Brief Curriculum Vitae

Sculpture by Ante Dabro for ANU.

Photo 2020

Barry W. Ninham Born Adelaide, South Australia (09-04-1936)
Early education : Guildford Grammar School, St. George's College, Unversity if Western Australia

Res. School of Physics, Australian National University, Canberra, A.C.T. Australia 0200
Telephone: +61 417 435 761E-mail: barry.ninham@anu.edu.au

Married to Jennifer Ann Grose (deceased) 1958-2000, Veronica Ruth White 2004-2019
4 adult children. 9 grandchildren.

Career
2000-present Emeritus Professor ANU Research School of Physics
1970-2000 Founder and Head, Applied Mathematics, Institute of Advanced Studies, ANU.

1962 -70 Lecturer, Senior Lecturer, Queen Elizabeth II Fellow, Assoc. Professor, Dept. of Applied Mathematics, Univ. of N.S.W., Australia
1960-62 Research Fellow, IBM Corporation, T.J. Watson Centre, NY,
1962 Ph.D. University of Maryland, USA (Mathematical Physics)
1958 M.Sc. Theoretical Physics, University of Western Australia
Visiting Professor at numerous universities.
Continuing research collaborations at ANU; Florence and Cagliari, Italy; Regensburg, Germany; Lund and Linköping, Sweden ;Moscow

Awards
2016 The Matthew Flinders Medal, the Australian Academy of Science
2014 Officer of Order of Australia
2014 Overbeek gold medal of European Colloid and Interface Society
2013 Enzo Ferroni gold medal of Italian Physical Chemistry Society
2010 Honorary Doctorate of Science, U. Western Australia
2008 The Australian National University created the Barry Ninham Chair of Natural Sciences
2006 Craig Medal, Australian Academy of Sciences,
2005 Ostwald Award of German Chemical Society (Colloid and Surface Science) **2004** SIS Nestle-Mittal award
2004 Humboldt Distinguished Professor of Chemistry, Germany
2002-3 Italian National Chair of Chemistry based in Florence; 2005-9 Visiting
2001 Honorary Doctorate of Science, U. Lund
1998 Tage Erlander National Chair in Chemistry, Sweden
1999 Chalmers University 150th Anniversary Chair
1996 TFR (Basic Engineering Sciences) Swedish National Chair in Chemical Engineering
1995 Inaugural Lectureship Award, Colloid Division, Japan Chemical Society
1994 Medal of College de France
1991 Hon. Doctor of Technology in Chem. Eng. at KTH (Royal Institute of Technology), Sweden
1990 Rebinder Medal of the USSR Academy of Science
1978 Fellow Australian Academy of Science
1970 Pawsey Medal of Australian Academy of Science
1970 Edgeworth David Medal of Royal Society of NSW
1964 Awarded the first Queen Elizabeth 11 Fellowship

Professorships

1970-2000 Foundation Professor and Head, Department of Applied Mathematics (Natural Sciences), ANU.
2006-2007 University of Florence
2005 (Jan-July) Humboldt Distinguished Professor, Regensburg, Germany
2004-2005 Italian National Chair in Chemistry based mainly in Florence and Cagliari
2000-present Visiting Professor, University of Florence
2002 (8 months) Guest Professor, Malmo University, Sweden
2001 (Dec 4-6), Speaker, 100th anniversary Nobel Prizes Jubilee Symposium, Friiberghs Herrgard, Orsundsbro, Sweden
2001-present Professor Emeritus, Australian National University
1999 Chalmers University 150th anniversary Chair of Chemistry
1998-1999 Swedish National Tage Erlander NFR (Basic Sciences) Chair in Chemistry
1997-1999 Visiting Professor University of Paris V1
1996 (12 months) National Chair in Chemical Engineering, University of Lund, Sweden [TFR (Swedish Res. Council for Engineering Sciences)]
1994 CEA Saclay, (Atomic Energy Commission), and College de France, University of Paris, France)
1991 & 1994 (6 months) University of Lund, Sweden

1987 (3 months) Visiting Professor, CEA Saclay, France
1983 Foundation Professor, Institute for Mathematics and Its Applications, University of Minnesota and Department of Chemical Engineering, USA
1968-1969 Visiting Scientist, National Institutes of Health USA

