
Curriculum Vitae - Professor Marjorie Wilson

Marjorie Wilson has over 30 years research experience in studying the petrogenesis of within-plate magmatism, with a particular focus on Europe and the Mediterranean region. She is internationally recognized for her ability to integrate geochemical and geophysical data in the development of geodynamic models to explain the processes responsible for magma generation, and has published over 70 papers and one book "*Igneous Petrogenesis*" in 1989. Marjorie has collaborated closely with the seismic tomography group in Strasbourg, France, since the early 1990s and co-leads an ILP (International Lithosphere Program) project on upper mantle plumes. She has worked with the Norwegian hydrocarbon industry on the interpretation of 3-D seismic data from the Atlantic continental margins to deduce the volcanic architecture. Since 2007 she has been involved in a collaborative project with the Chinese Academy of Sciences in Beijing (collaboration with Zhengfu Guo) to study the magmatism associated with the India-Asia collision zone and the evolution of the Tibetan Plateau. From 2008 she has also collaborated with colleagues in the Institute for Atmospheric Sciences on SO₂ emissions from Icelandic volcanoes. During 2010 she was a member of a Government Strategic Advisory Committee during the Eyjafjallajökull eruption.

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Education and Qualifications

1970-1973	BA Geology, First Class Honours, St. Hilda's College, Oxford University
1973-1974	MA in Geology, University of California, Berkeley, USA
1974-1976	PhD Leeds University
1994-1999	Master of Business Administration. Open University
1999	MA, Oxford University

Employment History

At Leeds University, School of Earth & Environment

<i>Current Position:</i>	Professor of <i>Igneous Petrogenesis</i> (since August 1998)
	Pro-Dean for Research (since August 2006)
<i>Previous Positions:</i>	Senior Lecturer in Igneous Petrology (1991- 1998)
	Lecturer in Igneous Petrology (1978 - 1991)
	NERC Post-doctoral Research Fellow (1976 - 1978)

Honours & Awards

- *Royal Society-Leverhulme Trust Senior Research Fellowship* - 1995-96.
- *Collins Award, Ottawa University, Canada* -January 1996 - Distinguished Lecturer
- *Foreign Member of the Norwegian Academy of Science and Letters* - May 1998
- *Swedish Natural Science Research Council* – Distinguished Lecturer - May 1999
- *Birkbeck College, University of London,* - Distinguished Lecturer 1999
- *Honorary Doctor of Philosophy, Uppsala University, Sweden* - January 2000
- *Guest Professor, China University of Geosciences, Beijing, China, 2003-2006*
- *Coke Medal, Geological Society of London, May 2006*

Editorial Responsibilities

Executive Editor, Journal of Petrology since 1994

Services to the UK Community

2003-2007: Member of the NERC Science & Innovation Strategy Board (SISB).
 2003-2007: Chair the NERC Services & Facilities Review Group
 2007- present: Member of the NERC Council

RECENT PUBLICATIONS (2005-2011)

Published over 80 papers, 1 single author book (*Igneous Petrogenesis; over 1480 citations since 1989*) and 3 edited volumes since 1975.

h-index 24; **Citations:** 1689 (excluding *Igneous Petrogenesis*)

GUO, Z., & **WILSON, M** (in review) The Himalayan leucogranites: Constraints on the nature of the source region and the tectonic collapse of the Himalayas. *Gondwana Research*.

SCHMIDT, A., OSTRO, B., CARSLAW, K., **WILSON, M.**, THORDARSON, T., MANN, G. & SIMMONS, A. (in review) Excess mortality in Europe following a future Laki-style Icelandic eruption. *Proceedings of the National Academy of Sciences (PNAS)*.

NIU, Y, **WILSON, M**, HUMPHREYS, ER & O'HARA, MJ (2011) On the sources of intra-plate ocean island basalts, *Journal of Petrology* (in press).

DAVIDSON, J & **WILSON, M** (2011) Differentiation and source processes at Mt. Pelee and the Quill: Active volcanoes in the Lesser Antilles Island Arc, *Journal of Petrology*. doi:10.1093/petrology/egq095.

BIANCHINI, G, BECCALUVA, L, BONADIMAN, C, NOWELL, GM, PEARSON, DG, SIENA, F & **WILSON, M** (2010) Mantle metasomatism by melts of HIMU piclogite components: new insights from Fe-Iherzolite xenoliths (Calatrava Volcanic District, central Spain), In: Coltorti, M; Downes, H; Gregoire, M; O'Reilly, SY (Ed) *Petrological Evolution of the European Lithospheric Mantle*, Special Publication **337**, Geological Society, pp.107-124.

