

Biographical Sketch

Name: Mihai E. Vaida

Job Title: Assistant Professor

Professional Address: 4353 Scorpius Street, Research 1 Bldg., Room 167, Orlando, FL 32816

Telephone Number: 510-599-2914

Email Address: mihai.vaida@ucf.edu

(a) Professional Preparation

West Univ. of Timisoara	Timisoara, Romania	Physics	BS, Jul. 2002
West Univ. of Timisoara	Timisoara, Romania	Physics	MS, Jul. 2004
Ulm University	Ulm, Germany	Phys.-Chem.	PhD, Jan 2011
Univ. of California Berkely	Berkeley	Phys.-Chem	Apr. 2011 – Sep 2016

(b) Appointments

- University of Central Florida, Orlando
Assistant Professor (since Sep. 2016)
- University of California, Berkeley / Lawrence Berkeley National Laboratory, Berkeley
Postdoctoral Research Fellow (2011 - 2016)
- University of Ulm, Ulm, Germany
Graduate Teaching Assistant (2006 - 2011)
- Free University of Berlin, Berlin, Germany
Undergraduate Teaching Assistant (2003 - 2004)

(c) Publications

(i) Five (5) publications/products that are the **most current** ones related to my field:

1. Md Afjal Khan Pathan, Aakash Gupta, and **Mihai E. Vaida**, *Understanding the effect of an amorphous surface on the ultrafast dynamics of a heterogeneous photoinduced reaction: CD_3I photoinduced reaction on amorphous cerium oxide films*, Phys. Chem. Lett. (2022) 13, 41, 9759–9765
2. **Mihai E. Vaida**, Takat B. Rawal, Thorsten M. Bernhardt, Brett M. Marsh, Talat S. Rahman, and Stephen R. Leone, *Non-metal to metal transition of magnesia supported Au clusters affects the ultrafast dissociation dynamics of adsorbed CH_3Br molecules*, J. Phys. Chem. Lett. 2022, 13, 4747–4753
3. Md Afjal Khan Pathan, Aakash Gupta, and **Mihai E. Vaida**, *Exploring the growth and oxidation of 2D-TaS₂ on Cu(111)*, Nanotechnology 32, 505605 (2021)
4. S. K. Cushing, I. J. Porter, B. R. Lamoureux, A. Lee, B. M. Marsh, S. Szoke, **M. E. Vaida**, S. R. Leone, *Layer-Resolved Ultrafast XUV Measurement of Hole Transport in a Ni-TiO₂-Si Photoanode*, Science Advances Science Advances **6**, 14, eaay6650 (2020)
5. **Mihai E. Vaida**, B. M. Marsh, and S. R. Leone, *Nonmetal to Metal Transition and Ultrafast Charge Carrier Dynamics of Zn Clusters on p-Si(100) by fs-XUV Photoemission Spectroscopy*, Nano Lett., **18**, 4107 (2018)

(ii) Five (5) other significant publications/products:

1. Brett T. Young, Md Afjal Khan Pathan, Tao Jiang, Duy Le, Nikki Marrow, Trong Nguyen, Cody E. Jordan, Talat S. Rahman, Denisia M. Popolan-Vaida, and **Mihai E. Vaida**, *Catalytic C₂H₂ synthesis via low temperature CO hydrogenation on defect-rich 2D-MoS₂ and 2D-MoS₂ decorated with Mo clusters*, J. Chem. Phys. **152**, 074706 (2020).
2. B. M. Marsh, **Mihai E. Vaida**, S. K. Cushing, B. Lamoureux, and S. R. Leone, *Measuring the surface photovoltage of a Schottky barrier under intense light conditions: Zn/p-Si(100) by laser time-resolved extreme ultraviolet photoelectron spectroscopy*, J. Phys. Chem. C, **121**, 21904 (2017)
3. **Mihai E. Vaida** and Thorsten M. Bernhardt, *Tuning the ultrafast photodissociation dynamics of CH₃Br on ultrathin MgO films by reducing the layer thickness to the 2D limit*, Chem. Phys. Lett. **688**, 106 (2017)
4. **Mihai E. Vaida** and Stephen R. Leone, *Femtosecond XUV photoemission spectroscopy: Observation of ultrafast charge transfer at the n-TiO₂/p-Si(100) interface with controlled TiO₂ oxygen vacancies*, J. Phys. Chem. C, **120**, 2769 (2016)
5. **Mihai E. Vaida** and Thorsten M. Bernhardt, *Surface pump-probe femtosecond-laser mass spectrometry: Time-, mass-, and velocity-resolved detection of surface reaction dynamics*, Rev. Sci. Instrum., **81**, 104103 (2010)

(d) Graduate Teaching Experience

PHY 6918 Directed Research
PHY 7980 - Dissertation

(e) Graduate students mentored (to completion, if applicable)

- *List up to 5 most recent- Chair of thesis/dissertation committees:*
Md Afjal Khan Pathan, PhD in Physics, June 2021
- *List up to 5 most recent - Member of thesis/dissertation committees: **member of 8 thesis/dissertation committees, only 3 students have graduated to date.***
 1. Zackary Parsons, PhD in Physics, Mar. 2023
 2. Asim Khaniya, PhD in Physics, Dec. 2020
 3. Gavin Pour, PhD Chemistry, Mar. 2019
- *List total number of graduate students mentored on thesis/dissertation committees over the course of your career: 4*

(f) Other synergistic activities related to Graduate Education

1. Organizer of a webinar series for graduate students “Distinguished Lecture Series on Catalysis” in which renowned scientists from various institutions gave talks every second week (Sept. 2020 - May 2021).
2. Chair and organizer of an AVS Short course on Catalysis and Catalytic Materials for graduate students (Mar. 8, 2020)
3. Chair and organizer of an AVS Short course on Surface Science and Nanomaterials for graduate students (Mar. 10, 2019)
4. Reestablish and advised the “University of Central Florida Student Chapter of the American Vacuum Society”. The objectives of the UCF-AVS student chapter are to promote student research, education, and professional development in a variety of disciplines related to materials, interfaces, and catalysis.