Henry James Snaith
Date of Birth: 1978

Education

10/2001 – 10/2004 **PhD - University of Cambridge**, Cambridge, Cambridgeshire, UK, Physics, Supervisor: Prof Sir Richard H. Friend
10/1997 – 6/2001 **MSci - University of Bristol**, UK, Physics – 1st Class Honours Degree

Research Experience

University of Oxford, UK, Department of Physics-Condensed Matter Physics sub-department
06/2021-present The Binks Professor of Renewable Energy
10/2015-06/2021 Professor of Physics, Group Leader; Photovoltaics and Optoelectronics device group
10/2012 -9/2015 Reader in Physics, Group Leader: ; Photovoltaics and Optoelectronics device group
10/2007 – 9/2012 *RCUK Fellow/Lecturer in Photovoltaics,* Group Leader, *Senior Research Fellow,* Jesus College
University of Cambridge, **UK,** Department of Physics
10/2006 – 10/2007 *Junior Research Fellowship,* Clare College
École Polytechnique Fédérale de Lausanne, Switzerland, Department of Physical Chemistry
12/2004 – 10/2006 *Post-doctoral Research Fellowship* funded by the MOLYCEL European project under Prof. Michael Grätzel
University of Cambridge, **UK**, Department of Physics
10/2004-12/2004 *Post-doctoral Research* funded under the NAIMO European Project under Prof. Sir Richard H. Friend
University of Cambridge, **UK** Department of Physics
10/2001 – 10/2004 *PhD* under Prof Sir Richard H. Friend (viva: 11-11-2004)
University of Bristol, **UK** Department of Physics
10/2000 – 5/2001 *Research Project (4th Year)* under Prof. Robert Richardson

Publications and Patents

Snaith has published over 480 peer-reviewed papers in leading journals with many tens of publications in the broadest disseminated journals such as Science, Nature and Nature family Journals. He has been cited over 138,000 times and an h-index 154 (web of science). He has been a highly cited researcher since 2016 in the fields of Physics, Chemistry, Materials Science and Environment and Ecology, named as a "Clarivate Citation Laureate" in Chemistry in 2017 and named at the top of the list of the "World's most influential scientific minds" in 2016 and 2017. Snaith is also a named inventor on over 40 patent families and over 300 granted patents in the area of optoelectronic devices and semiconductor materials, with the majority being related to perovskite semiconductors and solar cells.

Conferences

HJS has present **Invited Talks** and **Plenary Lectures** at 100's of conferences and meetings, these include the Photovoltaics Specialist Conference (PVSC), EU-PVSC, *Materials Research Society (MRS) spring and fall meetings, American Chemical Society (ACS) meetings, Hybrid Organic Photovoltaics (HOPV) conferences; Semiconductor Sensitized Solar Cells; Gordon Conferences, European MRS; ICMAT*; NEDO Meeting Japan; Rank Prise Funds Meeting, UK; IUMRS, Taipei, Taiwan; *ICTP Trieste*, Italy; and the *European Optical Society.*
Organized conferences: HJS has co-organized a number of international conferences. Most notably, due to the rapid rise in metal halide perovskite research he cofounded the annual "Perovskite Solar Cell and Optoelectronics (PSCO) conference", first held in Lausanne, Switzerland in 2015, which has had its subsequent meetings in Genoa, Italy (2016), and

Oxford (2017,2023), Lausanne (2018,2019) and Perugia, Italy (2024). Over 400 participants were attracted to the each of these meetings. Other conferences he has co-organized are The HOPV16 international conference on hybrid and organic PV, Swansea UK. The SSSC14 conference, Oxford UK, E-MRS 2013 Strasbourg, Fall MRS 2010 Boston, USA, the Japanese UK Dye-sensitized and Organic PV conference (JUDO-PV 2011) UK, HOPV13, and the EU SANS and MESO projects International Winterschools, Switzerland.

Awards, honours and accolades

2025 NIMS Award in Materials Science
2024 Fred Kavli Distinguished Lectureship in Materials Science, Materials Research Society
2023 World Young Scientist Summit Sustainable Development Goal Award Winner
2022 Rank Prize in Optoelectronics
2021 Leigh Ann Conn Prize in Renewable Energy
2020 Becquerel Prize – for merits in the field of photovoltaic solar energy
2018 Blavatnik Award for Young Scientists in the UK
2017 Named 1st Equal in Clarivate Analytical world's "Hottest Researchers"
2017 James Joule Medal and Prize, Institute of Physics
2017 Clarivate Citation Laureate
2017 Royal Society Kavli Medal and Lecture
2016 EU-40 Materials Prize, EMRS early carer award
2016 Named as the 2nd Most Influential Scientific Mind by Thomson Reuters
2015 Elected as Fellow of the Royal Society
2015 IEEE PVSC Young Professional Award
2014 Materials Research Society Outstanding Young Investigator Award 2014
2013 Named as one of "Nature's 10" people who mattered most in 2013
2012 Paterson Medal and Prize, Institute of Physics Early Career Award

