Ime i prezime: Igor A. Pašti

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KRATKI PREGLED KARIJERE

Igor Pašti je diplomirao 2007. a doktorirao 2009. godine na Univerzitetu u Beogradu – Fakultet za fizičku hemiju. Između 2007. i 2016. obavio je nekoliko akademskih posjeta institucijama kao što su Institute of Physical Chemistry (Heidelberg, Njemačka), KTH (Stockholm, Švedska) i BTU (Campus Senftenberg, Njemačka). Trenutno je vanredni profesor i prodekan za nauku i doktorske studije na Univerzitetu u Beogradu – Fakultetu za fizičku hemiju. Predaje Elektrohemiju (osnovne studije), Elektrodnu kinetiku (master i doktorske studije) i Nauku o materijalima (master studije). Fokus istraživačkog interesa mu je u domenu teoretskih i eksperimentalnih izučavanja elektrodnih materijala i površinskih procesa vezanih za primjene u sistemima za konverziju energije.

Dr. Pašti je objavio preko 70 radova u recenziranim naučnim časopisima i ima dva nacionalna patenta. Autor je jednog univerzitetskog udžbenika. Za naučna dostignuća nagrađen je nagradom Srpske akademije nauka i umjetnosti za 2012. godinu.

PROFESIONALNA KARIJERA

2016 –	Vanredni profesor, Univerzitet u Beogradu – Fakultet za fizičku hemiju
2011 – 2016	Docent, Univerzitet u Beogradu – Fakultet za fizičku hemiju
2008 – 2011	Asistent, Univerzitet u Beogradu – Fakultet za fizičku hemiju
2007 – 2008	Saradnik u nastavi, Univerzitet u Beogradu – Fakultet za fizičku hemiju

OBRAZOVANJE

2007 – 2009	Doktorske studije iz Fizičke hemije, Univerzitet u Beogradu – Fakultet za fizičku hemiju
2003 – 2007	Osnovne studije iz Fizičke hemije, Univerzitet u Beogradu – Fakultet za fizičku hemiju

UČEŠĆE U NACIONALNIM PROJEKTIMA

2011-	Projekat III45014 „Litijum-jonske baterije i gorivne ćelije: istraživanje i razvoj“, finansiran od strane Ministarstva prosvete, nauke i tehnološkog razvoja, (PI – Prof. Dr Slavko Mentus)
2008-2010	Projekat br. 142047 „Struktura, termodinamičke i elektrohemijske osobine modernih materijala za konverziju energije i nove tehnologije“ finansiran od strane Ministarstva prosvete, nauke i tehnološkog razvoja, (PI – Prof. Dr Slavko Mentus)

UČEŠĆE NA MEĐUNARODNIM PROJEKTIMA

2017 – 2018	Projekat multilateralne naucne i tehnoloske saradnje u dunavskom regionu u 2017-2018 "Conducting polymer composites" br. DS 2016-0027. (br. 337-00-00136/2016-09/41 at MPNTR);
2015 – 2018	NATO-Science for Peace and Security (SPS) Programme, Project G4925 - "DURAPEM - Novel Materials for Durable Proton Exchange Membrane Fuel Cells".
2014-2016	SCOPES (Scientific cooperation between Eastern Europe and Switzerland – project no. IZ73ZO_152457 “Conducting polymers synthesized by enzymatic polymerization”, financed by Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Co-operation (SDC).
2012-2015	FP7 JTI FCH-JU project “EURECA” (Efficient use of energy converting applications), project reference 303024 (PI for Serbia Dr Milica Marčeta Kaninski, INN Vinča)
2012-2015	“Catalysis by metal clusters supported by complex oxide systems” (collaborative grant), financed by Swedish Research Council, (PI: Natalia Skorodumova, KTH Stockholm, Sweden)
1.10.2013. - 30.09.2014.	Danube States R&D network project: "New materials and devices based on conducting polymers and their composites", financed by the German Federal Ministry of Education and Research.
2010 -2011	Bilateral project "Distribude simulation of biomolecules dynamics on computer grid" University of Belgrade – Faculty of Physical Chemistry (Belgrade, Serbia) and Insititute Ruđer Bošković (Zagred, Croatia).
2007-2008	“Agreement on Research Cooperation on the Electode Materials for Lithium Polymer Batteries” (Varta Microbattery GmbH / University of Belgrade - Faculty of Physical Chemistry)

