



Suleman Jalilahmad Ansari

Doctoral Student

Department of Physics

Indian Institute of Technology, Jodhpur

Karwar, Rajasthan, 342030, INDIA

Contact

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Email: ansari.1@iitj.ac.in

Phone: +91-8805687888

Address: #355, Jaihind Nagar,
Loni Station, Kadam Wak
Vasti, Taluka-Haveli,
District-Pune, 412201,
Maharashtra, INDIA



Languages

	Read	Write	Speak
English	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Marathi	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hindi	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Urdu	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Arabic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sanskrit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Hobbies

- ❖ Reciting the Quran
- ❖ Cycling

Career Objective

I am an enthusiastic fast learner with a broad interest in modeling and investigating various properties of soft condensed matter materials. I particularly enjoy collaborating with scientists from different disciplines to develop new skills and solve new challenges.

Education

Ph.D. (Physics) (Pursuing: 5th year) Since 2019

[Course Work: 9.5/10 CGPA]

IIT Jodhpur, India.

[“Ion transport in biopolymer-based saltwater membranes”](#)

Thesis advisor: Dr. Santosh Mogurampelly

M.Sc. (Physics) [7.84/10 CGPA] 2019

Dept. of Physics, SPPU, Pune, India.

(Specialization: Adv. Quantum Mechanics)

[“Study of Double well potential using path integral approach.”](#)

Thesis advisor: Dr. Shailesh Kulkarni

B.Sc. (Physics) [89.33%] 2016

H. V. Desai College, SPPU, Pune, India.

(Mathematics and Statistics: Up to 2nd year)

[“Study Of NaI\(Tl\) Scintillation Gamma Ray Spectrometer”](#)

Thesis advisor: Dr. G.R. Pansare

H.S.C. (12th) [84.17%] 2013

College of Arts, Commerce & Science, Loni Kalbhor, Pune, India

(Physics, Chemistry, Math. and Geography)

S.S.C. (10th) [94.55%] 2011

PKM High School, Loni Kalbhor, Pune, India

Publications

- Ansari, S. J.**, Kundu, S., & Mogurampelly, S. “Molecular Dynamics Simulations of the Effect of Starch on Transport of Water and Ions Through Graphene Nanopores.” *J. Mol. Model.*, 2024, **30**, 125. [IF: 2.172] 2024
- Ansari, S. J.**, Haider, S., Mohapatra, S., Varanasi, S. R., & Mogurampelly, S. “Effects of pectin and temperature on the diffusion of ions and water in saltwater membranes.” *J. Mol. Liq.*, 2024, **396**, 124045. [IF: 6.633] 2024
- Mohapatra, S.; Teherpuria, H.; Chowdhury, S. S. P.; **Ansari, S. J.**; Jaiswal, P. K.; Netz, R. R.; Mogurampelly, S. “Ion Transport Mechanisms in Pectin-Containing EC-LiTFSI Electrolytes”, *Nanoscale*, 2024, **16**, 3144 - 3159. [IF: 8.307] 2024
- Saini, R., **Ansari, S. J.**, Debnath, A., “Aggregation of chlorophylls on plant thylakoid membranes using coarse-grained simulations.” *Phys. Chem. Chem. Phys.*, 2023, **25**(16) [IF: 3.676] 2023

Manuscripts Submitted

Following manuscripts are planned to be submitted very soon.

Manuscripts Under Preparation

- Suleman Jalil Ahmad Ansari**, Sipra Mohapatra, Giacomo Fiorin, Michael L. Klein, and Santosh Mogurampelly. “Mechanisms Underlying Proton Transport in Sulfuric Acid Through ab-initio Molecular Dynamics Simulations” 2024
- Suleman Jalil Ahmad Ansari**, Salman Haider, Souhitya Kundu and Santosh Mogurampelly. “Ion transport in CNT-polymer based saltwater membranes ” 2024
- Suleman Jalil Ahmad Ansari**, and Santosh Mogurampelly. “Mechanical Properties and deformation mechanism in mono and bilayers of graphene” 2024
- Suleman Jalil Ahmad Ansari**, and Santosh Mogurampelly. “Mechanical Properties and deformation mechanism in mono and bilayers of h-BN” 2024

Conferences

- Presented poster at **CECAM-MD@60 (JNCASR, Bengaluru)** conference entitled, “Structure and Transport Insights in Polymer-based Saltwater Membranes.” Feb 2024
- Presented poster at **NC-EMAD (IIT Jodhpur)** conference entitled, “Investigation of ion transport through polymer-graphene-based membranes.” Dec 2022
- Presented poster at **37th National Symposium on Plasma Science & Technology (PLASMA-22) (IIT Jodhpur)** conference entitled, “Influence of viscosity and relaxation phenomena on ion transport in simple and complex electrolytes.” Dec 2022

Presented poster at **DAE BRNS Symposium on Current Trends in Theoretical Chemistry (CTTC-2022) (BARC Mumbai)** conference entitled, “Investigation of ion transport through the polymer-graphene-based membrane.”

Sep 2022

Skills and Experience

- HPC Server (512 cores, 6.35 TFlops) administration at IIT Jodhpur.
- Efficient handling of Molecular Mechanics/Dynamics, Coarse Grain, and *ab initio* simulations on HPC, DGX-2, and DGX-A100 clusters at IIT Jodhpur.
- Active user of LAMMPS, GROMACS, Quantum Espresso, PACKMOL, GaussView, Avogadro, and NAMD2 packages.
- Writing Analysis programs in FORTTRAN-90/95, C++, MATLAB, and PYTHON.
- BASH, TCL, AWK, SED, etc. scripting for efficient handling of scientific data.
- Proficiency in data visualization tools such as XMGrace, VMD, and GNUPLOT.
- Competent user of Linux and Windows operating systems.
- Teaching Assistance at IIT Jodhpur for B. Tech. Students in (1) Electromagnetism and Optics Course and, (2) Basic Physics Lab.
- Teaching Assistance at IIT Jodhpur for M.Sc./Ph. D. Students in Computational Physics, Computational materials science, Soft Matter Physics, Statistical Physics, Physics of Complex Fluids along with invigilation duties.

Achievements

Qualified Joint CSIR-UGC NET (JRF) (Physical Science)	June 2023
Qualified Graduate Aptitude Test In Engineering (GATE) (PH) (2018,2019 and, 2024)	2024
Qualified Maharashtra (MH) State Eligibility Test (SET) (Physical Science)	June 2019
Qualified Joint CSIR-UGC NET (LS) (Physical Science)	Dec 2018
INSPIRE Scholarship from the Department of Science and Technology (DST), INDIA	2013-2018

References

Dr. Santosh Mogurampelly

Associate Professor,
Department of Physics,
IIT Jodhpur, INDIA

[Email](#) [Webpage](#)

Dr. Prabhat Jaiswal

Associate Professor,
Department of Physics,
IIT Jodhpur, INDIA

[Email](#) [Webpage](#)

Dr. Ananya Debnath

Professor,
Department of Chemistry,
IIT Jodhpur, INDIA

[Email](#) [Webpage](#)