

## Curriculum Vitae

### Yan-Gu Lin

#### Associate Research Scientist

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#### Adjunct Associate Professor

Department of Materials Science and Engineering,  
National Chiao Tung University, Taiwan

### Education

2004(Sep.) ~ 2010(Nov.) National Chiao Tung University, Taiwan  
*Ph. D.* in Materials Science and Engineering

### Research Experience

2019(Jan.) ~ Current: **Associate Research Scientist** at National Synchrotron Radiation Research Center, Taiwan.  
2014(Jan.) ~ 2018(Dec.): **Assistant Research Scientist** at National Synchrotron Radiation Research Center, Taiwan.  
2012(Jan.) ~ 2013(Dec.): **Postdoctoral Fellow** at Chemical Sciences and Engineering Division & Advanced Photon Source, Argonne National Laboratory, USA.  
2011(Jul.) ~ 2013(Jun.): **Distinguished Postdoctoral Scholar** of Academia Sinica, Taiwan.  
2010(Dec.) ~ 2011(Jun.): **Postdoctoral Fellow**, Center for Condensed Matter Sciences, National Taiwan University, Taiwan.

### Research Interests:

#### A. Energy Conversion

- ✧ **Fuel-to-Hydrogen conversion** by heterogeneous catalysis using metal/oxide-based composited nanoarchitectures
- ✧ **Solar-to-Hydrogen conversion** by photoelectrochemical water splitting using metal-oxide and III-nitride nanomaterials
- ✧ **Hydrogen-to-Electron conversion** by controllable shape of metal nanocatalysts with high-index facet for fuel cells application
- ✧ **Solar-to-Electron conversion** by plasmon sensitized photoelectrochemical solar cells over metal-oxide and III-nitride nanomaterials

#### B. Energy Storage

- ✧ *High-power electron-storage device* based on redox nanomaterials as electrochemical capacitors
- ✧ *High-energy electron-storage device* based on composited metal-oxide nanoarchitectures as electrode of Li ion battery

#### C. Synchrotron Radiation-based Technique

- ✧ *Synchrotron-based X-ray spectroscopy*
- ✧ *In-situ/operando X-ray spectroscopy*

### List of Publications

1. S.W. Chen\*, E.W. HUANG\*, S.M. Chiu, M. Reid, C.Y. Wu, A. M. Paradowska, T.N. Lam\*, Y.H. Wu, S. Y. Lee, S.C. Lu, S.A. Chen, **Y.G. Lin**, S.C. Weng, “Diffraction-based Residual Stress Mapping of a Stress Frame of Gray Iron via Vibratory Stress Relief Method” *Frontiers in Materials*, Vol. 9, pp 859342 (2022).
