

# Moyassar Meshhal

*PhD student and research assistant at the university of Rostock.*

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## Research interests

Computational Chemistry/Physics, 2D Materials, MD Simulations, Machine learning

## Education

- Oct. 2019 – Present      **University of Rostock** – Rostock, Germany  
PhD in Physics  
**Project:** 2D Materials Simulations.  
**Mentor:** Prof. Dr. Oliver Kühn.
- Sep. 2016 – Feb. 2019      **Menofia University** – Menofia, Egypt  
MSc in Computational Chemistry  
**Thesis Title:**  
"A Computational Study on the Structure and Stability of Different Tautomers of Phenanthroline Analogues"  
**Mentors:** Prof. Dr. Ahmed El-Nahas & Dr. Mohamed Shibl.

## Publications

- 2022      **The Role of Hydrogen-Bonded Bridges for the Diffusion of Water Confined Between Graphene Oxide Layers**  
Moyassar M. Meshhal, Oliver Kühn.  
*submitted.* [ChemRxiv Link](#)
- 2019      **A Thermochemical Computational Study on Hydroxyquinlines and their Azulene Analogues**  
Moyassar M. Meshhal, Safinaz H. El-Demerdash, Ahmed M. El-Nahas.  
*Journal of Molecular Structure*, 1183 (2019) 70-77.
- 2018      **A Computational Study on Molecular Structure and Stability of Tautomers of Dipyrrole-Based Phenanthroline Analogue**  
Moyassar M. Meshhal, Mohamed F. Shibl, Safinaz H. El-Demerdash, Ahmed M. El-Nahas.  
*Computational and Theoretical Chemistr*, 1145 (2018) 6–14.

## Professional memberships

2019 – Present

**Egypt's delegate** for: International Younger Chemists Network (**IYCN**)

**Description:** *An affiliated organization of the International Union of Pure and Applied Chemistry (IUPAC), connecting chemists in the early stages of their career.*

## Technical skills

### Programming languages

Familiar with: Python, Bash scripting

### Software

Linux, Vim, L<sup>A</sup>T<sub>E</sub>X, Git, Anaconda, Jupyter-Notebook

### Computational chemistry packages

Gaussian, Orca, CP2K, DFTB+, CP-PAW

### Languages

**Arabic** (Mother tongue), **English** (advanced), **German** (beginner)

## Other interests

Reading, cycling.