

# PROF. TAMSIN A. MATHER

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## Post-doctoral employment (*Maternity leave: June-December 2007 and January-July 2010*)

2014–present: **Professor of Earth Sciences**, University of Oxford.

2006–2014: **Lecturer/Academic Fellow** in Physics & Chemistry of the Earth and Environment, Dept of Earth Sciences, University of Oxford & Fellow, University College.

2005–2009: **Royal Society Dorothy Hodgkin research fellow**, awarded at Cambridge and moved to Oxford (Volcanic volatile emissions: from lithosphere to atmosphere)

2005: **NERC fellow Parliamentary Office of Science and Technology** (Report title: Carbon capture and storage)

## Education and Qualifications

2001–2004: **Ph.D.**, Dept of Earth Sciences, University of Cambridge, 'Near-source chemistry of tropospheric volcanic plumes'. NERC funded. **Awarded December 2004.**

1999–2000: **M.Phil.** (History and Philosophy of Science), University of Cambridge. **Distinction.**

1995–1999: **M.Sci.** Chemistry (Natural Sciences), University of Cambridge. **First class.**

## Recent honours and Awards

2018 **Royal Society Rosalind Franklin Award and Lecture**

2018 Royal Astronomical Society Group Achievement Award in Geophysics for COMET

2015 **UK Mineralogical Society Distinguished Lecturer** academic year 2015/6.

2014 **Lloyds Science of Risk Prize** (for Biggs et al., 2014 paper)

2010 **Philip Leverhulme prize** (£70k) – national award for outstanding early-career researchers

2008 **UNESCO/L'Oréal UK & Ireland Women in Science** (£15k) –early-career researchers

## Prior employment experience

2001 **European Commission**, Brussels. 3-month internship, DG Environment.

2000 **BBC Science** (London) 8-week internship, 1999 **BBC Natural History** 6-week internship.

## Publications

Over 130 publications in peer-reviewed international journals/monographs, listed: <http://www.earth.ox.ac.uk/mather> (>3300 citations, >440 in 2016 & 2017, **h-index 39/36/34** Google Scholar/Scopus/WoS)

## Examples of professional activities and panel membership

- Elected **Director**, the Geochemical Society, USA (2017-2019)
- **NERC Science Board** (2017-2019)
- 2014-present: **Editor *Earth and Planetary Science Letters***
- American Geophysical Union (AGU)'s Committee on International Participation (2014–2019)
- **Management committee** 5-year £8M programme (*Volatiles, Geodynamics & Solid Earth Controls on the Habitable Planet*)
- **Deputy director** (volcanoes) NERC Centre for Observation & Modelling of Earthquakes, Volcanoes & Tectonics (COMET) executive (2013-)
- **External member professorial appointments/promotions committees** (2018: Munich, Germany; 2017 St Andrews, Scotland; 2016: Utrecht, Netherlands)

## Examples of recent Strategy and Policy work

- Advised Foreign and Commonwealth Office in support of their counter proliferation efforts (July 2011, April 2016)
- Hosted and presented to the Japanese Council for Science, Technology and Innovation, Cabinet Office, Government of Japan, January 2016
- A short [video](#) about the broader societal impact of our work on mercury
- Invited participant UK Government Cabinet Office workshop and expert elicitation on 'Effusive Eruption Source Characterisation' May 2012, London.
- Organised a 2-day international workshop on *Natural Emissions, Global Change and the Global Mercury Cycle* in Oxford, to produce a policy briefing (for the UK government and UNEP) on

unknowns and uncertainties in the natural mercury inventory (May 2011) in preparation for the Minamata Convention

### Recent funding

- 2016:** - **Co-I NERC Global Challenges** 'Unseen but not unfelt: resilience to persistent volcanic emissions (UNRESP). Case study from Masaya volcano, Nicaragua' - £151k  
- **Co-I NERC Global Challenges** 'Harnessing 'citizen science' to reinforce resilience to environmental disasters: creating an evidence base and community of practice' - £159k
- 2015:** - **Co-I NERC urgency grant** 'Impacts of the Calbuco eruption, Chile' - £64k [completed].
- 2014:** - **Co-leader NERC Theme Action consortium** 'Mantle volatiles: processes, reservoirs and fluxes' £1.7M (Oxford)  
- **Oxford PI and WP leader NERC large grant** 'Rift Volcanism: Past, Present and Future' £443k (Oxford) – led by Whaler (Edinburgh) and Biggs (Bristol)
- 2012:** - **Co-I NERC Standard Grant** 'Spectrally High resolution Infrared measurements for the characterisation of Volcanic Ash (SHIVA): a new way to study volcanic processes' - £410k [completed].  
- **Co-I NERC Theme Action consortium** 'Strengthening resilience in volcanic areas (STREVA)' - £290k (Oxford)
- 2011:** - **PI NERC Scoping study** (Mantle control on a habitable planet) for workshop organisation - £36k [completed].  
- **Co-I, NERC urgency grant**, (Capturing a new episode of unrest at Santorini volcano, Greece) - £52k [completed].

### Mentoring, student supervision and teaching

- I currently mentor 1 postdoctoral scientist.
- Supervision of PhD (11 completed, 6 current) and 4<sup>th</sup> year undergraduate masters student projects (23 completed).
- Undergraduate lecturing 1<sup>st</sup> year Chemistry and 3<sup>rd</sup> and 4<sup>th</sup> year Volcanology.

### Recent examples of international invited talks and convening

- 2018:** - **Invited keynote speaker:** Gordon Research Conference 'Deep Carbon Science in the Context of Geologic Time' Rhode Island, USA  
- **Invited keynote speaker:** AGU Chapman conference on large silicic systems, Chile
- 2017:** - **Science Program Committee**, Deep Carbon Observatory International Science Meeting, Scotland
- 2016 & 2019:** - **Theme Chair** Volcanoes, Goldschmidt 2016, Yokohama, Japan and 2019 Barcelona, Spain  
- **Invited speaker** EGU General assembly, Vienna, Austria 2016
- 2015:** - **Invited speaker**, Smithsonian Institute, National Museum of Natural History, Washington DC, USA, October 2015
- 2014:** - **Invited speaker and session convener** Fall AGU meeting San Francisco USA.  
- **Invited speaker**, Ludwig-Maximilians-Universität/Technische Universität München, Munich, Germany, joint seminar series 'Frontiers in Earth sciences', 27 June 2014.

### Outreach and press engagement - recent highlights include:

- Expert contributor [Mars Diary](#) (free primary STEM programme, UK Space Agency) April 2018
- BBC Radio 4 '[The Infinite Monkey Cage](#)' February 2018
- Oxford Science Blog: [Living with volcanic gases](#), January 2018
- BBC Radio 4 '[The Life Scientific](#)' May 2017
- Science essay for children's book '[George and the Blue Moon](#)' Lucy and Stephen Hawking, 2016
- BBC World Service [The Forum](#), July 2016
- BBC Radio 4, [Costing the Earth](#), March 2015,
- NASA [video](#) about our work on the effects of volcanic emissions on clouds
- London Volcano - public event at the Natural History Museum, London, 9-13 June 2014. >2000 school children visited, >15,000 visitors to whole event. 8000 page views on blog site (to which I contributed a blog on volcanic lightning)
- Soapbox Science [event](#), South Bank London (22 July)
- BBC audio [slideshow](#) and talk at Cheltenham Science Festival (June 2011)