NENAUČNI PROJEKTI

2015	“Nauka oko nas” (projekat promocije nauke, finansiran od strane Centra za promociju nauke), rukovodilac
2016	“Naučna kombinacija” (projekat promocije nauke, finansiran od strane Centra za promociju nauke)

RECENZENT RADOVA U NAUČNIM ČASOPISIMA

ACS Applied Materials & Interfaces, Journal of Physical Chemistry, Electrochimica Acta, Computational Material Science, Chemical Physics, Physical Chemistry Chemical Physics, RSC Advances, Catalysis Science & Technology, Environmental Science: Nano; Fullerenes, Nanotubes and Carbon Nanostructures; International Journal of Hydrogen Energy, Journal of

Alloys and Compounds, Ionics, Match, Materials Science in Semiconductor Processing, Analytical Letters, Journal of Computational Science, Chemistry of Materials, Journal of Electroanalytical Chemistry, Chemistry of Materials, Journal of Nanostructure in Chemistry, Journal of Serbian Chemical Society, Hemijska Industrija

ČLANSTVA U KONFERENCIJSKIM ODBORIMA

- 12th International Conference on Fundamental and Applied Aspects of Physical Chemistry "PHYSICAL CHEMISTRY 2014", September 22–26, Belgrade
- 1st Workshop on Materials Science for Energy Related Applications, Belgrade, September 26-27, 2014.
- 2nd International Meeting on Materials Science for Energy Related Applications, Belgrade, September 29-30, 2016.

MENTORSTVA DOKTORSKIH DISERTACIJA

Odbranjene teze:

1. Dragana D. Vasić-Anićijević "Theoretical analysis of tungsten carbide properties as an electrocatalyst support for hydrogen electrode reactions"

2. Igor V. Milanović, "Synthesis and characterization of complex and metal hydrides for hydrogen energy applications"

3. Nemanja M. Gavrilov, "Application of carbonized nanostructured polyaniline in electrocatalysis and electrical energy storage"

4. Vladimir Nikolić, "Influence of the tungsten carbide and carbon anode catalyst supports on PEM fuel cell performance"

5. Vladimir E. Tanasković, "Investigation of oxygen reduction on polycrystalline platinum electrode in liquid water-aprotic solvent systems"

6. Sanjin Gutić, "Application of graphene-based materials in electrocatalysis and energy storage"

Trenutno vodi izradu tri doktorske disertacije.

KNJIGE I POGLAVLJA

1. Ristić, M., Pašti, I., Cekić-Lasković, I., Praktikum iz Opšteg kursa fizičke hemije, Univerzitet u Beogradu, Fakultet za fizičku hemiju, 2010, ISBN: 978-86-82139-32-4; drugo izdanje 2013, ISBN: 978-86-82139-32-4. (university textbook in Serbian).

2. Pašti, I.A., Gavrilov, N.M., Mentus, S.V., Voltammetric Techniques in Electrocatalytic Studies, in Voltammetry: Theory, Types and Applications, Yuki Saito and Takumi Kikuchi (Eds.), Series: Chemical Engineering Methods and Technology, ISBN: 978-1-62948-057-2, Nova Science Publishers, 2013.

UREDNIK ČASOPISA, ZBORNIKA I KNJIGA

1. Editor of Book of Abstract "1st Workshop on Materials Science for Energy Related Applications" Belgrade, September 26-27, 2014, ISBN: 978-86-82139-49-2.

2. Editor of Book of Abstract "2nd International Meeting on Materials Science for Energy Related Applications" Belgrade, September 29-30, 2014, ISBN 978-86-82139-62-1.

