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Current Position:

Senior Researcher

Scientific Secretary of the Institute of Geotechnics SAS

Head of Department of Physical and Physico-chemical Methods of Mineral Processing

Profile:

M. Vaclavikova is internationally recognised expert with the core subject of research interest in the field of water and soil remediation techniques, material development, nanotechnology, separation science, purification methods, structural determination techniques, with special emphasis on developing novel methods for the removal and analysis of pollutants at low concentration levels in the environment as well as modelling of migration routes of pollutants and their effect on the ecosystem and human health. M. Vaclavikova is an expert in developing carbon and aluminosilicate based composites with incorporated Fe-nanoparticles and their application for the removal of arsenic, chromium and atrazine from waters. M. Vaclavikova has already obtained funding and coordinated research within 1 H2020 project, 1 FP7 project, 2 APVV projects, 1 NATO-SPS project, 1 NATO ARW, 1 SK-GR bilateral cooperation, 1 SK-UA academic bilateral cooperation, 1 NATO CLG project. She also participated as a researcher on 2 FP7 projects within the scheme Cooperation/Security and People, respectively, 1 project of Belgian Defence-LAND, 1 APVV project, 3 VEGA projects, 1 R&D state order of SR, 1 State program R&D No. SP26/0280C01. She has collaborated with universities, environmental agencies and research groups in Greece, Belgium, UK, USA, Hungary, Bulgaria, Czech Republic, Croatia, Portugal as well as with Slovak, English, Kazakh and Dutch companies in remediation technology and material science fields. In the research carried out, she has collaborated with chemists, material scientists, engineers, health care officers and policy makers under her own initiative, and in all cases, the target objectives were reached. As she has participated in different national and international projects, where she learned to independently develop experimental plans, process data, produce reports and disseminate results, contribute to team work, express and accept constructive criticism as well as organise international scientific events and establish relationships with other partners. She received full funding to organise a prestigious workshop within the NATO Science for Peace and Security Programme, where she acted as NATO-country director and chair of programme and organising committee. She has been invited by US EPA and later accepted as an official delegate of SR to participate on NATO SPS Pilot Study on Clean Products and Processes. In 2008 she obtained the Post-doctoral research position (02/2008-01/2010) at the School of Chemistry, Royal Military Academy, Brussels, Belgium, where she has been engaged within the FP7-Cooperation/Security „FRESP- Advanced First Response Respiratory Protection“. Beside the scientific activities, M. Vaclavikova was also active in the management of this project, where she communicated with 9 partners (including 3 SMEs) from 5 EU countries.

Experience:

2000–current Institute of Geotechnics SAS.

since 2010 – Senior Researcher – IIa

since 2014 – Scientific Secretary of IGT SAS

10/2010-11/2011 Marie Curie Post Fellow, University of Brighton, UK, (FP7-PEOPLE-

	IAPP-Carbosorb).
02/2008–10/2009	PostDoc position Royal Military Academy, Brussels, Belgium (FP7-Collaboration/Security-FRESP).
Organisation of Scientific Meetings:	
2018	Co-chair 21 st International Conference of Waste Recycling (V4 Waste Recycling 21), 22-23.11.2018 Miskolc, Hungary.
2017	4th Workshop on Water and Soil Clean-Up from Mixed Contaminants, Astana, Kazakhstan
2017	Chair of 20 th International Conference of Waste Recycling (Waste Recycling 20), Košice, SR.
2016	3rd Workshop on Water and Soil Clean-Up from Mixed Contaminants, Košice, SR.
2015	Autumn School on Advanced Adsorption and Oxidation Techniques for the Removal of Xenobiotics & 2nd Workshop on Water and Soil Clean-up from Mixed Contaminants, 11-15 Október 2015, Thessaloniki, Grécko.
2014	Chair of the 17th International Conference of Waste Recycling (Waste Recycling 17) Košice, SR.
2008	„NATO Advanced Research Workshop: „Water treatment technologies for the removal of high toxicity pollutants”, 13-16.9.2008 Košice, SR.
2007	ICMF 11- 11th International Conference on Magnetic Fluids, Júl 2007, Košice, SR.
Projects:	
1. H2020-MSCA-RISE-2016-NANOMED project No 73464, Nanoporous and Nanostructured Materials for Medical Applications. Scientist in Charge IGT SAS.	
2. FP7-PEOPLE-COFUND-2013-BISILMAG projekt č. 1298/03/01 Bifunctional Silica and Magnetite Spherical Particles with Tailored Porosity and Surface Chemistry for Complex Water Treatment, 03/2016-12/2018. Scientist in Charge.	
3. FP7-PEOPLE-2013-IAPP-WaSClean-612250 „Water and Soil Clean=up from Mixed Contaminants“, FP7-People-Industry Academia Partnership and Pathways, 10/2013-09/2017, Coordinatr of Consortium, Principal Investigator.	
4. APVV-0252-10 „Development of Advanced Water Treatment Technologies for the Removal of Inorganic Pollutants“, APVV - VV2010, 05/2011-10/2014, Principal Investigator.	
5. NATO SPS Multi-Year Project EAP.SFPP 984403 „Technical Advances to Detect and Remove Contaminants in Water for Safety and Security“, NATO – Science for Peace & Security, 11/2012 - 04/2016, NATO-Country Co-Director / Principal Investigator, SR.	
Five representative publications:	
Researcher ID (in SCOPUS): 12038814600	
JÁGER, Dávid – KUPKA, Daniel – VÁCLAVÍKOVÁ, Miroslava – IVANIČOVÁ, Lucia – GALLIOS, G.P. Degradation of Reactive Black 5 by electrochemical oxidation. In Chemosphere, 2018, vol. 2, n. 10, p. 405-416. (4.427 – IF2017). ISSN 0045-6535.	
GALLIOS, G.P. – TOLKOU, Athanasia K. – KATSOYIANNIS, Ioannis A. – ŠTEFUŠOVÁ, Katarína – VÁCLAVÍKOVÁ, Miroslava – DELIYANNI, Eleni A. Adsorption of Arsenate by Nano Scaled Activated Carbon Modified by Iron and Manganese Oxides. In Sustainability, 2017, vol. 9, no. 10, p.1684. (1.789 – IF2016).	
KOTSYUDA, Sofiya S. – TOMINA, Veronika – ZUB, Yuriy – VÁCLAVÍKOVÁ, Miroslava – FURTAT, Iryna – LEBED, Anastasia P. – MELNYK, Inna. Bifunctional silica nanospheres with 3-aminopropyl and phenyl groups. Synthesis approach and prospects of their applications. In Applied Surface Science, 2017, vol. 420, p. 782-791. (3.387 – IF2016).	
VASEASHTA, A. – VÁCLAVÍKOVÁ, M. – VASEASHTA, S. – GALLIOS, G.P. – ROY, P. – PUMMAKARNCHANA, O.: Nanostructures in Environmental Pollution Detection, Monitoring and	

Remediation. In: Science and Technology of Advanced Materials. Vol. 8 (2007), No. 1-2, pp. 47-59.

GALLIOS, GP. - **VÁCLAVÍKOVÁ, M.**, Removal of chromium (VI) from water streams: a thermodynamic study. In Environmental Chemistry Letters, 6(4), pp. 235-240, 2008. ISSN: 1610-3653. (IF2014 – 1,906).

Fellowships / Awards / Memberships of Scientific Societies:

2003-2008 Delegate of Slovakia of the NATO CCMS on Clean Products and Processes, Phase II

2012 Editorial board of the journal Nanomaterials and the Environment

2000 Slovak Mining Society

2011 International Sol-Gel Society