2. S. Zhou, C.L. Chiang, J. Zhao\*, G. Cheng, T. Bashir, W. Yin\*, J. Yao, S. Yang, W. Li, J. Wang, X. Wang, **Y.G. Lin**\*, L. Gao\*, “Extra Storage Capacity Enabled by Structural Defects in Pseudocapacitive NbN Monocrystals for High-energy Hybrid Supercapacitors” *Adv. Funct. Mater.*, pp 2112592 (2022).
3. Y. Li, C.K. Peng, H. Hu, S.Y. Chen, J. Choi\*, **Y.G. Lin**\*, J.M. Lee\*, “Interstitial Boron-Triggered Electron-Deficient Os Aerogels for Enhanced pH-Universal Hydrogen Evolution” *Nature Communications*, Vol. 13, pp 1143 (2022).
4. X. Kuai, K. Li, J. Chen, H. Wang\*, J. Yao, C.L. Chiang, T. Liu, H. Ye, J. Zhao, **Y.G. Lin**, L. Zhang, V. Nicolosi\*, L. Gao\*, “Interfacial Engineered Vanadium Oxide Nanoheterostructures Synchronizing High-Energy and Long-Term Potassium-Ion Storage” *ACS Nano*, Vol. 16, pp 1502–1510 (2022).
5. C.J. Chang\*, C.L. Huang, Y.H. Yu, M.C. Teng, C.L. Chiang, **Y.G. Lin**\*, “Electron transfer dynamics and enhanced H<sub>2</sub> production activity of hydrangea-like BiOBr/Bi<sub>2</sub>S<sub>3</sub>-based photocatalysts with Cu-complex as a redox mediator” *Applied Surface Science*, Vol. 576, pp 151870 (2022). [2020 IF: 6.707, 1/21 (4.76%), MATERIALS SCIENCE, COATINGS & FILMS]
6. N.V. Mdlovu, N.C. Yang, K.S. Lin\*, C.J. Chang\*, K.T. Dinh, **Y.G. Lin**, “Formulation and characterization of W-doped titania nanotubes for adsorption/photodegradation of methylene blue and basic violet 3 dyes” *Catalysis Today*, Vol. 388-389, pp36-46 (2022) (SCI, IF=6.766).
7. T.T. Wang, Y.T. Yang, S.C. Lim, C.L. Chiang, J.S. Lim, Y.C. Lin, C.K. Peng, M.C. Lin\*, **Y.G. Lin**\*, “Hydrogenation engineering of bimetallic Ag-Cu-modified-titania photocatalysts for production of hydrogen” *Catal. Today*, Vol. 388-389, pp79-86 (2022) (SCI, IF=6.766).
8. T.T. Wang, C.L. Chiang, S. Narra, J.L. Lin, S.W. Chien, J.C. Yu, E. Diau, **Y.G. Lin**\*, M.C. Lin\*, “Synergistic effects of plasmonic gold and perovskite-type SrTiO<sub>3</sub> for enhanced photocatalytic