LISTA OBJAVLJENIH RADOVA (Poredano po datumu, od najnovijeg)

Radovi u naučnim časopisima

1. Gutić, S., Dobrota, A., Leetmaa, M., Skorodumova, N.V., Mentus, S.V., Pasti, I.A., Improved catalyst for hydrogen evolution reaction in alkaline solutions through the electrochemical formation of nickel-reduced graphene oxide interface, (2017) Physical Chemistry Chemical Physics, 2017, DOI: 10.1039/C7CP01237C

2. Luginbühl, S., Milojević-Rakić, M., Junker, K., Bajuk-Bogdanović, D., Pašti, I., Kissner, R., Ćirić-Marjanović, G., Walde, P., The influence of anionic vesicles on the oligomerization of p-aminodiphenylamine catalyzed by horseradish peroxidase and hydrogen peroxide, (2016) Synthetic Metals, 226, pp- 89-103., DOI:10.1016/j.synthmet.2017.01.011

3. Dobrota, A.S., Pašti, I.A., Mentus, S.V., Skorodumova, N.V., DFT study of the interplay between dopants and oxygen functional groups over graphene basal plane - implications in energy-related applications (2017) Physical Chemistry Chemical Physics, 19(12), pp. 8530-8540, DOI:10.1039/C7CP00344G

4. Dobrota, A., Pašti, I., A Review of Theoretical Studies on Functionalized Graphene for Electrochemical Energy Conversion and Storage Applications. (2017) Current Physical Chemistry; 7., DOI:10.2174/1877946807666170102155447

5. Janoševic Ležaić, A., Luginbühl, S., Bajuk-Bogdanović, D., Pašti, I., Kissner, R., Rakvin, B., Walde, P., Ćirić-Marjanović, G., Insight into the template effect of vesicles on the laccase-catalyzed oligomerization of N-phenyl-1,4-phenylenediamine from Raman spectroscopy and cyclic voltammetry measurements, (2016) Scientific Reports, 6, 30724., DOI:10.1038/srep30724

6. Gutić, S., Dobrota, A.S., Gavrilov, N., Baljozović, M., Pašti, I.A., Mentus, S.V., Surface Charge Storage Properties of Selected Graphene Samples in pH-neutral Aqueous Solutions of Alkali Metal Chlorides - Particularities and Universalities, (2016) International journal of electrochemical science, 11(10), pp. 8662-8682., DOI:10.20964/2016.10.47

7. Pašti, I.A., Janosevic Lezaic, A., Ćirić-Marjanović, G., Mirsky, V.M., Resistive gas sensors based on the composites of nanostructured carbonized polyaniline and Nafion, (2016) Journal of Solid State Electrochemistry, 20(11)., pp. 3061, DOI:10.1007/s10008-016-3344-y

8. Lazarevic-Pasti, T., Pasti, I.A., Jokic, B., Babic, B., Vasic, V., Heteroatom-doped mesoporous carbons as efficient adsorbents for removal of dimethoate and omethoate from water, (2016) RSC Advances, 6(67)., pp. 62128-62139, DOI:10.1039/C6RA06736K

9. Dobrota, A., Gutić, S., Kalijadis, A., Baljozovic, M., Mentus, S.V., Skorodumova, N.V., Pašti, I.A., Stabilization of alkali metal ions interaction with OH-functionalized graphene: Via clustering of OH groups-implications in charge storage applications. (2016) RSC Advances, 6(63), pp. 57910 - 57919., DOI:10.1039/C6RA13509A

10. Pašti, I.A., Marković, A., Gavrilov, N., Mentus, S.V. Adsorption of Acetonitrile on Platinum and its Effects on Oxygen Reduction Reaction in Acidic Aqueous Solutions—Combined Theoretical and Experimental Study, (2016) Electrocatalysis, 7 (3), pp. 235-248. DOI: 10.1007/s12678-016-0301-6

11. Pašti, I.A., Leetmaa, M., Skorodumova, N.V. General principles for designing supported catalysts for hydrogen evolution reaction based on conceptual Kinetic Monte Carlo modeling, (2016) International Journal of Hydrogen Energy, 41 (4), pp. 2526-2538. DOI: 10.1016/j.ijhydene.2015.12.026

