

Curriculum Vitae (updated on 14/06/2017)

General information

Viacheslav (Slava) SHKIRSKIY, 27-year-old



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Employment

Postdoctoral researcher

2016 - present

Max-Planck-Institut für Eisenforschung GmbH, Corrosion group, Düsseldorf, Germany

Team leader: *Dr. Michael Rohwerder*

« *Scanning Kelvin Probe study of the effect of CO₂ on delamination kinetics* »

2015 - 2016

ENSCP - IRCP, I2E group, Paris, France

Team leaders: *Dr. Vincent Vivier, Dr. Polina Volovitch*

« *Mechanisms of degradation of metal/oxide/polymer interfaces for novel aeronautic applications – methodology development and kinetic studies* »

Education

PhD in physical and analytical chemistry, defended on September 24

2012 October –
2015 September

Université Pierre et Marie Curie, Chimie ParisTech, Paris

Scholarship from Campus France

Scientific supervisors: *Dr. Polina Volvitch and Prof. Kevin Ogle*

« *Corrosion inhibition of galvanized steel by LDH - inhibitor hybrids: Mechanisms of Inhibitor Release and Corrosion Reactions* ».

2012 March-May

Master internships

Institut de Recherche Chimie Paris - Chimie ParisTech, PCS group, Paris

Scientific supervisor: *Prof. Kevin Ogle*

Title: “*Time resolved quantification in atomic emission spectroelectrochemistry*”

2007 - 2012

Bachelor and Master programmes

Department of Chemistry, Moscow State University, Moscow, Russia

Internship at the final year of study at Laboratory of Kinetics and Catalysis

Team leader: *Dr. Irina Ivanova*

« *Dehydration of methanol in packed bed membrane reactor* »

Distinctions

2017

Research grant, short-term grant from DAAD, March - May

2016

Invited speaker at 57th Corrosion Science Symposium, UK, 5-6 September

Travel grant from Royal Society of Chemistry

Award for the best poster at 1st International Summer School of Multifunctional Smart Coatings and Surfaces, Aveiro, Portugal, 25-29 July

2007, 2012, 2015

BacS, M. Sc. and PhD diplomas with honors

Teaching activities

2016 October – 2017 February	Teacher of mathematics in Russian Gymnasium in Paris
2014 – 2015	Teaching assistant Bachelor's degree, Chimie ParisTech, Paris. Practical Works in physical and analytical chemistry (82.5 h)
2013-2016	Scientific supervisor for internships, Master's degree: Yaroslav Simonov ("Investigation of Zn, Al and Mg equilibrium in different environments", titrations) March – April 2013 Kha Nguen ("Study of leaching from Zn ₂ Al/-MoO ₄ ²⁻ LDH systems", ICP-OES) Mai – June 2014 Alina Maltseva ("EIS/AESEC investigation of ZnAlMg alloys in additions of NH ₄ ⁺ and HCO ₃ ⁻ ", EIS coupled with AESEC) April 2015 Dimitry Burliaev ("LEIM investigation of delamination on Zn") March – July 2016 Ewerton Luiz ("In-situ Raman and Time lapse microscopy study of delamination on ZnNi") March – July 2016 Co-supervisor for internships, Master's degree: Maxime Mison (Engineer internship PPG BFS France, responsible: Laurent Deronne), August – September 2013

Relevant skills

Properties and phenomena	Properties of solid/liquid interfaces, electrochemical metal dissolution, passivity, corrosion inhibition, delamination
Personal achievements	development of local EIS, electrochemical flow cell development, species distribution modelling, design of experiments in LabView/Python environments
Techniques, expert level	DC/AC electrochemical global and local methods in particular global and local EIS, simulation tools of specie and electrical field distribution, analytical chemistry spectroscopic techniques (ICP-OES, UV-Vis Spectroscopy) and other techniques such as titrations, chromatography, corrosion tests (immersion test, weight loss measurement)
Techniques, user level	surface analytical techniques (SEM, XPS, Infrared and Raman spectroscopy), thermodynamic and kinetic calculations
Software tools	Comsol Multiphysics, LabView, Matlab, Python, OriginLab, Latex, Hydra Meduza, MS Office, Basic knowledge of C/C++ and 3D design
Languages	English, French – full professional proficiency, Russian – mother tongue

Recent selected publications

(11 articles in peer-reviewed journals were published,
the full list can be consulted on <http://www.shkirskiy.org/scientific-articles>)

1. V. Shkirskiy, P. Volovitch, V. Vivier, *Development of quantitative Local Electrochemical Impedance Mapping: an efficient tool for the evaluation of delamination kinetics*, **Electrochimica Acta**, 235 (2017) p. 397-409
2. V. Shkirskiy, P. Keil, H. Hintze-Bruening, F. Leroux, P. Vialat, G. Lefevre, K. Ogle, P. Volovitch, *Factors Affecting MoO₄²⁻ Inhibitor Release from Zn₂Al Based Layered Double Hydroxide and Their Implication in Protecting Hot Dip Galvanized Steel by Means of Organic Coatings*, **Applied Materials and Interfaces**, 7 (2015) p. 25180-25191
3. V. Shkirskiy, K. Ogle, *A novel coupling of electrochemical impedance spectroscopy with atomic emission spectroelectrochemistry: Application to the open circuit dissolution of zinc*, **Electrochimica Acta**, 168 (2015) p. 167-172.