- performance of TiO<sub>2</sub> nanotube arrays” **Journal of Physical Chemistry C**, Vol. 125, pp 24340–24349 (2021). (SCI, IF=4.126) (Selected as the Journal Cover)
9. M. Wang, Y. Xu, C.K. Peng, S.Y. Chen, **Y.G. Lin**, Z. Hu, L. Sun, S. Ding, C.W. Pao, Q. Shao, and X. Huang\*, “Site-Specified Two-Dimensional Heterojunction of Pt Nanoparticles/Metal–Organic Frameworks for Enhanced Hydrogen Evolution” **Journal of the American Chemical Society**, Vol. 143, pp 16512–16518 (2021). (SCI, IF=15.419)
  10. C.Y. Lin\*, S.C. Huang, **Y.G. Lin**, L.C. Hsu, C.T. Yi, “Electrosynthesized Ni-P nanospheres with high activity and selectivity towards photoelectrochemical plastics reforming” **Applied Catalysis B: Environmental**, Vol. 296, pp120351 (2021) (SCI, IF=19.503).
  11. C. Deng, K.H. Wu\*, X. Lu, S. Cheong, R. D. Tilley, C.L. Chiang, Y.C. Lin, **Y.G. Lin**, W. Yan, J. Scott, R. Amal, D.W. Wang\*, “Ligand-Promoted Cooperative Electrochemical Oxidation of Bio-Alcohol on Distorted Cobalt Hydroxides for Bio-Hydrogen Extraction” **ChemSusChem**, Vol. 14, pp2612-2620 (2021) (SCI, IF=8.928).
  12. C.J. Chang\*, M.C. Teng, J.K. Chen, **Y.G. Lin**\*, C.Y. Chen, “Microwave solvothermal synthesis of cubic MnS@Ag<sub>2</sub>S core-shell photocatalysts with improved charge separation and photocatalytic activity” **Applied Surface Science**, Vol. 558, pp149875 (2021) (SCI, IF=6.707).
  13. M. Wang, X. Dong, Z. Meng, Z. Hu, **Y.G. Lin**, C.K. Peng, H. Wang, C.W. Pao, S. Ding, Y. Li, Q. Shao, X. Huang\*, “An Efficient Interfacial Synthesis of Two-Dimensional Metal-Organic Framework Nanosheets for Electrochemical Hydrogen Peroxide Production” **Angew. Chem. Int. Ed.**, Vol. 60, pp11190-11195 (2021) (SCI, IF=15.336).
  14. C.J. Chang\*, **Y.G. Lin**\*, J.K. Chen, C.Y. Huang, S.C. Hsieh, S.Y. Wu, “Ionic liquid/surfactant-hydrothermal synthesis of dendritic PbS@CuS core-shell photocatalysts with improved photocatalytic performance” **Applied Surface Science**, Vol. 546, pp149106 (2021) (SCI, IF=6.707).
  15. H.C. Kuo, **Y.G. Lin**, C.L. Chiang, S.H. Liu\*, “FeN@N-doped graphitic biochars derived from hydrothermal-microwave pyrolysis of cellulose biomass for fuel cell catalysts” **Journal of Analytical and Applied Pyrolysis**, Vol. 153, pp 104991 (2021) (SCI, IF=5.541).
  16. Y.C. Lin, C.K. Peng, S.C. Lim, C.L. Chen, T.N. Nguyễn, T.T. Wang, M.C. Lin, Y.J. Hsu, S.Y. Chen\*, **Y.G. Lin**\*, “Tailoring the Surface Oxygen Engineering of a Carbon-Quantum-Dot-Sensitized ZnO@H-ZnO<sub>1-x</sub> Multijunction toward Efficient Charge Dynamics and Photoactivity Enhancement” **Applied Catalysis B: Environmental**, Vol. 285, pp 119846 (2021) (SCI, IF=19.503).
  17. C.C. Hsieh, **Y.G. Lin**, C.L. Chiang, W.R. Liu\*, “Carbon-coated porous Si/C composite anode materials via two-step etching/coating processes for lithium-ion batteries” **Ceramics International**, Vol. 46, pp 26598-26607 (2020) (SCI, IF=3.83)
  18. K. Tian, H. Lu, L. Bu, X. Huang, C.L. Chiang, S. Yang, Y. Zhao, **Y.G. Lin**\*, J. Zhao\*, L. Gao\*, “Exploring Lithium Storage Mechanism and Cycling Stability of Bi<sub>2</sub>Mo<sub>3</sub>O<sub>12</sub> Binary Metal Oxide Anode Compositated with Ti<sub>3</sub>C<sub>2</sub> Mxene” **Batteries & Supercaps**, Vol. 3, pp 1296–1305 (2020) (SCI, IF=7.093) (Selected as the Journal Cover)
  19. Y. Lin, H. Wang, C.K. Peng, L. Bu, C.L. Chiang, K. Tian, Y. Zhao, J. Zhao\*, **Y.G. Lin**, J.M. Lee\*, L.