12. Dobrota, A.S., Pašti, I.A., Mentus, S.V., Skorodumova, N.V. A general view on the reactivity of the oxygen-functionalized graphene basal plane, (2016) Physical Chemistry Chemical Physics, 18 (9), pp. 6580-6586. DOI: 10.1039/c5cp07612a

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15. Pašti, I.A., Gavrilov, N.M., Dobrota, A.S., Momčilović, M., Stojmenović, M., Topalov, A., Stanković, D.M., Babić, B., Ćirić-Marjanović, G., Mentus, S.V. The Effects of a Low-Level Boron, Phosphorus, and Nitrogen Doping on the Oxygen Reduction Activity of Ordered Mesoporous Carbons (2015) Electrocatalysis, 6 (6), pp. 498-511. DOI: 10.1007/s12678-015-0271-0

16. Dobrota, A.S., Pašti, I.A., Skorodumova, N.V. Oxidized graphene as an electrode material for rechargeable metal-ion batteries - a DFT point of view, (2015) Electrochimica Acta, 176, art. no. 25407, pp. 1092-1099. DOI: 10.1016/j.electacta.2015.07.125

17. Pašti, I.A., Baljozović, M.R., Granda-Marulanda, L.P., Skorodumova, N.V. Bimetallic dimers adsorbed on a defect-free MgO(001) surface: Bonding, structure and reactivity, (2015) Physical Chemistry Chemical Physics, 17 (15), pp. 9666-9679. DOI: 10.1039/c4cp05723f

18. Pašti, I.A., Baljozović, M., Skorodumova, N.V. Adsorption of nonmetallic elements on defect-free MgO(001) surface - DFT study, (2015) Surface Science, 632, pp. 39-49. DOI: 10.1016/j.susc.2014.09.012

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hydrogen evolution reaction, (2015) Physical Chemistry Chemical Physics, 17 (40), pp. 26864-26874. DOI: 10.1039/c5cp04238k

23. Pašti, I.A., Skorodumova, N.V., Mentus, S.V., Theoretical studies in catalysis and electrocatalysis: From fundamental knowledge to catalyst design, (2015) Reaction Kinetics, Mechanisms and Catalysis, 115 (1), pp. 5-32. DOI: 10.1007/s11144-014-0808-x

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27. Pašti, I.A., Gavrilov, N.M., Mentus, S.V. DFT study of chlorine adsorption on bimetallic surfaces - Case study of Pd_3M and Pt_3M alloy surfaces, (2014) Electrochimica Acta, 130, pp. 453-463. DOI: 10.1016/j.electacta.2014.03.041

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29. Momčilović, M., Stojmenović, M., Gavrilov, N., Pašti, I., Mentus, S., Babić, B. Complex electrochemical investigation of ordered mesoporous carbon synthesized by soft-templating method: Charge storage and electrocatalytical or Pt-electrocatalyst supporting behavior, (2014) Electrochimica Acta, 125, pp. 606-614. DOI: 10.1016/j.electacta.2014.01.152

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31. Dimitrić Marković, J.M., Milenković, D., Amić, D., Mojović, M., Pašti, I., Marković, Z.S. The preferred radical scavenging mechanisms of fisetin and baicalein towards oxygen-centred radicals in polar protic and polar aprotic solvents, (2014) RSC Advances, 4 (61), pp. 32228-32236. DOI: 10.1039/c4ra02577f

32. Dimitrić Marković, J.M., Milenković, D., Amić, D., Popović-Bijelić, A., Mojović, M., Pašti, I.A., Marković, Z.S. Energy requirements of the reactions of kaempferol and selected radical species in different media: Towards the prediction of the possible radical scavenging mechanisms, (2014) Structural Chemistry, 25 (6), pp. 1795-1804. DOI: 10.1007/s11224-014-0453-z

33. Vasić Anićijević, D.D., Nikolić, V.M., Marčeta-Kaninski, M.P., Pašti, I.A. Is platinum necessary for efficient hydrogen evolution? - DFT study of metal monolayers on tungsten

carbide, (2013) International Journal of Hydrogen Energy, 38 (36), pp. 16071-16079. DOI: 10.1016/j.ijhydene.2013.09.079

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