



Maria Skyllas-Kazacos
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Maria Skyllas-Kazacos is Emeritus Professor in the School of Chemical Engineering, UNSW Sydney. She pioneered the Vanadium Redox Flow Battery that is currently being commercially manufactured by several companies in Japan, USA, China, UK and Germany and is widely regarded as the most appropriate technology for large-scale energy storage in a wide range of applications. Since 1984, her team has been working on all aspects of the VRB technology, including electrodes, membranes, stack design, electrolyte processing and characterisation, sensors, control, modelling and simulation. She is the principal inventor on more than 30 patents on the technology, including the basic All-Vanadium Redox Flow Battery patent filed in 1986 and several patents describing the use of Additives for Stabilising Supersaturated Vanadium Electrolytes over extended temperature ranges, filed between 1994 and 1996. She has also published widely in the area of aluminium electrowinning in high temperature molten salts.

Current position and past employment history:

- **Emeritus Professor** (2007-present) School of Chemical Engineering, UNSW Sydney, Australia.
- **Professorial Fellow:** (2011-present) School of Chemical Engineering, UNSW Australia
- **Professor** (1993-2007), School of Chemical Engineering, UNSW Australia.
- **Director** (2001-2005), Centre for Electrochemical and Minerals Processing, UNSW.
- **Assoc. Professor** (1987-1993), School of Chemical Engineering & Industrial Chemistry, UNSW.
- **Lecturer/Senior Lecture.** (1982-1987) School of Chemical Engineering & Industrial Chemistry, UNSW.
- **Queen Elizabeth II Fellow:** (1980-1981): School of Physics, UNSW
- **CSIRO Fellow/Member of Technical Staff:** Bell Telephone Laboratories, Murray Hill, NJ, USA
- **Production Manager:** Squibb Pharmaceuticals, 1974.

Academic qualifications:

BSc (Honour I) and University Medal (1974), UNSW Australia.

Ph D in Electrochemical Engineering (1979), UNSW Australia.

Publications: 170 International refereed journal papers, more than 30 patents, over 110 conference papers, 4 book chapters and co-edited 12 books.

Awards:

- (i) Whiffen Medal, Institution of Chemical Engineers Australia, 1997
- (ii) CHEMECA Medal, Institution of Chemical Engineers Australia, 1998
- (iii) Member of the Order of Australia, Australia Day Honours List 1999.
- (iv) R.K. Murphy Medal, Royal Australian Chemical Institute, 2000
- (v) Invested as Grand Lady of the Byzantine Order of St Eugene of Trebizond (Australia Day, 2009)
- (vi) Co-Recipient, 2009 Light Metals Division *Journal of Metals* Best Paper Award
- (vii) Castner Medal, Society for the Chemical Industry, UK, 2011
- (viii) Fellow Australian Academy of Technological Sciences and Engineering, 2013.