- Gao\*, “Co-Induced Electronic Optimization of Hierarchical NiFe LDH for Oxygen Evolution” **Small**, Vol. 16, pp 2002426 (2020) (SCI, IF=11.459)
20. W.H. Zhong, Z. Wang, S. Han, L. Deng, J. Yu, **Y.G. Lin**, X. Long\*, M. Gu\*, S.H. Yang\*, “Identifying the Active Sites of a Single Atom Catalyst with pH-Universal Oxygen Reduction Reaction Activity” **Cell Reports Physical Science**, Vol. 1, pp 100115 (2020) (SCI, IF=8.109)
21. V.Q. Le, P.A. Le, S.C. Wu, Y.H. Lai, **Y.G. Lin**, K.H. Wei, Y.H. Chu\*, Y.L. Chueh\*, “Transparent Flexible Heteroepitaxy of NiO Coated AZO Nanorods Arrays on Muscovites for Enhanced Energy Storage Application” **Small**, Vol. 16, pp 2000020 (2020) (SCI, IF=11.459)
22. H.C. Kuo, S.H. Liu\*, **Y.G. Lin**, C.L. Chiang, D.C.W. Tsang, “Synthesis of FeCo-N@N-doped carbon oxygen reduction catalysts via microwave-assisted ammoxidation” **Catalysis Science & Technology**, Vol. 10, pp 3949 (2020) (SCI, IF=5.721)
23. R. Muruganatham, I.V.B. Maggay, J.Y. Huang, **Y.G. Lin**, C.C. Yang, W.R. Liu\*, “Tailoring the mesoporous ZnMn<sub>2</sub>O<sub>4</sub> spheres as anode materials with excellent cycle stability for sodium-ion batteries” **Journal of Alloys and Compounds**, Vol. 13, pp 156018 (2020) (SCI, IF=4.650)
24. K.A. Tsai, P.Y. Hsieh, T.H. Lai, C.W. Tsao, H. Pan, **Y.G. Lin**\*, Y.J. Hsu\*, “Nitrogen-doped Graphene Quantum Dots for Remarkable Solar Hydrogen Production” **ACS Appl. Energy Mater.**, Vol. 3, pp 5322 (2020) (SCI, IF=6.024)
25. Y.R. Lu, Y.F. Wang, H.W. Chang, Y.C. Huang, J.L. Chen, C.L. Chen, Y.C. Lin, **Y.G. Lin**, W.F. Pong, T. Ohigashi, N. Kosugi, C.H. Kuo, W.C. Chou\*, C.L. Dong\*, “Effect of Fe<sub>2</sub>O<sub>3</sub> coating on ZnO nanowires in photoelectrochemical water splitting: A synchrotron x-ray spectroscopic and spectromicroscopic investigation” **Sol. Energy Mater. Sol. Cells**, Vol. 209, pp110469 (2020) (SCI, IF=6.984)
26. T.T. Wang, C.L. Chiang, Y.C. Lin, V. Srinivasadesikan, M.C. Lin\*, **Y.G. Lin**\*, “KSCN-activation of Hydrogenated NiO/TiO<sub>2</sub> for Enhanced Photocatalytic Hydrogen Evolution” **Applied Surface Science**, Vol. 511, pp145548 (2020) (SCI, IF=6.182).
27. T.T. Wang, Y.C. Lin, M.C. Lin\*, **Y.G. Lin** \*, “Au-assisted Methanol-hydrogenated Titanium Dioxide for Photocatalytic Evolution of Hydrogen” **Catal. Today**, Vol. 358, pp143-148 (2020) (SCI, IF=5.825).
28. H. Wang, X. Xiao, S. Liu, C.L. Chiang, X. Kuai, C.K. Peng, Y.C. Lin, X. Meng, J. Zhao, J. Choi\*, **Y.G. Lin**, J.M. Lee\*, L. Gao\*, “Structural and Electronic Optimization of MoS<sub>2</sub> Edges for Hydrogen Evolution” **J. Am. Chem. Soc.**, Vol. 141, pp18578 (2019) (SCI, IF=14.612).
29. Y.C. Lin, L.C. Hsu, C.Y. Lin, C.L. Chiang, C.M. Chou, W.W. Wu, S.Y. Chen\*, **Y.G. Lin**\*, “Sandwich-nanostructured n-Cu<sub>2</sub>O/AuAg/p-Cu<sub>2</sub>O Photocathode with Highly Positive Onset Potential for Improved Water Reduction” **ACS Appl. Mater. Interfaces**, Vol. 11, pp38625 (2019) (SCI, IF=9.229).
30. X. Bu, C.L. Chiang, R. Wei, Z. Li, Y. Meng, C.K. Peng, Y.C. Lin, Y. Li, **Y.G. Lin**\*, K.S. Chan, J.C. Ho\*, “2D Cobalt Phosphate Hydroxide Nanosheets: A New Type of High-Performance Electrocatalysts with Intrinsic CoO<sub>6</sub> Lattice Distortion for Water Oxidation” **ACS Appl. Mater. Interfaces**, Vol. 11, pp38633 (2019) (SCI, IF=9.229).

