

CURRICULUM VITAE

C. Mary R. FOWLER

QUALIFICATIONS

- 1976 PhD, Cambridge University
1972 B.A. Hons, 1st class, Mathematics, Cambridge University

ACADEMIC AWARDS AND PRIZES

- 1996 'Prestwich Medal', The Geological Society, awarded for *'The Solid Earth'*
1972 'May Smithell's Prize', Girton College, University of Cambridge

EMPLOYMENT

- 2003 – 2008 Professor of Geophysics, Royal Holloway, University of London, Head of Earth Sciences (formerly Geology) Department
2002-2003 Senior Lecturer, (80% time), Royal Holloway, University of London
Head of Geology Department
2000-2002 Senior Lecturer, (50% time), Royal Holloway, University of London
1998-2000 Lecturer B, (50%-time), Royal Holloway, University of London
1992-1998 Lecturer B, (40%-time), Royal Holloway, University of London
1991-2001 Adjunct Full Professor (honorary), University of Saskatchewan, Canada
1992 Invited Visiting Professor, University of Rennes, France
Note that from 1978 to 1992 I was primarily at home with my young children. Much of my University work was honorary.
1983-1991 Professional Research Associate (honorary), University of Saskatchewan
1982-1983 Assistant Professor (term), University of Saskatchewan
1981-1982 Professional Research Associate, University of Saskatchewan
1979-1981 Research Associate (honorary), Bullard Laboratory, Dept. Earth Sciences, Cambridge University.
1977-1978 Royal Society European Exchange Fellow, at Institut für Geophysik, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland
1969 Junior Technician, H.H. Wills Physics Laboratory, University of Bristol

EXTERNAL RESPONSIBILITY

- 2005-2008 Member and Deputy Chair HEFCE Research Assessment Exercise RAE2008, Sub-Panel E17 "Earth Systems and Environmental Science"
2007 NERC-IODP Review Panel member
2006-2008 Royal Society Industry Fellowships Panel Member
2006-2010 Governing Board of the School of Cosmic Physics in the Dublin Institute for Advanced Studies (DIAS)
2000-2001 HEFCE Research Assessment Exercise RAE2001, Member Panels 20 & 21: "Earth Sciences and Environmental Sciences"
2003-2008 Finance Committee Member, Royal Astronomical Society
2000-2002 Vice-President, Royal Astronomical Society
1998-2001 Council member, Royal Astronomical Society
1997-2002 Member, Bureau of the International Lithosphere Program ILP, (ICSU, IASPEI, IUGG)
1997-2000 NERC Earth Sciences Peer Review Committee Member
2004 External Assessor, City University Hong Kong, International Research Assessment Exercise - "Earth Sciences"
2004 International Assessor, University of Alberta, Canada. Earth and Atmospheric Sciences External Review
2002-2008 Member, CHUGD (Chairs University Geoscience Departments)
2000-2003 Member, SEIS-UK Management Board (NERC JIF)

2000	Member, NERC Fellowships interview panel
1999	Member, NERC Micro-to -Macro grant review committee
1998-2000	NERC ODP grant review committees
1998	Member, NERC Senior Fellowships Interview Panel
1998	Member, NERC Services Review Group, review of NSS (NERC Scientific Services)
1997-1998	Committee member, Royal Astronomical Society
1994-1999	Member, NERC BRIDGE (British Mid-Ocean Ridge) Steering Committee
1993-1994	Member, NERC Geological Sciences Research Grants and Training Awards Committee
1992	Board of Directors of "Sask. Energy", Canadian Provincial Crown Corporation in the natural gas sector

BOOKS

- Fowler, C.M.R.**, 2005, *The Solid Earth: an introduction to global geophysics*, 2nd edition, Cambridge University Press, 685 pp. (2nd reprint 2006. Instructors material on CUP website)
- Fowler, C.M.R.**, Ebinger, C.J. & Hawkesworth, C.J. eds., 2002. *The Early Earth: physical, chemical and biological development*, Geol. Soc. Spec. Pub. 199, 352pp.
- Fowler, C.M.R.**, 1990, *The Solid Earth: an introduction to global geophysics*, Cambridge University Press, 472pp.
- Nisbet, E.G. & **Fowler, C.M.R.**, eds. 1988, *Heat, Metamorphism and Tectonics*, Mineralogical Association of Canada Short Course, **14**, 319pp.