Funded Research Programmes

Snaith has been an investigator on over £80M of grant value, (28 EPSRC (~£51M), 11EU (~£30M equivalent) and 3US grants (~£1M)), with present EPSRC portfolio of active grants being £8.3M as PI. The components awarded to his research group amounting to over £35M equivalent. Many of the grants are collaborative research projects, with experts in the areas of synthetic chemistry, advanced spectroscopy and theoretical calculations, essential for his interdisciplinary research. On-going collaborations exist through the UK projects, and through funded bi-national projects: HJS has or had an EPSRC-NSF award (EP/H046887/1), an EPSRC-NST award (EP/G049653/1), and is part of and EPSRC-India award (EP/H040218/1). In addition, Snaith has coordinated four EU projects, NMP-small FP7 projects "SANS" (€5M), and "MESO" (€4M), an H2020 Project, PerTPV (€5M) and Horizon Europe projects NEXUS (€5M). He has also held an ERC starting grant HYPER (€1.9M), has been part of Programme Grants with Cambridge University and Imperial College (£5M EP/M005143/1),with Swansea and Imperial (£6M, EP/T028513/1) a prosperity partnership project (£2.2 + 2.4M EP/S004947/1 EPSRC and Oxford PV) and leads a programme grant, (£7.6M EP/X038777/1). In addition to these UK and European grants, Snaith actively collaborates with a number of researcher groups in the US and has a number of funded US projects from the ONR (Snaith, Jen) and (Snaith, Ginger, Marder) and from the AFORS (Snaith, Marder). One notable achievement is the raising of a ~3M grant to install a national thin film cluster deposition facility, which positions Oxford centrally in the global research on novel materials for optoelectronics.

Teaching Duties

Over the first 5 years of his appointment as an RCUK Fellow, Snaith undertook mounting teaching activities to finish with a full tutorial fellow and departmental teaching load. In 2012/13, upon completion of the RCUK Fellowship, Snaith transferred to a university lecturer non-tutorial fellow, in order to focus upon departmental teaching, scientific research and

innovation activities. His current teaching duties include: Laboratory Demonstration, a Lecture Series in Optoelectronics, Advanced Experimental Techniques Lecture, Undergraduate Masters Student Project Supervision (2 per year), Graduate DPhil Supervision (currently 15 DPhil Students).

Professional Associations

Fellow of the Royal Society
Member of the Institute of Physics
Member of the Materials Research Society
Editorial Board for Materials Horizons, RSC Journal
Editorial Advisory Board for Energy and Environmental Science, RSC Journal
Editorial Advisory Board for Solar Rapid Research letters, Wiley

Reviewing Activities

Professor Snaith regularly reviews for many of the main journals which publish in his field, including Nature, Science, Energy and Environmental Science, Joule, Nature Family Journals, Wiley Journals such as Advanced Materials, ACS journals such as JACS, ACS Energy Letters and Nanoletters.

Innovation

Henry Snaith is a co-founder, Director and Chief Scientific Officer (CSO) of Oxford PV Ltd, founded in 2010 to commercialise the photovoltaic research from his university group. Oxford PV is commercialising his revolutionary perovskite-on-silicon tandem solar technology and to-date has secured over £150M of equity investment. The company has built and ramped up the world's first perovskite-on-silicon tandem cell production line, and has shipped its first commercial modules in 2024 and supplies cells and modules to a number of customers. This technology promises a step improvement in efficiency, and hence a step reduction in cost of main-stream high volume PV. In 2016 Snaith co-founded, Helio Display Materials to commercialise metal halide perovskites for light emission applications. The company is based in Oxford, UK and is developing highly emissive and stable colour conversion materials to enable full-colour super bright micro-displays, primarily for augmented-reality/virtual-reality applications.

Outreach, public and policy engagement

Henry Snaith regularly engages with the public press and media to help educate and inspire about the prospects for renewable energy and solar (www.bbc.co.uk/programmes/m000r3nn) (https://www.re-tv.org/articles/refining-solar) (https://www.bbc.co.uk/sounds/play/m002hb9f). He is also passionate about inspiring school aged children, for instance his partaking on "Aspire to Engineer" (https://www.big-ideas.org/aspire-to-engineer-videos/), and regularly visits local schools, delivers public lectures and participates in departmental outreach. He also encourages and enables his research team to partake in outreach, by providing the resources and tools (equipment for demonstrating solar photovoltaics) funded from his EPSRC and EU research projects. Henry Snaith engages regularly with government and the Department of Business, Energy and Industrial Strategy (BEIS), usually associated with discussions about how the UK government can assist early stage technologies companies and growth of manufacturing business in the UK and Europe, and to extol the opportunity for investing in science and technology in order to accelerate and solve the challenges associated with the energy transition. He also has been part of a specialist panel for the Government office for Science to make assessment of the drivers of technology needs for energy related technologies.

10/10/2025