31. R. Muruganatham, I.V.B. Maggay, L.M.Z.D. Juan, M.T. Nguyen, T. Yonezawa, C.H. Lin\*, **Y.G. Lin**, W.R. Liu\*, “Electrochemical exploration of the effects of calcination temperature of a mesoporous zinc vanadate anode material on the performance of Na-ion batteries” **Inorganic Chemistry Frontiers**, Vol. 6, pp2653 (2019) (SCI, IF=5.958).
32. X. Zhu, X. Tan, K.H. Wu, C.L. Chiang, Y.C. Lin, **Y.G. Lin**, D.W. Wang, S. Smith, X. Lu\*, R. Amal\*, “N,P co-coordinated Fe species embedded in carbon hollow spheres for oxygen electrocatalysis” **J. Mater. Chem. A**, Vol. 7, pp14732 (2019) (SCI, IF=11.301).
33. P. Sabhapathy, C.C. Liao, W.F. Chen\*, T.Ch. Chou, I. Shown, A. Sabbah, **Y.G. Lin**, J.F. Lee, M.K. Tsai, K.H. Chen\*, L.C. Chen\*, “Highly efficient nitrogen and carbon coordinated N-Co-C electrocatalysts on reduced graphene oxide derived from vitamin-B12 for the hydrogen evolution reaction” **J. Mater. Chem. A**, Vol. 7, pp7179 (2019) (SCI, IF=11.301).
34. Y.C. Shen, C.Y. Tung, C.Y. Huang, Y.C. Lin, **Y.G. Lin**, R.H. Horng\*, “Study on optoelectronic characteristic of ZnGa<sub>2</sub>O<sub>4</sub> thin-film phototransistors” **ACS Appl. Electronic Materials**, Vol. 1, pp783 (2019).
35. T.T. Wang, P. Raghunath, Y.C. Lin, **Y.G. Lin**\*, M.C. Lin\*, “Effective hydrogenation of TiO<sub>2</sub> photocatalysts with CH<sub>3</sub>OH for enhanced water splitting: A computational and X-ray study” **Applied Surface Science**, Vol. 488, pp546 (2019) (SCI, IF=6.182).
36. C.J. Chang\*, **Y.G. Lin**\*, P.Y. Chao, J.K. Chen, “AgI-BiOI-graphene composite photocatalysts with enhanced interfacial charge transfer and photocatalytic H<sub>2</sub> production activity” **Applied Surface Science**, Vol. 469, pp703 (2019) (SCI, IF=6.182).
37. C.J. Chang\*, **Y.G. Lin**\*, H.T. Weng, Y.H. Wei, “Photocatalytic hydrogen production from glycerol solution at room temperature by ZnO-ZnS/graphene photocatalysts” **Applied Surface Science**, Vol. 451, pp198 (2018) (SCI, IF=6.182).
38. Y.C. Chen, Y.K. Hsu, R. Popescu, D. Gerthsen, **Y.G. Lin**, C. Feldmann\*, “Au@Nb@H<sub>x</sub>K<sub>1-x</sub>NbO<sub>3</sub> nanopeapods with nearinfrared active plasmonic hot-electron injection for water splitting” **Nature Communications**, Vol. 9, pp232 (2018) (SCI, IF=12.353).
39. S.H. Tsai, S. Basu, C.Y. Huang, L.C. Hsu, **Y.G. Lin**, R.H. Horng\*, “Deep-ultraviolet Photodetectors Based on Epitaxial ZnGa<sub>2</sub>O<sub>4</sub> Thin Films” **Scientific Reports**, Vol. 8, pp14056 (2018) (SCI, IF=4.122).
40. H.C. Chiu, W.H. Huang, L.C. Hsu, **Y.G. Lin**, Y.H. Lai, C.Y. Lin\*, “Calcium containing iron oxide as an efficient and robust catalyst in (photo-)electrocatalytic water oxidation at neutral pH” **Sustainable Energy & Fuels**, Vol. 2, pp271 (2018) (SCI, IF=5.503).
41. K.S. Lin\*, **Y.G. Lin**, H.W. Cheng, Y.H. Haung, “Preparation and characterization of V-Loaded titania nanotubes for adsorption/photocatalysis of basic dye and environmental hormone contaminated wastewaters” **Catalysis Today**, Vol. 307, pp119-130 (2018) (SCI, IF=5.825).
42. C.L. Chiang, K.S. Lin\*, P.J. Hsu, **Y.G. Lin**, “Synthesis and characterization of magnetic zinc and manganese ferrite catalysts for decomposition of carbon dioxide into methane” **International Journal of Hydrogen Energy**, Vol. 42, pp22123-22137 (2017) (SCI, IF=3.582).
43. C.L. Chiang, K.S. Lin\*, S.H. Yu, **Y.G. Lin**, “Synthesis and Characterization of

