

Vassiliy Lubchenko

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Education:

- B.S. Moscow Institute of Physics and Technology; Moscow, USSR
 - M.S. Moscow Institute of Physics and Technology; Kiev Division, Kiev, Ukraine
 - M.S. Carnegie Mellon University; Pittsburgh, PA
 - Ph.D. University of Illinois at Urbana-Champaign; Urbana, IL
- PhD Advisor: Prof. Peter G. Wolynes

Employment History:

Professor of Chemistry and Physics, University of Houston	2019 - present
Associate Professor of Chemistry and Physics, University of Houston	2011 - 2019
Assistant Professor of Chemistry and Physics, University of Houston	2005 - 2011
Postdoctoral Fellow, Massachusetts Institute of Technology	2003 - 2005

Honors and Awards:

- Sloan Research Fellowship, 2011-2013
- NSF CAREER Award, 2010-2015
- Beckman Young Investigator, 2008-2011

Recent Research Highlights:

- Principles of reliable artificial intelligence
- Mechanism of puzzling photoemission in alkali and monovalent metals
- Mechanism of electrical conduction in glassy intermetallic alloys

Lab Facilities / Expertise:

Theoretical Physical Chemistry, Phase Transitions, Inorganic Solid State Chemistry, Artificial Intelligence

Five Selected Publications:

1. "The mechanism of electrical conduction in glassy semiconductors," A. Kurnosov and V. Lubchenko, **2024**, submitted to *Phys. Rev. Lett.*, preprint available on *cond-mat*: <https://arxiv.org/abs/2407.04829>.
2. "Cavitation in electron fluids and the puzzles of photoemission spectra in alkali metals," R. Dmitriev, J. Green, and V. Lubchenko, *Phys. Rev. B.*, **2024**, *109*, 045125.
3. "Theory Of The Structural Glass Transition: A Pedagogical Review," V. Lubchenko, *Adv. Phys.*, **2015**, *64*, 283-443.
4. "A mechanism for reversible mesoscopic aggregation in liquid solutions," H. Y. Chan and V. Lubchenko, *Nature Comm.*, **2019**, *10*, 2381.
5. "Theory of structural glasses and supercooled liquids," V. Lubchenko and P. G. Wolynes, *Annu. Rev. Phys. Chem.*, **2007**, *58*, 235.

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