

# Noémi Kovács

## CURRICULUM VITAE

### CONTACT

Postal address: Eötvös Loránd University, Institute of Chemistry  
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### PERSONAL DATA

Date&place of birth: 9<sup>th</sup> September 1992, Debrecen, Hungary  
Nationality: Hungarian

### EDUCATION

2016– PhD student  
Doctoral School of Chemistry, Eötvös Loránd University, Budapest  
Laboratory of Electrochemistry and Electroanalytical Chemistry  
*Topic:* Investigation of electrochemical processes by using multielectrode systems  
*Supervisors:* Dr. Soma Vesztergom and Prof. Dr. Győző Láng

2014–2016 MSc studies in chemistry, Eötvös Loránd University, Budapest  
Laboratory of Electrochemistry and Electroanalytical Chemistry  
*Topic:* Investigating the kinetics of electrode processes by the use of rotating ring–  
disk electrodes  
*Supervisors:* Dr. Mária Ujvári and Dr. Soma Vesztergom

2011–2014 BSc studies in chemistry, Eötvös Loránd University, Budapest

2011 High school graduation, Fazekas Mihály Gimnázium, Debrecen

### SKILLS AND COMPETENCES

Electrochemistry: Familiar with routine and advanced electrochemical experimental methods (voltammetry, hydrodynamic systems, electrochemical impedance spectroscopy, etc.).

Languages: Proficiency in English. B2 certificates in English and Spanish, moderate language skills in Italian. Mother tongue: Hungarian.

PC skills: Active user of most basic computer software (MS Office, LaTeX, CorelDRAW, Origin, Mathematica, etc.). Basic programming skills (most often used development environment: NI LabVIEW).

### INTERNATIONAL EXPERIENCE

2016 8 weeks fellowship at the University of Ulm (group of Prof. Dr. Timo Jacob) studying metal deposition from deep eutectic solvents.  
Scholarship granted jointly by the Deutscher Akademischer Austauschdienst and the Hungarian Fellowship Committee. Direct supervisor: Prof. Dr. Tamás Pajkossy.

### AFFILIATIONS

2016– Member of the International Society of Electrochemistry (ISE).

#### GRANTS AND SCHOLARSHIPS OBTAINED

- 2017– *Investigation of the electrochemical stability of titanium alloys applied as dental implants.* 1 year grant provided by the ÚNKP-17-3 New National Excellence Program of the Ministry of Human Capacities.
- 2016–2017 *Investigation of the electrochemical stability of metals and alloys applied as dental implants.* Grant provided by the ÚNKP-16-3 New National Excellence Program of the Ministry of Human Capacities.
- 2015–2016 Scholarship granted by the Republic of Hungary.

#### TEACHING ACTIVITY

- 2014– Gives physical chemistry laboratory classes for students in chemistry from Eötvös Loránd University, and also for students in pharmacy from Semmelweis University.

#### VOLUNTARY ACTIVITY

- 2010– Organizes out-door mathematics team competitions and summer camps for elementary and high school students in the framework of the Mathematics Connects Association. (<http://medvematek.hu/>)

#### PUBLICATIONS – JOURNAL PAPERS

- 2017 **A.V. Rudnev, Y.-C. Fu, I. Gjuroski, F. Stricker, J. Furrer, N. Kovács, S. Vesztergom, P. Broekmann**  
Transport Matters: Boosting CO<sub>2</sub> electroreduction in mixtures of [BMIm][BF<sub>4</sub>]/water by enhanced diffusion  
*ChemPhysChem* 18  
DOI: 10.1002/cphc.201700737
- 2017 **S. Vesztergom, N. Kovács, M. Ujvári, G.G. Láng**  
Apparatus and methods for using a rotating ring–disk electrode with potentiodynamic control of both working electrodes  
*tm - Technisches Messen* 84: 683–696  
DOI: 10.1515/teme-2016-0083
- 2017 **G.G. Láng, N. Kovács, S. Vesztergom, M. Ujvári, D. Zalka, K. Szekeres**  
Experimental methods for the determination of stress changes at electrified solid-liquid interfaces  
*tm - Technisches Messen* 84: 644–658  
DOI: 10.1515/teme-2016-0082
- 2017 **D. Zalka, N. Kovács, K. Szekeres, M. Ujvári, S. Vesztergom, S. Eliseeva, V. Kondratiev, G.G. Láng**  
Determination of the charge transfer resistance of poly(3,4-ethylenedioxythiophene)-modified electrodes immediately after overoxidation  
*Electrochimica Acta* 247: 321–332  
DOI: 10.1016/j.electacta.2017.06.177
- 2016 **S. Vesztergom, N. Barankai, N. Kovács, M. Ujvári, H. Siegenthaler, P. Broekmann, G.G. Láng**  
Electrical cross-talk in four-electrode experiments: A digital simulation approach to the example of rotating ring–disk electrodes  
*Journal of Solid State Electrochemistry* 20: 3165-3177  
DOI: 10.1007/s10008-016-3294-4

- 2016 **S. Vesztergom, N. Barankai, N. Kovács, M. Ujvári, P. Broekmann, H. Siegenthaler, G.G. Láng**  
Electrical cross-talk in rotating ring–disk experiments  
*Electrochemistry Communications* 68: 54–58  
DOI: 10.1016/j.elecom.2016.04.012
- 2016 **M. Ujvári, G.G. Láng, S.Vesztergom, K.J Szekeres, N. Kovács, J.Gubicza**  
Structural changes during overoxidation of electrochemically deposited poly(3,4-ethylenedioxythiophene) films  
*Journal of Electrochemical Science and Engineering* 6: 77–89  
DOI: 10.5599/jese.225
- 2015 **N. Kovács, M. Ujvári, G.G. Láng , P. Broekmann, S. Vesztergom**  
Characterization of the capacitance of a rotating ring–disk electrode  
*Instrumentation Science & Technology* 43: 633–348  
DOI: 10.1080/10739149.2015.1038561
- 2014 **S. Vesztergom, N. Barankai, N. Kovács, M. Ujvári, T. Wandlowski, G.G. Láng**  
Rotating ring–disk electrode with dual dynamic potential control: Theory and practice  
*Acta Chimica Slovenica* 61: 223–232

INTERNATIONAL CONFERENCES (AS PRESENTING AUTHOR)

- 2017 **Noémi Kovács, Laura Sziráki, Soma Vesztergom, Győző G. Láng**  
Investigation of titanium dissolution in acidic media with rotating ring–disk electrodes by using dual dynamic potential control  
*Presented at the 6th Regional Symposium on Electrochemistry of South-East Europe, June 11–15, 2017, Balatonkenese, Hungary*

*A full and up-to-date list of publications can be accessed at*  
<https://vm.mtmt.hu//search/slist.php?lang=1&AuthorID=10051203>.

October 2017, Budapest