- H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub>/Ce<sub>0.1</sub>Ti<sub>0.9</sub>O<sub>2</sub> for Dimethyl Carbonate Formation via Methanol Carbonation” **International Journal of Hydrogen Energy**, Vol. 42, pp22108-22122 (2017) (SCI, IF=3.582).
44. C.L. Chiang, K.S. Lin\*, **Y.G. Lin**, “Preparation and Characterization of Ni<sub>5</sub>Ga<sub>3</sub> for Methanol Formation via CO<sub>2</sub> Hydrogenation” **Topics in Catalysis**, Vol. 60, pp685-696 (2017) (SCI, IF=2.486).
  45. T.T. Wang, P. Raghunath, **Y.G. Lin**, M.C. Lin\*, “Synergistic Effect of Hydrogenation and Thiocyanate Treatments on Ag-Loaded TiO<sub>2</sub> Nanoparticles for Solar-to-Hydrogen Conversion” **J. Phys. Chem. C**, Vol. 121, pp9681-9690 (2017) (SCI, IF=4.189).
  46. Y.C. Chen, J.H. Hsu, **Y.G. Lin**, Y.K. Hsu\*, “Silver Nanowires on Coffee Filter as Dual-sensing Functionality for Efficient and Low-cost SERS Substrate and Electrochemical Detection” **Sensors & Actuators B: Chemical**, Vol. 245, pp189-195 (2017) (SCI, IF=5.401; Ranking: 4/27, Electrochemistry).
  47. Y.C. Chen, Z.B. Chen, **Y.G. Lin**, Y.K. Hsu\*, “Synthesis of Copper Phosphide Nanotube Arrays as Electrodes for Asymmetric Supercapacitors” **ACS Sustainable Chemistry & Engineering**, Vol. 5, pp 3863-3870 (2017) (SCI, IF=5.951; Ranking: 9/135, Engineering, Chemical).
  48. Y.C. Chen, **Y.G. Lin**, Y.K. Hsu\*, “Biomimicry of Cuscuta Electrode Design Endows Hybrid Capacitor with Ultrahigh Energy Density Exceeding 2 mWh cm<sup>-2</sup> at a Power Delivery of 25 mW cm<sup>-2</sup>” **Journal of Materials Chemistry A**, Vol. 5, pp 4779-4784 (2017) (SCI, IF=11.301).
  49. Y.C. Chen, J.H. Hsu, Z.B. Chen, **Y.G. Lin**, Y.K. Hsu\*, “Fabrication of Fe<sub>3</sub>O<sub>4</sub> Nanotube Arrays for High-Performance Non-Enzymatic Detection of Glucose” **Journal of Electroanalytical Chemistry**, Vol. 788, pp144-149 (2017) (SCI, IF=3.012; Ranking: 10/27, Electrochemistry).
  50. S.G. Zybtshev, V.Ya. Pokrovskii, V.F. Nasretdinova, S.V. Zaitsev-Zotov, V.V. Pavlovskiy, A.B. Odobesco, Woei Wu Pai, M.-W. Chu, **Y.G. Lin**, E. Zupanič, H.J.P. van Midden, S. Šturm, E. Tchernychova, A.Prodan, J.C. Bennett, I.R. Mukhamedshin, O.V. Chernysheva, A.P. Menushenkov, V.B. Loginov, M. Abdel-Hafiez, B.A. Loginov, A.N. Titov, “NbS<sub>3</sub> – a unique quasi one-dimensional conductor with three charge density wave transitions” **Physical Review B**, Vol. 95, pp035110 (2017). (IF=3.836, Ranking: 16/67, Physics, Condensed Matter).
  51. Y.K. Hsu\*, Z.B. Chen, Y.C. Chen, **Y.G. Lin**\*, “Room-temperature Fabrication of Cu Nanobrushes for an Effective Surface-enhanced Raman Scattering Substrate” **CrystEngComm**, Vol. 18, pp8284-8290 (2016). (IF=3.474, Ranking: 5/26, Crystallography).
  52. **Y.G. Lin**\*, Y.K. Hsu\*, Y.C. Lin, Y.C. Chen, “Hierarchical Fe<sub>2</sub>O<sub>3</sub> nanotube/nickel foam electrodes for electrochemical energy storage” **Electrochimica Acta**, Vol. 216, pp287-294 (2016). (IF=6.216).
  53. **Y.G. Lin**\*, Y.K. Hsu\*, Y.C. Lin, Y.C. Chen, “Electrodeposited Fe<sub>2</sub>TiO<sub>5</sub> Nanostructures for Photoelectrochemical Oxidation of Water” **Electrochimica Acta**, Vol. 213, pp898-903 (2016). (IF=6.216).
  54. **Y.G. Lin**\*, Y.K. Hsu\*, Y.C. Lin, Y.H. Cheng, S.Y. Chen, Y.C. Chen, “Synthesis of Cu<sub>2</sub>O Nanoparticle Films at Room temperature for Solar Water Splitting” **Journal of Colloid and Interface Science**, Vol. 471, pp76-80 (2016). (IF=7.489).
  55. Y.C. Chen, **Y.G. Lin**\*, L.C. Hsu, A. Tarasov, P.T. Chen, M. Hayashi, J. Ungelenk, Y.K. Hsu\*, C. Feldmann\*, “β-SnWO<sub>4</sub> Photocatalyst with Controlled Morphological Transition of Cubes to