PAPERS

- Fowler, C.M.R.**, Stead, D., Pandit, B.I., Janser, B.J. & Nisbet, E.G., 2005. A database of physical properties of rocks from the Trans-Hudson Orogen of northern Saskatchewan and Manitoba, Canada, *Can. J. Earth Sci.* **42**, 555-572.
- Grassineau, N.V., Appel, P.W.U., **Fowler, C.M.R.** & Nisbet, E.G. 2005. Distinguishing biological from hydrothermal signatures via sulphur and carbon isotopes in Archaean mineralizations at 3.8 and 2.7 Ga, in "*Mineral Deposits and Earth Evolution*", eds. McDonald, I. et al., Geol. Soc. Spec. Publ. **248**, 195-212.
- Mareschal, J.C., Jaupart, C., Rolandone, F., **Fowler, C.M.R.**, Bienfait, G., Carbonne, C. & Lapointe, R. 2005, Heat flow, thermal regime and rheology of the lithosphere in the Trans-Hudson Orogen, *Can. J. Earth Sci.* **42**, 517-532.
- Nisbet, E.G. & **Fowler, C.M.R.**, 2004. The Early History of Life, *Treatise on Geochemistry Vol. 8, Biogeochemistry*, Academic Press, 1-39.
- Maguire, P.K.H., Ebinger, C.J., Stuart, G.W., Mackenzie, G.D., Whaler, K.A., Kendall, J-M., Khan, M.A., **Fowler, C.M.R.**, Klemperer, S.L., Keller, G.R., Harder, S.H., Furman, T., Mickus, K., Asfaw, L. & Abebe, B., 2003. Geophysical Project in Ethiopia studies continental break-up. *EOS, Trans., Am. Geophys. Un.* **84(35)**, 337, 342-343.
- Maguire, P.K.H., White, R.S., Priestley, K., Ebinger, C.J., **Fowler, C.M.R.**, Stuart, G.W., England, R.W., Denton, P., Brisbourne, A. & Myers, A., 2002. A new dimension for UK seismology. *Astronomy & Geophysics*, 42(6), 23-25.
- Grassineau, N.V., Nisbet, E.G., **Fowler, C.M.R.**, Bickle, M.J., Lowry, D., Chapman, H.J., Matthey, D.P., Abell, P., Yong, J. and Martin, A., 2002. Stable isotopes in the Archaean Belingwe belt, Zimbabwe: evidence for a diverse prokaryotic mat ecology, in "*The Early Earth: Physical, Chemical and Biological Development*", eds. Fowler, C.M.R. et al., Geol. Soc. Spec. Pub. 199, 309-328.
- Grassineau, N.V., Nisbet, E.G., Bickle, M.J., **Fowler, C.M.R.**, Lowry, D., Matthey, D., Abell, P. and Martin A., 2001. Antiquity of the biological sulphur cycle: evidence from 2.7 Ga rocks of the Belingwe Belt, Zimbabwe, *Proc. R. Soc. Lond. B*, **268**, 113-119.

