

BRIEF CURRICULUM VITAE

-Robert G Elliman-

Personal Information

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Academic Qualifications

1976 **B.Appl.Sc.** with Distinction, RMIT University
1980 **M.Appl.Sc.**, RMIT University. Thesis title: *Ion-Implanted Microresistors*
1983 **Ph.D.**, University of Salford, UK. Thesis title: *Generation and Reordering of Radiation Damage in Ion-Implanted Semiconductors*
1997 **D.Sc.**, University of Salford, UK. Based on peer-review of published work.

Current Research Interests

Semiconductor Materials Research

- Memristive behaviour in transition metal oxides.
- Metal-insulator transition in NbO_x as a neuristor.
- Nonvolatile memory technology (e.g. ReRAM).
- Metal-insulator transition in NbO_x as a memory selector element
- Semiconductor nanotechnology.

Ion-Beam Synthesis, Modification and Analysis of Materials

- Ion-Implantation.
- Ion-beam synthesis of novel materials (graphene, nanocrystals, etc)
- Ion-beam induced defects and their interactions.
- Novel applications of ion-implantation.
- Radiation damage in reactor materials

Present Appointments

-Professor of Physics, Australian National University
-Director, ANU Ion Beam Modification and Analysis of Materials Node, NCRIS Heavy-Ion Accelerator Capability

Previous Appointments

1977 - 78 Physicist/Mathematician, R&D Division, Dunlop Tyres Ltd.
1983 - 85 Postdoctoral Fellow, CSIRO Division of Chemical Physics.
1985 - 88 Research Scientist, CSIRO Division of Chemical Physics.
1986 - 86 Research Consultant, AT&T Bell Laboratories (6 months).
1988 - 90 Assoc. Director, Microelectronics and Materials Technology Centre, RMIT.
1990 - 92 Fellow, Electronic Materials Engineering, RSPHYSSE, ANU
1992 - 01 Senior Fellow, Electronic Materials Engineering, RSPHYSSE, ANU.
1998 - 00 Head of Department, Electronic Materials Engineering, RSPHYSSE, ANU
2001 - 03 Vice President, Australian Institute of Physics (AIP)
2003 - 05 President, Australian Institute of Physics (AIP)
2005 - 07 Past President, Australian Institute of Physics (AIP)
2001 - 11 Head, Electronic Materials Engineering Department, RSPE, ANU
2011 - 14 Visiting Professor, Ion Beam Centre, University of Surrey, UK

Academic Awards and Distinctions

1976	Dux of RMIT: University Prize (J.N.McNicol Prize) for outstanding academic record, leadership potential and initiative.
1979	Commonwealth Post-Graduate Scholarship.
1980	Overseas Research Student Award, England.
1983	CSIRO Post Doctoral Fellowship (one of ten awarded annually).
1987	Elected Member of the Böhmsche Physical Society (society recognising outstanding contributions to ion-beam research).
1992	Promoted to Senior Fellow.
1994	Elected Fellow of the Australian Institute of Physics.
1996	Pawsey Medal, Australian Academy of Science (AAS) prize for outstanding achievement in physics research.
1997	D.Sc, based on peer review of published work, Salford University.
2001	Promoted to full Professor, ANU
2003	Elected Fellow, Institute of Physics, UK

Membership of Professional Societies

- Fellow, *Australian Institute of Physics*
- Fellow, *Institute of Physics (UK)*
- Member, *American Physical Society*
- Member, *Materials Research Society*
- Member, *Vacuum Society of Australia*
- Member, *Böhmsche Physical Society* (honorary society for ion-beam research)

Recent Leadership Roles

- Head of Department of Electronic Materials Engineering, RSPHYSSE, ANU (2001-2011)
- President, Vice President, Past President Australian Institute of Physics (2001-2006)
- Member of ANU Leadership Program Steering Committee
- Member, Australian Academy of Science National Committee for Physics (2003-2005)
- Board Member, Federation of Australian Scientific and Technological Societies (2003-2005)
- Member of International Conference Advisory Committees (3)
- Member of Journal Editorial Boards (3)
- Member Executive Committee, EMPD Division, IUVESTA
- Member of specialist advisory/review committees –ANSTO Ion Beam Program, Melbourne University -Microanalytical Research Centre, Surrey University -Ion Beam Centre
- Chair ANU RQF-panel for physical sciences
- Chair ANU Major Equipment Committee (2006-present)
- Member Government NCRIS 'Frontier Technologies' expert working group (2008)
- Industry Consultant, Pacific Solar Pty Ltd.
- Chair, International Advisory Board (IAB), SPIRIT (support of public and industrial research using ion beam technology), a European-Union Network of Ion Beam Laboratories funded under the EU Framework program.
- Director, ANU Ion-Beam Modification and Analysis of Materials Node, Australian National Collaborative Research Infrastructure Scheme (NCRIS).
- Member, ANU Level E (Professor) Promotion Committee. (2014-present)

Publications Summary

Over 320 papers in peer-reviewed journals and conference proceedings, including high-impact journals such as *Phys. Rev. Lett.*, *Appl. Phys. Lett.*, and *Phys. Rev. B*, with the ISI Web-of-Science recording and h-index of 33. ResearcherID: <http://www.researcherid.com/rid/B-8542-2009>

Competitive Grants

Chief Investigator on grants and contracts exceeding \$40m, including current competitive grants from the Australian Research Council's Discovery (DP120101096, DP120101101) and Linkage Programs (LP120100272), the Australian Solar Institute and the National Competitive Research Infrastructure Scheme.