

CURRICULUM VITAE: Professor David Barrie Johnson



Present Occupation/Position: Professor of Environmental Biotechnology,
Bangor University, U.K.
Head of Research: School of Biological Sciences

Fellow of the Learned Society of Wales
Industrial Research Fellow of the *Royal Society*
Head of the *Bangor Acidophile Research Team*

Other Positions Held: Honorary Professor, Exeter University, U.K.

Honorary Professor, Central South University, Changsha,
China

Address: School of Biological Sciences,
College of Natural Sciences,
Bangor University, Wales
LL57 2UW. U.K.
Telephone: +44 1248 382 358.
Fax: +44 1248 370 731
e-mail: d.b.johnson@bangor.ac.uk
web site: <http://biology.bangor.ac.uk/research/bart/>

Degrees awarded:

B.Sc. (University of Wales, 1975). Soil Science and Biochemistry, Class 1 (with Honours).
Ph.D. (University of Wales, 1979). Subject area: Environmental Microbiology. Thesis title "Microbial activity in pyritic environments".
D.Sc. (Bangor University, 2008). Title "Advances in Fundamental and Applied Aspects of Acidophilic Microbiology"

Academic career:

1977 - 1979: Demonstrator in Soil Science.
1979 - 1994: Lecturer in Soil Science & Environmental Microbiology.
1994 - 2004: Senior Lecturer in Environmental Microbiology
2004-2008: Reader in Environmental Biotechnology
2008 – present: Professor of Environmental Biotechnology

These appointments have all been at the University of Wales, Bangor (later renamed Bangor University).

Research Fellowships:

- (i) 1989: Research Fellowship, awarded by the U.S. Bureau of Mines/U.S. Department of Energy.
- (ii) 1993; Research Fellowship, awarded by the Associated Western Universities/U.S. Department of Energy.
- (iii) 2007-2011: Industrial Fellowship, awarded by the Royal Society (U.K.).

Research Synopsis

(i) Grant Capture: Research has been supported by 60 grant awards (from UK research councils, U.K. government, the European Union and a variety of multinational industrial companies and SMEs), of total value of ca. £3.5 million (1984-present).

(ii) Research Publications: >275 journal articles, refereed conference proceedings and book chapters (including one edited textbook), plus numerous conference abstracts. Highlighted recent publications:

Johnson, DB, Hallberg, KB, Hedrich, S (2014) Uncovering a microbial enigma: isolation and characterization of the streamer-generating, iron-oxidizing acidophilic bacterium, "*Ferroplasma myxofaciens*". *Applied & Environmental Microbiology* 80 (in press).

Johnson, D.B., Grail, B.M. and Hallberg, K.B. (2013) A new direction for biomining: extraction of metals by reductive dissolution of oxidized ores. *Minerals* 3:49-58 (DOI:10.3390/min3010049)

Johnson, D.B. (2013) Development and application of biotechnologies in the metal mining industry. *Environmental Science and Pollution Research* 11:7768-7776.

Johnson, D.B. (2012) Geomicrobiology of extremely acidic subsurface environments. *FEMS Microbiology Ecology* 81:2-12.

Johnson, D.B., Kanao, T. and Hedrich, S. (2012). Redox transformations of iron at extremely low pH: fundamental and applied aspects. *Frontiers in Microbiology* 3, article 96.

(iii) Lectures at Conferences, Symposia and Workshops: ~120 (mostly overseas and invited talks). Highlighted invited lectures: (i) *South African Biotechnology Conference for the New Millennium* (2000); (ii) *International Biohydrometallurgy Symposia* (1999, 2005 & 2011); (iii) *Primer Congreso Internacional Biolixiviación y Bioremediación* (First International Conference on Bioleaching and Bioremediation), Universidad Arturo Prat, Iquique, Chile. Invited keynote speaker. October, 2007; (iv) *3rd International Conference on Mathematics and Natural Sciences*, and *International Seminar on Environmental Microbiology*. Java and Bali (Indonesia), November 2010; (v) *4th EuCheMS Chemistry Congress*, Prague, August 2011

(iv) Other activities: (a) Representative of the *International Atomic Energy Association* (IAEA) to advise on their remediation strategy for abandoned mines in Peru (2004 and 2006); (b) delegate of the BBSRC research council (visits to Montserrat, West Indies, and Montreal, Quebec); (c) instructor at international workshops in Chile and Sweden; (d) research featured in television and radio broadcasts, and in the printed press (including *The Economist*, and *Scientific American*, where my research was highlighted as one of "10 world changing ideas" in their December 2011 edition).