- Fowler, C.M.R.**, 2000. Earth structure, *The Oxford Companion to the Earth*, Oxford University Press, Oxford, 276-280.
- Mello, S., Cann, J.R. & **Fowler, C.M.R.**, 1999. Anomalous mantle at 45°N Mid-Atlantic Ridge?, *J. Geophys. Res.* **104**, 29,335-29,349.
- Nisbet, E.G. & **Fowler, C.M.R.** 1999. Archaean metabolic evolution of microbial mats, *Proc. R. Soc. Lond. B* **266**, 2375-2382.
- Fowler, C.M.R.** & Tunncliffe, V., 1997, Hydrothermal vent communities and plate tectonics, *Endeavour*, Elsevier, **21** (4), 164-168.
- Lucassen, F., **Fowler, C.M.R.** & G. Franz, 1996, Formation of magmatic crust at the Andean continental margin during the Early Mesozoic: a geological and thermal model of the North Chilean Coast Range, *Tectonophysics.*, **262**, 263-279.
- Fowler, C.M.R.**, Snyder, D.B. & Keen, C.E, 1996, The origin of intracratonic basins: interdisciplinary seismic studies of Hudson Bay, in “*BIRPS 1996, Status, plans and opportunities*”, Natural Environment Research Council.
- Pickup, S.L.B., Whitmarsh, R.B., **Fowler, C.M.R.** & Reston, T.J., 1996, Insight into the nature of the ocean-continent transition off west Iberia from a deep multichannel seismic reflection profile, *Geology*, **24**, 1079-1082.
- Tunncliffe, V., **Fowler, C.M.R.** & McArthur, A., 1996. Biogeographic diversity of fauna at mid-ocean ridge hot vents and at cold seeps, in MacLeod, C.J., Tyler, P. and Walker, C.L. eds, *Tectonic, Magmatic and Hydrothermal Segmentation of Mid-Ocean Ridges*, Geol. Soc. Lond. Spec. Publ. No **118**, 225-238.
Note, see also "Tubeworm Travels" an article in 'Earth' (a North American published science magazine) June 1997, p 48-53, written about the Tunncliffe & Fowler vent/plate tectonics work (Tunncliffe & Fowler 1996; Tunncliffe et al. 1996). Also BBC Radio 4 interview on hydrothermal vents.
- Nisbet, E.G. & **Fowler, C.M.R.**, 1996a. The hydrothermal imprint on life: Did heatshock proteins, metalloproteins and photosynthesis begin around hydrothermal vents?, in MacLeod, C.J., Tyler, P. and Walker, C.L. eds, *Tectonic, Magmatic and Hydrothermal Segmentation of Mid-Ocean Ridges*, Geol. Soc. Lond. Spec. Publ. No **118**, 239-251.
- Nisbet, E.G. & **Fowler, C.M.R.** 1996b. Some liked it hot, *Nature*, **382**, 404-405.
- Fowler, C.M.R.** 1996. Response to Prestwich Medal citation, *Geoscientist*, Geological Society, **6**, No. 5, 24-5.
- BRIDGE (British Mid-Ocean Ridge) Workshop Report No. 4: “*Dynamics of Vent Ecosystems (DOVE)*”, with other authors, 1996.
- Tunncliffe V. & **Fowler, C.M.R.** 1996. Influence of sea-floor spreading on the global hydrothermal vent fauna, *Nature*, **379**, 531-533.
Note, see also *News and Views* on paper on page 492 in same issue of *Nature*.
- Nisbet, E.G. & **Fowler, C.M.R.**, 1995, Is metal disposal toxic to deep oceans? *Nature*, **375**, 715.
- Fowler, C.M.R.**, 1995, Flexible University Faculty Positions, *Geoscience Canada*, **21**, 137-139.
- Fowler, C.M.R.**, D.B. Snyder & C.E. Keen, 1995, The origin of intracratonic basins: interdisciplinary seismic studies of Hudson Bay, in “*BIRPS 1995, Status, plans and opportunities*”, Natural Environment Research Council, 8-10.
- Tunncliffe, V. & **Fowler, C.M.R.**, 1995, The history of mid-ocean ridges and the biogeographic patterns of hot vent faunas, *BRIDGE Newsletter*, **8**, 79.
- Fowler, C.M.R.**, Snyder, D.B. & Keen, C.E., 1994, The origin of intracratonic basins: interdisciplinary seismic studies of Hudson Bay, in “*BIRPS 1994, Status, plans and opportunities*”, Natural Environment Research Council, 9-11.
- Fowler, C.M.R.**, 1992, Flexible University Positions - the New Zealand example, *Women in Geoscience*, St. Lawrence University, New York.
- Fowler, C.M.R.** & Pandit, B.I. 1990, Analysis of Data Set 1 - reflection/refraction data from the Vancouver Island continental margin, Studies of laterally heterogeneous structures using seismic refraction and reflection data: 1987 Commission on Controlled Source Seismology Workshop, *Geological Survey of Canada Paper*, **89-13**.
- Fowler, C.M.R.**, Nisbet, E.G. & Pandit, B.I. 1988, The transfer of heat by conduction in the Earth's crust: physical constraints, *Mineralogical Association of Canada Short Course* **14**, 1-33.

