Alexandr Fonari

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EDUCATION:

Ph. D. Chemistry from Georgia Institute of Technology, USA (2011 – *expected 2016*). GPA: 3.83/4.00.
M. Sc. Chemistry from New Mexico Highlands University, USA (2009 – 2011). GPA: 3.88/4.00.
B. Sc. Physics from Moldova State University, Moldova (2006 – 2009). GPA: 8.40/10.00.

PEER-REVIEWED PUBLICATIONS (Google Scholar profile):

1. L. Zhang, A. Fonari, *et al.*, Chem. Eur. J. (2013): 10.1002/chem.201303308. Back cover.
2. A. R. Morales, A. Frazer, A. W. Woodward, H.-Y. Ahn-White, A. Fonari, *et al.*, J. Org. Chem (2013): 10.1021/jo302423p
3. E. S. Leonova, N. S. Makarov, A. Fonari, *et al.*, J. Mol. Struct. (2013): 10.1016/j.molstruc.2012.12.034
4. A. O. El-Ballouli, R. S. Khnayzer, J. C. Khalife, A. Fonari, *et al.*, J. Photochem. Photobiol. A (2013): 10.1016/j.jphotochem.2013.07.018
5. B. R. Kaafarani, A. O. El-Ballouli, R. Trattnig, A. Fonari, *et al.*, J. Mater. Chem. C (2013): 10.1039/c2tc00474g
6. I. V. Magedov, N. M. Evdokimov, A. S. Peretti, M. Karki, D. T. Lima, L. Frolova, M. R. Reisenauer, A. E. Romero, P. Tongwa, A. Fonari, *et al.*, ChemComm (2012): 10.1039/C2CC35044K
7. L. E. Polander, L. Pandey, A. Romanov, A. Fonari, *et al.*, J. Org. Chem. (2012): 10.1021/jo3006232
8. I. V. Kosilkin, E. A. Hillenbrand, P. Tongwa, A. Fonari, *et al.*, J. Mol. Struct. (2011): 10.1016/j.molstruc.2011.09.032
9. A. Fonari, *et al.*, J. Mol. Struct. (2011): 10.1016/j.molstruc.2011.06.020
10. A. Fonari, *et al.*, J. Mol. Struct. (2011): 10.1016/j.molstruc.2011.04.039
11. A. Fonari, *et al.*, Polyhedron (2011): 10.1016/j.poly.2011.04.002
12. E. S. Leonova, M. V. Makarov, E. Y. Rybalkina, S. L. Nayani, P. Tongwa, A. Fonari, *et al.*, Eur. J. Med. Chem (2010): 10.1016/j.ejmech.2010.09.058

AWARDS AND MEMBERSHIPS:

- *Contributor to NWChem*: a scalable open-source software package for large quantum chemistry simulations.
- *Contributor to QUANTUM ESPRESSO*: an open-source software suite for electronic-structure calculations of single molecules, interfaces and solids.
- *Member of Phi Kappa Phi* Honor Society member.
- *2nd poster award* at the Southeast Theoretical Chemistry Association Meeting (May 17-19, 2012, Athens, GA).
- *Participant of the "Advanced QUANTUM ESPRESSO Developer Training"* (December 9-19, 2013, Trieste, Italy).

APPOINTMENTS:

• 2011 – Present	Research Assistant, Brédas lab,	Georgia Institute of Technology, USA.
• Fall, 2011	Teaching Assistant, General Chemistry (101),	Georgia Institute of Technology, USA.
• 2010 – 2011	Research Assistant, X-Ray facility,	New Mexico Highlands University, USA.
• Fall, 2009	Teaching Assistant, Quantitative Analysis (321),	New Mexico Highlands University, USA.
• 2008 – 2009	Teaching Assistant, Computer Science (101),	Moldova State University, Moldova.
• 2008 – 2009	High School Physics Teacher,	Gaudeamus Lyceum, Moldova.

POSTER PRESENTATIONS:

1. A. Fonari, *et al.*, *Theoretical evaluation of the charge-transport characteristics of the crystalline derivatives of dibenzo[b,def]chrysene (DBC)*, Georgia Tech Research & Innovation Conference (November 7-11, 2013, Atlanta, GA).

2. A. Fonari, *et al.*, *Electronic Properties of (BEDT-TTF)(X2TCNQ) Crystals: a Density Functional Theory Study*, Southeast Theoretical Chemistry Association Meeting (May 17-19, 2012, Athens, GA).

3. A. Fonari, *et al.*, *Angular Tetrachloro[6]Phenylene: a Step Toward Circular Phenylenes*, American Crystallographic Association Meeting (May 28-June 2, 2011, New Orleans, LA).

4. A. Fonari, *et al.*, *Structural Characterization of Novel Pyrene-Based Molecules*, International Symposium of Functional π-Electron Systems: Fπ-9 (May 23-28, 2010, Atlanta, GA).

5. F. M. Jradi, A. Fonari, *et al.*, *Two Polymorphs of 18-Crown-6 Derivative of Phenanthro[4,5-abc]Phenazine*, 65th Southwest Regional Meeting of the ACS (November 04-07, 2009, El Paso, TX).

6. A. Fonari, *et al.*, *Effects of Intra- and Intercenter Interactions in Spin-crossover*, International Conference dedicated to the 50-th anniversary from the foundation of the Institute of Chemistry of the Academy of Sciences of Moldova (May 26-28, 2009, Chisinau, Moldova).

RESEARCH EXPERIENCE:

❖ Georgia Institute of Technology:
- Investigated semiconducting character and spectroscopic properties of organic charge-transfer complexes.
- Implemented model Hamiltonians using Python and FORTRAN languages and numpy and LAPACK libraries.

❖ New Mexico Highlands University:
- Applied single-crystal X-ray diffraction (XRD) technique to study organic, organometallic compounds, and metal-organic frameworks.
- Solved and refined crystal structure using direct and Patterson methods based on the diffraction patterns.

LEADERSHIP:

- Introduced an undergraduate student to single-crystal X-ray diffraction experiment and structure refinement techniques. Published a paper: J. Mol. Struct. (2011): 10.1016/j.molstruc.2011.09.032
- Introduced an undergraduate student to band-structure and effective mass calculations. Manuscript in preparation.

INTERNSHIPS:

- Summer, 2010: Summer school "*Hooked on Photonics*" at Georgia Institute of Technology, Atlanta, GA, USA. Sponsored by National Science Foundation.
- Summer, 2009: Summer school at X-Ray Structural Centre, Russian Academy of Sciences, Moscow, Russia.