A/P Ho Ghim Wei
Associate Professor
Department: Electrical and Computer Engineering
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A. EDUCATIONAL QUALIFICATIONS

2002-2006 PhD University of Cambridge
1995-2000 BSc. & Msc. National University of Singapore

B. PROFESSIONAL EXPERIENCE

2000-2002 R&D process engineer (Chartered Semiconductor Manufacturing Ltd)
2005-2006 Research Associate (Nanoscience Centre, University of Cambridge, UK)
2006-2013 Assistant Professor (National University of Singapore)
2013-2016 Associate professor (National University of Singapore)

C. SELECTED PUBLICATIONS

Gao M., Peh K. N. C., Ho G. W. (2016) "Plasmonic Photothermic Directed Broadband Sunlight Harnessing for Seawater Catalysis and Desalination" **Energy & Environmental Science**
Wang J., Ho G. W. (2015) "Corrosion-mediated self-assembly (CMSA); Direct writing towards sculpturing of 3D tunable functional nanostructures" **Angewandte Chemie**, 54, 1-6.
Zhu L., Tan C. F., Gao M., Ho G. W. (2015) "Design of metal oxide-organic framework (MoOF) foam microreactor; solar-induced direct pollutant degradation and hydrogen generation" **Advanced Materials**, 27, 7713–7719. Tan C. F, Ong W. L., Ho G. W. (2015) "Self-biased hybrid piezoelectric-photoelectrochemical cell with photocatalytic functionalities" **ACS Nano**, 9, 7661-7670.
Zhu L., Hong M., Ho G. W. (2015) "Fabrication of wheat grain textured TiO_2/CuO composite nanofibers for enhanced solar H_2 generation and degradation performance" **Nano Energy**, 11, 28–37.
Zhu T., Wang J., Ho G. W. (2015) "Self-supported yolk-shell nanocolloids towards high capacitance and excellent cycling performance" **Nano Energy**, 18, 273-282.
Low Q. X., Ho G. W. (2014) "Facile structural tuning and compositing of iron oxide-graphene anode towards enhanced supacapacitive performance" **Nano Energy**, 5, 28-35.
Kevin, M., Lee, G. H. and Ho, G.W. (2012). "Non-planar geometries of solution processable transparent conducting oxide: From film characterization to architectured electrodes", **Energy & Environmental Science** 5, 7196.

D. SELECTED OTHER PUBLICATIONS

Publication Record:
90+ papers in chemical/materials/engineering journals

PATENTS

1) 'Efficient production of solar hydrogen energy via engineered nanostructures photocatalyst and optimized system'- SG 201105145-5
2) Solar hydrogen energy from sea/rain/waste water based on engineered nanostructures photocatalyst and efficient hybrid photocatalysis and photoelectrolysis system' - US 61/513, 071
3) 'Integrated sensing and catalytic disinfectant of SMART membrane'- US 61/560,906
4) 'Method for synthesizing textured single crystal YGa-ZnO transparent conducting oxides (TCO) integrated with extended homojunction 3D electrodes'- US 61/668,087
5) "Graphene hydrogel composite; a self-contained media for hydrogen generation and storage"-US61/875,196
6) " Metal Oxide-Organic Framework (MoOF) Microreactor Foam"-US 62/233,675

Book chapters

1) Ho, G.W. (2010) 'Semiconductor oxide nanostructures for field effect transistor applications', Encyclopedia of Semiconductor Nanotechnology, American Scientific Publishers.

2) Ho, G.W. (2010) 'Synthesis and characterization of metal oxide nanostructures for gas sensing applications', Metal oxide nanostructures and their applications, American Scientific Publishers.

3) Ho, G.W. (2013) 'Quasi-3D Architecture for Iron Oxide and Its Influence on Solar Cell Performance, Nova Science Publishers, Ltd. New York – USA, Handbook of Functional Nanomaterials.

4) Ho, G.W. (2015) Metal Sulfide-Based Heterogeneous Catalysis, the Sustainable Inorganic Chemistry Handbook, Wiley

E. LISTING OF AWARDS etc.

2002-2005- Cambridge Commonwealth Trust (CCT) scholarship
2002-2005- Interdisciplinary Research Collaboration (IRC) scholarship
2002-2005-University of Cambridge Selwyn Scholar
2004- Science art competition, University of Cambridge (1st prize)
2004-UK-Japan Nanotechnology summer school, (1st prize)
2004 Cambridge Commonwealth society Fellow
2005 Travel award to the European Materials Research Society (EMRS)
2005 Travel award from the Royal Academy of Engineering (RAEng)
2005 Travel award from the Armourers' & Brasiers' Company
2005 Institute of Physics, Nanoscience & Nanotechnology (1st prize)
2007 Faculty innovative teaching award
2008 Young scientist of the Asia nanotech camp
2009 Commendation teaching award
2009-International Conference on Materials for Advanced Technologies, Best Poster Award
2010 Commendation teaching award
2011 Commendation teaching award
2012- NUS ECE Graduate Student Symposium, Best Student Award (1st Place)
2012-Winner of the IUMRS-ICYRAM 2012 Poster Award
2012 Commendation teaching award
2010-2013 Materials Research Society of Singapore (MRS-S)-Executive Committee, Member
2013-Functional Materials society of Singapore-Executive Committee, Member
2014- Adjunct Appointment IMRE A*Star
2014-Member of Engineering Science consortium
2014-L'Oréal Singapore For Women In Science National Fellowship
2015-JCI Ten Outstanding Young Persons (TOYP) Honoree Award
2015-IES Prestigious Engineering Achievement Award