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OBRAZOVANJE

2000. Doktor hemijskih nauka
Fakultet za naravoslovje in tehnologijo, Univerzitet u Ljubljani
Ljubljana, Slovenija
1986. Magistar tehničkih nauka, oblast Neorganska hemija, Tehnološko-metalurški fakultet, Univerzitet u Beogradu, Beograd, Srbija
1983. Diplomirani inženjer tehnologije, Tehnološko-metalurški fakultet, Univerzitet u Beogradu, Srbija

NASTAVNO / NAUČNO ZVANJE

2001. **Redovni profesor**
1996. **Vanredni profesor**
1991. **Docent**
1984. **Asistent**
2023. **Redovni profesor**
- Fakultet za ekologiju i zaštitu životne sredine
Univerzitet „Union – Nikola Tesla“
Beograd, Srbija

ISTRAŽIVAČKI PROJEKTI

Eureka project (E!4208): Natural zeolites in water quality system (2008-2011). Rukovodilac projekta sa srpske strane.

Bilateral (Croatia-Serbia) research project: Dual function of the natural clinoptilolite in waste water treatment: antibacterial activity and the support for biosorption (2011-2012). Rukovodilac projekta

Bilateral (Slovenia-Serbia) research project: Upotreba alternativnih jeftinih materijala za poboljšanje vode za piće (2012-2013). Rukovodilac projekta

Uklanjanje amonijaka iz podzemnih voda i omekšavanje sirove vode bogate magnezijumom pomoću prirodnog zeolita”, Inovacioni projekat (451-03-00605/2012-16/143). Rukovodilac projekta

The use of natural zeolite (clinoptilolite) for treatment of farm slurry and as a fertilizer carrier”, The Norwegian Programme in Higher Education, Research and Development in the Western Balkans 2011-2014. The Agriculture Sector (HERD/Agriculture). Rukovodilac sa Srpske strane

Horizon 2020: NOWELTIES "Joint PhD Laboratory for New Materials and Inventive Water Treatment Technologies. Harnessing resources effectively through innovation" (ID: 81288). (2019-2023). Učesnik i rukovodilac teme.

ČLANSTVA U STRUKOVNIM I AKADEMSKIM UDRUŽENJIMA

- | | |
|------|---|
| 1995 | Međunarodno zeolitsko udruženje (IZA) |
| 1995 | Evropsko zeolitsko udruženje (FEZA) |
| 2015 | Zeolitsko društvo Srbije (ZSD), Slovensko zeolitno društvo (SIZA) |

NAGRADE I STIPENDIJE

- | | |
|------------|---|
| 1988–1990. | Doktorska stipendija Ministarstva nauke R. Slovenije. |
| 2002. | Nagrada Ministarstva nauke i tehnologije Srbije za izuzetna ostvarenja u naučno-istraživačkom radu. |

ODABRANE PUBLIKACIJE

N. Rajic & V. Kaucic (2003) “Molecular sieves: Aluminophosphates”, Encyclopedia of catalysis, Vol.5, I.T. Horvath Ed., J. Wiley&Sons, Inc., Hoboken, pp. 189-236. ISBN: 9780471227618

N. Rajic, V. Kaucic, N. Zabukovec Logar (2011) “Molecular sieves: Aluminophosphates”, *Encyclopedia of catalysis*, Vol.6, I.T. Horvath Ed., 2nd ed., J. Wiley&Sons, Inc., Hoboken. ISBN: 9780471227618.

N. Rajic, M. Ceh, R. Gabrovsek, & V. Kaucic (2002). Formation of Nanocrystalline Transition-Metal Ferrites inside a Silica Matrix. *J. Am. Ceram. Soc.* 85, 1719-1724.

N. Rajic, D. Hanzel, N. Zabukovec Logar, D. Stojakovic, V. Kaucic (2002). Preparation and characterization of iron(III) phosphate-oxalate using 1,2-diaminopropane as the structure-directing agent”, *Micropor Mesopor Mat* 55, 313-319.

N. Rajic, N. Zabukovec Logar, G. Mali, V. Kaucic (2003). A new inorganic-organic hybrid: synthesis and structural characterization of an alumino(oxalato)phosphate. *Chemistry of Materials* 15, 1734-1738.

N. Novak Tutar, N. Zabukovec Logar, I. Arcon, F. Thibault-Starzyk, A. Ristic, N. Rajic, V. Kaucic (2003), “Manganese-Containing Silica-Based Microporous Molecular Sieve MnS-1 (2003) „Synthesis and Characterization. *Chem Mat* 15, 4745-4750.

