

Michael M. Thackeray

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Professional Experience

1994-Present. Argonne National Laboratory, Argonne Distinguished Fellow, Group Leader and Senior Scientist, Electrochemical Energy Storage Department, Chemical Sciences and Engineering Division.

1983-1994. Council for Scientific and Industrial Research (CSIR), Division of Materials Science and Technology, Pretoria, South Africa (Manager and Senior Research Officer, Battery Technology Unit).

1981-82; 1985. Oxford University (Postdoctoral Appointee, Academic Visitor).

1973-1982. CSIR, National Physical Research Laboratory, Pretoria, South Africa (Research Officer, Chief Research Officer).

Education

Ph.D., Chemistry, University of Cape Town, South Africa.

M.Sc., Chemistry, University of Cape Town, South Africa.

B.Sc. (Honors), Chemistry, University of Cape Town, South Africa.

Research Interests

Energy materials

Solid state electrochemistry – structure-electrochemical property relationships

Structural design of electrode and electrolyte materials for battery systems

Ionic and electronic transport phenomena in solids – phase transitions

Surface phenomena – electrode/electrolyte interactions

Professional Activities

US Department of Energy, Energy Frontier Research Center, Center for Electrochemical Energy Storage (2009-, Director)

Electrochemical Society Battery Division Technology Award Committee (2004-2007; Chairman: 2006-2007)

Electrochemical Society Publications Committee (2005-2009)

International Battery Association (IBA President: 1999-2002; Board Member and Trustee: 1994-)

Electrochemical Society Battery Division Executive Committee (Member-at-large: 1999-2000)

International Union for Pure and Applied Chemistry (IUPAC), Commission II.3 (High Temperature and Solid State Chemistry, Associate Member 1988-1995).

Editorial Board, Journal of Power Sources (1994-2008)

Editorial Board, Journal of Materials Science and Engineering B (2003-2008)

International Scientific Committee, International Meetings on Lithium Batteries (1994-2010)

IBA Symposia Organizing Committee: Chicago, 2000-Chair; Kwa Maritane, South Africa, 2001; Hawaii 2003-Co-chair; Cape Town, South Africa 2011-Program Chair; Hawaii (IBA-PPSS joint symposium) 2012.

Electrochemical Society Battery Division Symposia, Organizing Committee: Hawaii, 1999; Los Angeles, 2005-Chair, Vienna, 2009.

Membership: Electrochemical Society (USA); Materials Research Society (USA); Council for Scientific and Industrial Research (CSIR), Materials Science and Manufacturing Alumni (South Africa).

Technical battery expert and consultant to CSIR, South Africa to defend lithium-ion battery electrode patent applications at the USPTO, and at the Japan Appeal Court and to provide technical support in license negotiations worldwide (1994-ongoing).

Technical battery expert and advisor to the Judge of the Boston Court in a civil action (2002).

Testifying battery expert in US/international lawsuits (2003-2009).

External Supervisor/Examiner of PhD and MSc students (South Africa and USA).

Pre-1994 (South Africa): Served on Committees of: SA Chemical Institute (Northern Transvaal Section), SA Crystallographic Society, and National Program for Energy Research.

Awards and Recognition

International Battery Association, Yeager Award, (2011)

U.S. Department of Energy R&D Award – Office of Vehicle Technologies, (2010)

R&D100 Award, Lithium Battery Technology, (2009)

Invited to the White House by President Bush for discussions on energy policy, (2007)

Electrochemical Society Battery Division Research Award, (2005)

Recognized on the Commemorative Wall at The Innovation Hub (South Africa) for Contributions as a South African to International Science and Technology, (2005)

Research Award of the Battery Division of the Electrochemical Society, (2005)

University of Chicago Distinguished Performance Award, (2003)

International Battery Association Service Certificate, (2003)

Institute of Scientific Information (ISI) Highly Cited Researcher, (2001)

Argonne National Laboratory Pacesetter Award, (1996)

International Battery Association Research Award, (1993)

CSIR Outstanding Achiever Award, (1990)

South African Institute of Physics Silver Medal, (1983)

Publications & Patents

Publications: 206

Patents: 45