Aleksej Romanenko

Curriculum Vitae

Personal data

Birth:	Hungary, Győr
Date:	February 26, 1993
Citizenship:	Hungarian and Ukrainian; nationality: Russian
Name and address of employer:	MTA Centre for Energy Research - Institute of Technical Physics and Materials Science Budapest, Konkoly-Thege Miklós st. 29-33, 1121

Education

2016–2018 **Eötvös Loránd University**, *Materials Science M.Sc.*, Budapest.

Thesis

Modelling of surface nanostructures for sensorics

Supervisor: Dr. Péter Petrik

2012–2016 **Eötvös Loránd University**, *Physics B.Sc.*, Budapest.
Biophysics specialization

Thesis

Modelling of evolution of species

Supervisor: Dr. Géza Meszéna

2008–2012 Révai Miklós Secondary Grammar School

Work experience

2018– Physicist (MTA EK MFA)

2016–2017 Startup member (DEMOLA Budapest)

Research field, main research topics

Characterization of optical thin films, bioellipsometry, *in situ* testing for sensor development, development of ellipsometric instruments and liquid cells.

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Manuscripts being prepared

- A. Romanenko, B. Kalas, J. Nador, A. Nemeth, S. Kurunczi, E. Tóth,, F. Vonderviszt, M. Fried, and P. Petrik: *"Adsorption of filamental nano-objects at solid-liquid interface: real time optical characterization and numerical reconstruction"*
- P. Petrik, A. Romanenko, B. Kalas, T. Novotny, E. Perez-Feró, L. Péter, B. Fodor, E. Ágocs, T. Lohner, Z. Hózer: *"Optical Properties of Oxidized, Hidrogenated and Native Zirconium Surfaces for Wavelengths from 0.2 to30 μm"*
- A. Saftics, B. Kalas, J. Nador, A. Romanenko, É. Tóth, Z. Lábadi, M. Gheorghe, L. Illés, B. Kovács, C. Moldovan, M. Gartner, F. Vonderviszt, M. Fried, P. Petrik: *"Coatings for electronic water pollution sensors"*
- P. Petrik, A. Romanenko, B. Kalas, L. Peter, B. Fodor, E. Ágocs, T. Lohner, T. Novotny, E. Perez-Feró, Z. Hózer: *"In situ and ex situ ellipsometry on zirconium surfaces for nuclear cladding"*
- T. Lohner, A. Nemeth, A. L. Tóth, N. Q. Khánh, E.Szilágyi, P. Petrik, Z. Zolnai, P. Kostka, J. Waizinger, E. Kótai, A. Romanenko, B. Kalas, E. Ágocs, and M. Fried: *"Real-time monitoring of ion bombardment effects in single-crystalline Ge by spectroscopic ellipsometry"*

Conference presentations

2018.06. 18-22. European Materials Research Society Spring Meeting, Strasbourg:

- A. Romanenko, B. Kalas, J. Nador, A. Nemeth, S. Kurunczi, E. Tóth,, F. Vonderviszt, M. Fried, and P. Petrik: *"Adsorption of filamental nano-objects at solid-liquid interface: real time optical characterization and numerical reconstruction",* poster
- P. Petrik, B. Kalas, A. Romanenko, B. Fodor, E. Agocs, T. Lohner, M. Fried: *"Advanced heat- and flow-cells for real time ellipsometry",* oral
- B. Kalas, A. Romanenko, B. Fodor, A. Saftics, J. Nador, K. Ferencz, É. Tóth, M. Fried, F. Vonderviszt, P. Petrik: *"Advanced Kretschmann-Raether ellipsometry of surface nanostructures at solid-liquid interfaces",* poster
- P. Petrik, A. Romanenko, B. Kalas, L. Peter, B. Fodor, E. Ágocs, T. Lohner, T. Novotny, E. Perez-Feró, Z. Hózer: *"In situ and ex situ ellipsometry on zirconium surfaces for nuclear cladding",* poster
- A. Saftics, B. Kalas, J. Nador, A. Romanenko, É. Tóth, Z. Lábadi, M. Gheorghe, L. Illés, B. Kovács, C. Moldovan, M. Gartner, F. Vonderviszt, M. Fried, P. Petrik: *"Coatings for electronic water pollution sensors",* poster
- L. Khomenkova, D. Lehninger, M. Boisserie, S. Ponomaryov, V. Yukymchuk, O.Gudymenko, E. Agocs, A. Romanenko, J. Cardin, F. Gourbilleau, X. Portier, P. Petrik, J. Heitmann: *"Impact of Ge doping on tetragonal high-k phase stability in Ge-rich HfO_2 thin films ",* poster

2018.06. 04-05. Watersafe workshop, Veszprém:

- B. Kalas, A. Saftics, J. Nador, Z. Lábadi, É. Tóth, A. Romanenko, P. Petrik, F. Vonderviszt, M. Fried: *"Adsorption of genetically modified flagellar filaments and Ni-sensing on gold surfaces with and without DSP layer",* oral

Informatics skills

Programming languages:	C, C++, Python
Software:	Gnuplot, POV-Ray, QtiPlot

Languages

Russian	Mother tongue	C2 language exam
Ukrainian	Fluent	
English	Fluent	B2 language exam