N. Rajic, D. Stojakovic, S. Jevtic, N. Zabukovec Logar, J. Kovac, V. Kaucic (2009). Removal of aqueous manganese using the natural zeolitic tuff from the Vranjska Banja deposit in Serbia. *J Hazardous Mat* 172, 1450-14

D. Stojakovic, J. Hrenovic, M. Mazaj, N. Rajic (2011). On the zinc sorption by the Serbian natural clinoptilolite and the disinfecting ability and phosphate affinity of the exhausted sorbent” *J Hazardous Mat* 185, 408-415.

M. Jovanovic, N. Rajic, B. Obradovic (2012). Novel kinetic model of the removal of divalent heavy metal ions from aqueous solutions by natural clinoptilolite. *J Hazardous Mat* 233, 57-64.

J. Milenkovic, J. Hrenovic, I. Goic-Barisic, M. Tomic, J. Djonlagic, N. Rajic (2014). Synergistic anti-biofouling effect of Ag-exchanged zeolite and D-Tyrosine on PVC composite against the clinical isolate of *Acinetobacter baumannii*. *Biofouling* 30, 965-973.

S. Jevtic, I. Arcon, A. Recnik, B. Babic, M. Mazaj, J. Pavlovic, D. Matijasevic, M. Niksic, N. Rajic (2014). The iron(III)-modified natural zeolitic tuff as an adsorbent and carrier for selenium oxyanions“ *Micropor Mesopor Mat* 197, 92-100

J. Hrenovic Jasna, J. Milenkovic, N. Daneu, R. Kepcija Matonickin, N. Rajic (2012). Antimicrobial activity of metal oxide nanoparticles supported onto natural clinoptilolite. *Chemosphere* 88, 1103-1107.

S. Jevtic, S. Grujic, J. Hrenovic, N. Rajic (2012). Surfactant-modified clinoptilolite as a salicylate carrier, salicylate kinetic release and its antibacterial activity. *Micropor Mesopor Mat* 159, 30-35.

N. Rajic, N. Zabukovec-Loger, A. Recnik, M. El-Roz, F. Thibault-Starzyk, P. Spring, L. Hannevold, A. Andersen, M. Stocker (2013). Hardwood lignin pyrolysis in the presence of nano-oxide particles embedded onto natural clinoptilolite“*Micropor Mesopor Mat.* 176, 162-167.

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M. Jovanovic, I. Arcon, J. Kovac, N. Novak Tusan, B. Obradovic, N. Rajic (2016). Removal of manganese in batch and fluidized bed systems using beads of zeolite A as adsorbent. *Micropor Mesopor Mat*. 226, 378–385

J. Pavlovic, M. Popova, M Mihalyi, M. Mazaj, G. Mali, J. Kovač, H. Lazarova, N. Rajic (2019). Catalytic activity of SnO_2 - and SO_4/SnO_2 -containing clinoptilolite in the esterification of levulinic acid. *Micropor Mesopor Mat* 279, 10–18

J. Milovanovic, N. Rajić, A. A. Romero, H. Li, K. Shih, R. Tschentscher R, Luque (2016). Insights into the Microwave-Assisted Mild Deconstruction of Lignin Feedstocks Using NiO-Containing ZSM-5 Zeolites. *ACS Sustainable Chem Eng* 4, 4305-4313.

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B. Kalebic, N. Skoro, J. Kovac, N. Rajic (2022) „Regeneration of the ciprofloxacin-loaded clinoptilolite by non-thermal atmospheric plasma. *Appl Surf Sci*, 153379.

J. Pavlović, A. Šuligoj, M. Opresnik, N. Novak Tušar, N. Zabukovec Logar, N. Rajić (2022). Studies of Clinoptilolite-Rich Zeolitic Tuffs from Different Regions and Their Activity in Photodegradation of Methylene Blue. *Catalysts* 12, 224

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Druga štampana dela

I. Ćosić, P. Gabko, J. Hodolić, P. Bruner, M. Vjnović-Miloradov, D. Šebo, B. Kosec, I. Budak, I. Popović, L. Šoošr, N. Rajić, G. Vujić, A. Antić, M. Majernik, J. Muransky, M. Badida, Training of institutions in modern environmental approaches and technologies -TIMEA: Final report of the project. Faculty of Technical Sciences, Novi Sad, 2010.

NMBU scientific report No 1: The use of zeolite (clinoptilolite) for the treatment of farm slurry as a fertilizer carrier. Monograph based on results from the HERD program for the period 2012-2015 (ISBN: 978-82-575-1356-6).

N. Rajić, Neorganska hemija – praktikum, TMF, Beograd, 1996 (ISBN 86-7401-096-2).

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N. Rajić, Metal-modifikovana molekulska sita (monografija), TMF, Beograd, 2000. (ISBN 86-7401-145-4).

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