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■ *CURRENT POSITIONS*

2010- Present

Principal Researcher and Deputy Division Director, Green Energy and Environment Research Laboratories, Industrial Technology Research Institute, Hsinchu, Taiwan.

2012-Present

Principal Investigator, Distributed Energy Storage System and Control Technology Project, Bureau of Energy, Ministry of Economic Affairs, Taiwan

■ *EXPERIENCE*

2009-2012

Principal Investigator, Hydrogen Infrastructure Technology Development and Demonstration, Bureau of Energy, Ministry of Economic Affairs, Taiwan.

2006-2010

Researcher and Manager, Green Energy and Environment Research Laboratories, Industrial Technology Research Institute, Hsinchu, Taiwan.

2004-2005

Visiting Scholar, Department of Materials Science & Engineering, University of Washington, Seattle, WA., USA.

■ *QUALIFICATIONS*

Ph.D., 2005, Department of Chemical Engineering, National Taiwan University.

M.A., 2000, Department of Chemical Engineering, National Taiwan University.

B.S., 1998, Department of Chemical Engineering, National Taiwan University.

■ *EXPERTISE*

Synthesis and characterization of specially designed molecules and nano-materials for energy harvesting, conversion and storage. Energy storage devices including batteries, hydrogen and fuel cells.

■ *AWARDS*

- 2017 Edison Award Finalist, "URABat, an Ultrafast Rechargeable Aluminum Battery".
- 2016 R&D 100 Award Winner, "URABat, an Ultrafast Rechargeable Aluminum Battery".
- 2015 Outstanding Research Award of Industrial Technology Research Institute
- Best Paper Award of Industrial Technology Research Institute, 2018.
- Best Paper Award of Industrial Technology Research Institute, 2016.
- Best Paper Award of Industrial Technology Research Institute, 2014.
- Best Paper Award of Industrial Technology Research Institute, 2007.
- Research Fellowship of Graduate Students Study Abroad Program, 2004-2005, National Science Council, Taiwan.
- Yan's Scholarship, 1994-1995, Yan Ching-Ling Industrial Development Foundation.
- Taiwan Provincial Scholarship, 1994, National Taiwan University.

■ *PUBLICATIONS*

40 Journal papers and 60 conference papers have been published.

- M. C. Huang, S. H. Huang, S. C. Chiu, K. L. Hsueh, W. S. Chang, **C. C. Yang**, C. C. Wu, J. C. Lin, "Improved Electrochemical Performance of Zn-air Secondary Batteries via Novel Organic Additives, Journal of the Chinese Chemical Society, 1-6. (2018)
- T. F. Hung, W. H. Lan, Y. W. Yeh, W. S. Chang, **C. C. Yang**, J. C. Lin, "Hydrothermal Synthesis of Sodium Titanium Phosphate Nanoparticles as Efficient Anode Materials for Aqueous Sodium-Ion Batteries", ACS Sustainable Chem. Eng., 22, 10620-10626. (2016)
- T. F. Hung, W. J. Cheng, W. S. Chang, **C. C. Yang**, C. C. Shen and Y. L. Kuo, "Ascorbic Acid-assisted Synthesis of Mesoporous Na3V2(PO4)3 with Highly Sp2-coordinated Carbon Coatings as Efficient Cathode Materials for Rechargeable Sodium-ion Batteries", Chemistry - A European Journal, 22, 10620-10626. (2016)
- T. F. Hung, H. L. Chou, Y. W. Yeh, W. S. Chang and **C. C. Yang**, "Combined Experimental and Computational Studies of a Na2Ni1-xCuxFe(CN)6 Cathode with Tunable Potential for Aqueous Rechargeable Sodium-Ion Batteries", Chemistry - A European Journal, 21, 15686-15691. (2015)
- S. P. Jung, C. I. Lee, C. C. Chen, W. S. Chang and **C. C. Yang**, "Development of Novel Proton Exchange Membrane Fuel Cells Using Stamped Metallic Bipolar Plates", Journal of Power Sources, 283, 429-442. (2015)
- Y. H. Chi, J. J. Lin, Y. L. Lin, **C. C. Yang** and J. H Huang, "Influence of the Rotation Rate of Porous Stainless Steel Tubes on Electroless Palladium Deposition", Journal of

Membrane Science, 475, 259-265. (2015)

- Y. P. Hsieh, M. Hofmann, K. Y. Chen, J. G. Jhu, Y. Y. Li, K. Y. Chen, **C. C. Yang**, W. S. Chang and L. C. Chen, "Complete Corrosion Inhibition Through Graphene Defect Passivation", ACS Nano, 8, 443-448. (2014)
- W. H. Chen. C. C. Wang, C. I. Hung, **C. C. Yang** and R. C. Jung, "Modeling and Simulation for the Design of Thermal-Concentrated Solar Thermoelectric Generator", Energy, 64, 387-297. (2014)
- W. H. Chen, M. H. Hsia, Y. H. Chi, Y. L. Lin and **C. C. Yang**, "Polarization Phenomena of Hydrogen-Rich Gas in High-Permeance Pd And Pd-Cu Membrane Tubes", Applied Energy, 113, 41-50. (2014)