marin Ganjto, Goran Durn, Ivana Goić-Barišić

**13:30 Lunch time**

**16-20 Excursion to Etnoland, Pakovo Selo**

**SATURDAY, 3.10.2015.**

**09:00 Closing remarks**