

BRIAN D. NGUYEN

🌐 LinkedIn: brian-nguyen ✉ bdnгуe2@uci.edu 📍 Irvine, California ☎ (714) 204-6033

EDUCATION

University of California, Irvine

Ph.D. in Chemistry with concentration in Chemical and Materials Physics

Sept 2016 - May 2022

University of California, Irvine

B.S. Chemistry, cum laude & B.S. Biology, cum laude

Sept 2011 - Mar 2015

RESEARCH EXPERIENCE

Graduate Researcher, Chemistry - University of California, Irvine

Sept 2016 - present

Advisor: Philipp Furche

Theory and Development Project

- Derived, developed, and applied AC-SAPT to diagnose and determine computational methods that can accurately predict noncovalent interactions

Selected Application-based Project from 3 Different Collaborations

- Communicated with experimentalists from the Vanderwal Lab at UCI and modelled the ~400,000 atoms chlorolissoclimide and 80S ribosome complex using quantum mechanics and expanding the lissoclimide family for protein synthesis inhibition; publication *in prep*

WORK EXPERIENCE

Morpho Detection, LLC - Santa Ana, CA

Dec 2015 - Jun 2016

Chemist Intern

- Tested the accuracy of mass spectrometry device for bomb detection and communicated with senior scientists on the development of the devices
- Calibrated and tested the bomb detection accuracy of the devices for government certification

SELECTED PUBLICATIONS FROM 9 PUBLISHED AND 2 IN PREPARATION

* Indicates that authors contributed equally

- Nguyen, B.D.***; Hernandez, D.J.*; Flores, E.; Furche, F. Dispersion Size-Consistency. *Electron. Struct.* **2021**, 4(1), 014003.
- Editor's Pick* - **Nguyen, B.D.***; Yu, J.M.*; Tsai, J.; Furche, F. Selfconsistent Random Phase Approximation Methods. *J. Chem. Phys.* **2021**, 155(4), 040902.
- Nguyen, B.D.**; Chen, G.P.; Agee, M.M.; Burow, A.M.; Tang, M.P.; Furche, F. Divergence of Many-Body Perturbation Theory for Noncovalent Interactions of Large Molecules. *J. Chem. Theory Comput.* **2020**, 16(4), 2258–2273.
- Nguyen, B.D.***; Hollingsworth, S.A.*; Chreifi, G.; Arce, A.P.; Poulos, T.L. Insights into the Dynamics and Dissociation Mechanism of a Protein Redox Complex Using Molecular Dynamics. *J. Chem. Info. Model.* **2017**, 57(9), 2344–2350.

SELECTED PRESENTATIONS FROM 6 CONFERENCES

- 2022 Spring ACS National Meeting & Expo**, San Francisco, CA - *accepted* Oral.
Nguyen, B.D.; Hernandez, D.J.; Flores, E.V.; Furche, F. Dispersion Size Consistency, March **2022**.
- 2020 Fall ACS National Meeting & Expo**, San Francisco, CA - Poster.
Nguyen, B.D.; Chen, G.P.; Agee, M.M.; Burow, A.M.; Tang, M.P.; Furche, F. Divergence of Many-Body Perturbation Theory, April **2020**.

SELECTED MENTORING EXPERIENCE FROM 5 ACTIVITIES

Furche High School Outreach Program - Irvine, CA

Sept 2016 - June 2022

Program Coordinator

- Led the outreach program to provide research opportunities for underserved communities throughout the United States; cultivated a community with 21 high school students and 12 graduate mentors
- Volunteered 5000+ hours and co-authored National Science Foundation grant to support the program

SELECTED AWARDS AND HONORS

UCI School of Physical Sciences Faculty Endowed Fellowship

Jun 2021

UCI Chancellor's Undergraduate Award of Distinction

Jun 2015

Phi Beta Kappa

May 2015

Phi Lambda Upsilon

May 2015

Hypercube Scholar Award

Jun 2014

OC American Chemical Society Undergraduate Award

Apr 2014