- Fowler, C.M.R.** & Nisbet, E.G., 1988, Geotherms in the continental crust and metamorphism, *Mineralogical Association of Canada Short Course* **14**, 34-50.
- Fowler, C.M.R.** & Nisbet, E.G., 1985, The subsidence of the Williston Basin, *Canadian Journal of Earth Sciences*, **22**, 408-415.
- Nisbet, E.G. & **Fowler, C.M.R.**, 1985, A review of some models for the formation of the Williston Basin, *in*, Oil and Gas in Saskatchewan, *Geological Society of Saskatchewan Special Publication* **7**, 1-3.
- Fowler, C.M.R.**, 1984, Travel times, ray tracing and synthetic seismograms for the Zurich-I data, IASPEI Commission on Controlled Source Seismology Workshop Proceedings, Interpretation of seismic wave propagation in laterally heterogeneous structures, ed. Finlayson, D.M. & Anson, J., *Australian Bureau of Mineral Resources Report*, **258**, 129-133.
- Hajnal, Z., **Fowler, C.M.R.**, Mereu, R.F., Kanasevich, E.R., Cumming, G.L., Green, A.G. & Mair, A. 1984, An initial analysis of the Earth's crust under the Williston Basin: 1979 COCRUST experiment, *Journal of Geophysical Research*, **89**, 9381-9400.
- Nisbet, E.G. & **Fowler, C.M.R.**, 1983, A model for Archean plate tectonics, *Geology*, **11**, 376-379.
- Hajnal, Z. & **Fowler, C.M.R.**, 1982, The Earth's crust under the Williston Basin in E. Saskatchewan and W. Manitoba, 4th International Williston Basin Symposium, *Saskatchewan Geological Survey*, 13-18.
- Nisbet, E.G. & **Fowler, C.M.R.**, 1982, The thermal background to metamorphism I. Simple one-dimensional conductive models, *Geoscience Canada*, **9**, 161-164.
- Fowler, C.M.R.** & Nisbet, E.G., 1982, The thermal background to metamorphism II. Simple two-dimensional conductive models, *Geoscience Canada*, **9**, 208-214.
- Fowler, C.M.R.** & Keen, C.E. 1979, Oceanic crustal structure Mid-Atlantic Ridge at 45°N, *Geophysical Journal Royal Astronomical Society*, **56**, 219-226.
- Fowler, C.M.R.**, 1978, The Mid-Atlantic Ridge: structure at 45°N, *Geophysical Journal Royal Astronomical Society*, **54**, 167-183.
- Nisbet, E.G. & **Fowler, C.M.R.**, 1978, The Mid-Atlantic Ridge at 37° and 45°N: some geophysical and petrological constraints, *Geophysical Journal Royal Astronomical Society*, **54**, 631-660.
- Fowler, C.M.R.**, 1977, The Mid-Atlantic Ridge, *Rhodesia Science News*, **11**, 84-85.
- Fowler, C.M.R.**, 1976, Crustal structure of the Mid-Atlantic Ridge crest at 37°N, *Geophysical Journal Royal Astronomical Society*, **47**, 459-491.
- Fowler, C.M.R.**, 1976, Seismic studies of the Mid-Atlantic Ridge at 37°N and 45°N, PhD. thesis, Cambridge University.
- Fowler, C.M.R.** & Matthews, D.H. 1974, Seismic refraction experiment on the Mid-Atlantic Ridge in the FAMOUS area, *Nature*, **249**, 752-754.
- Fowler, C.M.R.**, 1972, Seafloor spreading in the Philippine Sea, *Nature*, **240**, 438-439.

MEMBERSHIP OF PROFESSIONAL BODIES

- Fellow, Geological Society, 2005–date
- Member, American Geophysical Union, 1992-date
- Fellow, Royal Astronomical Society, London, 1977-date

JOURNAL EDITORSHIP

- Editor Geological Society Special Publication "The Early Earth: physical, chemical and biological controls", with C.J. Ebinger & C.J. Hawkesworth.
- Associate Editor of "Journal of Geophysical Research - Solid Earth", American Geophysical Union, 1998 - 2004.
- Associate Editor of "Reviews of Geophysics", American Geophysical Union, 1991-1994.