Publications (1963-2023)

Over 510 research papers in physical chemistry, mathematics, physics, biology, 7 joint books.
Google science citations in chemistry > 45,000, June 2023
h-index: 98, i10-index: 373

Highest cited paper (6300)
J. N. Israelachvili, D. J. Mitchell and B. W. Ninham 'Theory of self-assembly of hydrocarbon amphiphiles into micelles and bilayers' *Journal of the Chemical Society, Faraday Transactions II*, (1976), ***72*** (9), 1525-1568. **DOI:**10.1039/F29767201525

Other professional contributions

- Chairman and organiser, various international meetings in Mathematics, Physics, Chemistry, and Biology;
- Reviewer, many scientific journals.
- Member and Chair, 10 years, ANU Encyclopaedia Britannica Committee.
- Director Australian Enhanced Oil recovery program,
- Chair National Review Committees in Physical Chemistry (1986), and Basic Engineering Sciences, Sweden (1997)
- Reviewer of Phys. Chem. for Atomic Energy Commission France (1998).
- Numerous University Committees;
- Feature Writer in National Press, on education and science policy.
- Consultant to companies incl. Proctor and Gamble, Unilever, joint programs with Memtec, Rohm and Haas, W.A. Sands.
- Played a major role in preserving ANU from dismemberment during political disputes on new versus old Universities.
- Founder, with Professor John Molony of the ANU Emeritus Faculty.
- Foundation Member, UNESCO World Commission on Ethics of Scientific Knowledge and Technology. (1998-2002).

Significant scientific contributions
Ninham founded the ANU Department of Applied Mathematics in 1970, the world leader in the field of colloid and surface science. He has continued to lead the field for nearly 4 decades. Founded and led the ANU Optical Sciences Department for more than 15 years. More than 110 of the students and/or research fellows mentored became full professors in Australia and overseas in various fields by 2010, and more than 10 had become Fellows of the Australian Academy of Sciences, and five Fellows of the Royal Society. He supervised around 200 Ph.D. theses in Australia and Overseas.
The Department was abolished 50 years after its foundation for no reason

Most recognised contributions are: pioneering advances in surface force theory and measurement, in theories of electrolytes and colloidal interactions, and in the self-assembly of surfactants, mcroemulsions, lipids and other biosystems. And lately in physiology.

Contributions to other fields: Numerical analysis, astrophysics, stochastic processes, physical, inorganic and biochemistry, statistical mechanics of soft condensed matter, liquids at interfaces, solution chemistry, especially electrolytes, polyelectrolytes, new materials via templating and mechanochemistry, immunology, physiology, porous, disordered and random media; membranes for reverse osmosis and ultrafiltration. Number theory in physics, molecular forces in physics, and asymptotic analysis.

Selected Books

- **Random and Restricted Walks: Theory and Application**, M. Barber, B. W. Ninham,

Gordon & Breach, New York (1970), 176pp. ISBN: 067702620X

- **Dispersion Forces,** J. Mahanty, B. W. Ninham, Academic Press, London and New York (1976), 236pp. ISBN: 0124650503
- **The Mathematics and Physics of Disordered Media**: Percolation, Random Walk, Modeling, and Simulation. Editors: B. D. Hughes & B. W. Ninham, Springer, (1983) Volume 1035. ISBN: 978-3-540-12707-9 (Print) 978-3-540-38693-3 (Online)
- **The Language of Shape**, S. T. Hyde, S. Andersson, K. Larsson, S. Lidin, T. Landh, Z. Blum and B. W. Ninham, Elsevier Science B.V. Amsterdam (1997), 470pp.
  ISBN: 0 444 81538 4
- **Molecular Forces and Self Assembly**: in Colloid, Nano Sciences and Biology, B. W. Ninham & P. Lonostro, Cambridge Molecular Science, Cambridge University Press (2010), 365pp. ISBN: 9780521896009
- **Aqua Incognita**, Why Ice Floats on Water and Galileo 400 Years on, Editors, P. Lonostro & B. W. Ninham, Connor Court publishers Ballarat, Victoria (2014), 505pp. ISBN: 1925138216