Suhas Mahesh

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I am a materials physicist whose work unites computation, ML and experiments for pressing materials discovery challenges in photovoltaics, catalysis and corrosion resistance.

Employment

Sep 2021– **Acceleration Consortium Fellow**
Senior Schmidt Science Fellow link
Department of Materials Science, University of Toronto
PI: Prof. Jason Hattrick-Simpers

Education

2016–2021 **Doctor of Philosophy in Condensed Matter Physics** University of Oxford
Rhodes Scholarship link
Supervisor: Prof. Henry Snaith, FRS link
Optical and Electronic Studies of New Materials for Multijunction Photovoltaics link
Thesis award (2021) from MPLS Division, University of Oxford

2012–2016 **Bachelor of Science in Physics** Indian Institute of Science
With highest honors

2016 **Research Intern** Italian Institute of Technology
Inkjet Processed Semiconductors link

2015 **Research Intern** University of Groningen, Netherlands
Carbon Nanotube based FETs link

Published Articles and Book Chapters

Please see my Google Scholar

Patents

Pending Snaith, H. J and Mahesh, S. **Multi-Junction Optoelectronic Device Comprising Device Interlayer**, International Application Number: PCT/GB2019/053550 link

Grants, Fellowships and Prizes

2024 Catalyst Interdisciplinary Grant ($10,000) (co-PI with Sebastian Musslick) link

2023	Software engineering grant (1 FTE-year), Virtual Institute for Scientific Software link
2023	Acceleration Consortium Fellowship ($110,000) link
2022	Optoelectronics Materials Discovery Grant, Schmidt Futures ($42,000) link
2021	**Schmidt Science Fellowship** ($200,000) link
2021	**PhD Thesis Award, MPLS Division, University of Oxford**
2019	Best Early Career Presentation, SUNRISE Solar Symposium (London)
2019	Best Early Career Presentation, Indo-UK Optoelectronics Meet (Pune, India)
2016	**Rhodes Scholarship** ($150,000)

Recent Invited Talks

2023	ML-guided Discovery of Two-Dimensional Perovskites (invited)	Synthace
2023	Beating the Negative Data Problem in Materials Science (invited)	Rhodes Trust
2022	Thermodynamics of Optoelectronic Devices (invited)	University of Oxford
2021	Computational Modelling of Solar Absorbers (invited)	IISER Berhampur
2021	Spatial Inhomogeneities in Perovskite Photovoltaics (invited)	SUNRISE Symposium
2020	Origin of Phase Instabilities in Perovskite Semiconductors (invited)	Oxford PV

Teaching Experience

Semiconductor Devices, Organic Electronics , Solar Cell Thermodynamics, Condensed Matter Physics (TA), Analogue Electronics (TA). More detailed teaching history can be provided upon request.

Outreach and Community

2023	Selector for Rhodes Scholarship	Rhodes Trust
2021	Selector for the RISE Award link	RISE
2019	Conference for Undergraduate Women in Physics (co-organiser)	Institute of Physics
2019	Stargazing Science Festival (outreach exhibit) link	University of Oxford
2018	Oxford Science Festival (outreach exhibit) link	University of Oxford
2014-16	Head of Scholarships, Notebook Drive link Notebook Drive is an NGO working to improve access to primary education in rural India.	Notebook Drive

Other Interests

2023–	Co-creator of ambuda.org link Breakthrough digital library of Sanskrit with intelligent ML-based tools
2024	*How to Love in Sanskrit* (HarperCollins; co-authored with Anusha Rao) Compendium of 3000 years of Sanskrit wisdom on love, in English translation