SCHMIDT, A, CARSLAW, KS, MANN, GW, **WILSON, M**, BREIDER, TJ, PICKERING, SJ & THORDARSON, T (2010) The impact of the 1783-1784 AD Laki eruption on global aerosol formation processes and cloud condensation nuclei, *ATMOS CHEM PHYS*, **10**, pp.6025-6041. doi:10.5194/acp-10-6025-2010.

CORTÉS, J.A., JOSÉ LUIS PALMA, J.L & **WILSON, M.** (2007) Deciphering magma mixing: The application of cluster analysis to the mineral chemistry of crystal populations. *Journal of Volcanology and Geothermal Research* 165: 163-188.

GUO, Z., **WILSON, M** & LIU, J. (2007) Post-collisional adakites in south Tibet: products of partial melting of subduction-modified lower crust. *Lithos* 96, 205-224 (2007).

GUO, Z, **WILSON, M.**, LIU, J & MAO, Q. (2006) Post-collisional potassic and ultrapotassic magmatism of the northern Tibetan Plateau: Constraints on characteristics of the mantle source, geodynamic setting and uplift mechanisms. *Journal of Petrology* 47: 1177 – 1220.

BIANCHINI' G., BECCALUVA' L., BONADIMAN, C., NOWELL, G., PEARSON' G., SIENA' F. & **WILSON, M.** (2006) Evidence of diverse depletion and metasomatic events in harzburgite-Iherzolite mantle xenoliths from the Iberian plate (Olot, NE Spain): Implications for lithosphere accretionary processes. *Lithos*, 94: 25-45.

WILSON, M. & DOWNES, H. (2006) Tertiary-Quaternary intra-plate magmatism in Europe and its relationship to mantle dynamics. In: Gee, D. & Stephenson, R. (eds.) Special Publication of the Geological Society of London, Volume 32. Volume 32. pp 147-166.

- STEPHENSON, R., YEGOROVA, BRUNET, M-F., STOVBA, S., **WILSON, M.**, STAROSTENKO, V., SAINTOT, A. & KUSZNIR, N. (2006) Late Palaeozoic intra- and pericratonic basins on the East European Craton and its margins. Geological Society, London, Memoirs v. 32; p. 463-479.
DOI: 10.1144/GSL.MEM.2006.032.01.29
- LUSTRINO, M. & **WILSON, M.** (2006) The Circum-Mediterranean anorogenic Cenozoic igneous province. *Earth Science Reviews* 81, 1-65.
- CORTÉS, J. A., **WILSON, M.**, CONDLIFFE, E. & FRANCALANCI, L. (2006) The occurrence of forsterite and highly oxidising conditions in basaltic lavas from Stromboli volcano, Italy. *Journal of Petrology* doi: doi:10.1093/petrology/egl012
- CORTÉS, J. A., **WILSON, M.**, CONDLIFFE, E., FRANCALANCI, L. & CHERTKOFF, D. (2005) The evolution of the magmatic system of Stromboli volcano during the Vancori period (26-13.8 ky) *Journal of Volcanology and Geothermal Research*. 147, 1-38.

Recent edited volumes

- BECCALUVA, L., BIANCHINI, L. & **WILSON, M.** (2011) *Volcanism and Evolution of the African Lithosphere*, Geological Society of America Special Paper , **478**, Geological Society of America (in press)
- BECCALUVA, L., BIANCHINI, L. & **WILSON, M.** (2007) Cenozoic volcanism in the Mediterranean Area. *The Geological Society of America, Special Paper* 418, pp 350.

Recent Research Grants

- Royal Society China Research Grant: 2003-2009; jointly with the Chinese Academy of Sciences, Beijing; £18,000
- European Commission –*Framework V Energy Environment & Sustainable Development programme (2002-2005)*: €RUPT project. This multi-disciplinary project, co-ordinated by Durham University, involved the research expertise of over 30 scientists based in seven project teams in five European countries (UK, Italy, Spain, Germany and Ireland). Its aim was to improve our understanding of the eruptive behaviour of key European volcanoes (Teide, Vesuvius/Campi Flegrei, Stromboli) for the benefit of volcano observatories and civil defence authorities. Leeds share 135,000€.
- European Commission - *Training & Mobility of Researchers (TMR) Network 1997-2000: Permo-Carboniferous magmatism and the geodynamics of rifting in Europe*. 1.08 million €; involved partnership with research teams in Norway (University of Oslo and a consortium of Norwegian oil companies), Netherlands (Vrije Univerity, Amsterdam), Germany (GEOMAR, Kiel) and Spain (MNCN, Madrid). Leeds was the Network Coordinator.