- Spikecubes” **ACS Catalysis**, Vol. 6, pp2357-2367 (2016). (IF=12.35). (Selected as the Journal Cover)
56. C.P. Lee, W.F. Chen, T. Billo, **Y.G. Lin**, F.Y. Fu, S. Samireddi, C.H. Lee, J.S. Hwang, K.H. Chen, L.C. Chen, “Beaded stream-like CoSe<sub>2</sub> nanoneedle array for efficient hydrogen evolution electrocatalysis” **Journal of Materials Chemistry A**, Vol. 4, pp4553-4561 (2016). (IF=11.301).
57. **Y.G. Lin**\*, Y.K. Hsu\*, C.J. Chuang, Y.C. Lin, Y.C. Chen, “Thermally Activated Cu/Cu<sub>2</sub>S/ZnO Nanoarchitectures with Surface-Plasmon-Enhanced Raman Scattering” **Journal of Colloid and Interface Science**, Vol. 464, pp66-72 (2016). (IF=7.489).
58. Y.K. Hsu\*, Y.C. Chen, **Y.G. Lin**\*, “Novel ZnO/Fe<sub>2</sub>O<sub>3</sub> Core-shell Nanowires for Photoelectrochemical Water Splitting” **ACS Applied Materials & Interfaces**, Vol. 7, pp14157-14162 (2015). (IF=7.504; Ranking: 26/251, Materials Science, Multidisciplinary).
59. Y.K. Hsu\*, Y.C. Chen, and **Y.G. Lin**\*, “Spontaneous Formation of CuO Nanosheets on Cu Foil for H<sub>2</sub>O<sub>2</sub> Detection” **Applied Surface Science**, Vol. 354, pp85-89 (2015). (IF=3.387; Ranking: 2/18, Materials Science, Coatings & Films).
60. Y.K. Hsu\*, J.R. Wu, M.H. Chen, Y.C. Chen, and **Y.G. Lin**\*, “Fabrication of Homojunction Cu<sub>2</sub>O Solar Cells by Electrochemical Deposition” **Applied Surface Science**, Vol. 354, pp8-13 (2015). (IF=3.387; Ranking: 2/18, Materials Science, Coatings & Films).
61. Y.C. Chang, S.N. Hsiao\*, S.H. Liu, S.H. Su, K.F. Chiu, W.C. Hsieh, S.K. Chen, **Y.G. Lin**\*, H.Y. Lee, C. K. Sung, and J.G. Duh\*, “Effect of L12 ordering in antiferromagnetic Ir-Mn epitaxial layer on exchange bias of FePd films” **Journal of Applied Physics**, Vol. 117, pp17D154 (2015). (IF=2.068; Ranking: 37/125, PHYSICS, APPLIED)
62. Y.K. Hsu\*, H.H. Lin, M.H. Chen, Y.C. Chen, and **Y.G. Lin**\*, “Polarity-dependent Performance of p-Cu<sub>2</sub>O/n-ZnO Solar Cells” **Electrochimica Acta**, Vol. 144, pp295-299 (2014). (IF=4.086; Ranking: 4/27, Electrochemistry)
63. Y.K. Hsu\*, Y.C. Chen, and **Y.G. Lin**\*, “Synthesis of CuS Nanowire Arrays for High-performance Supercapacitors” **Electrochimica Acta**, Vol. 139, pp401-407 (2014). (IF=4.086; Ranking: 4/27, Electrochemistry)
64. **Y.G. Lin**\*, Y.K. Hsu, Y.C. Chen, B.W. Lee, J.S. Hwang, L.C. Chen\*, and K.H. Chen\*, “Cobalt-Phosphate-Assisted Photoelectrochemical Water Oxidation by Arrays of Molybdenum-Doped Zinc Oxide Nanorods” **ChemSusChem**, Vol. 7, pp2748-2754 (2014). (IF=7.117; Ranking: 17/148, Chemistry, Multidisciplinary)
65. Y.C. Chen, **Y.G. Lin**\*, Y.K. Hsu\*, S.C. Yen, K.H. Chen, and L.C. Chen\*, “Novel Iron Oxyhydroxide Lepidocrocite Nanosheet as Ultrahigh Power Density Anode Material for Asymmetric Supercapacitors” **Small**, Vol. 10, pp3803-3810 (2014). (IF=7.514; Ranking: 17/251, Materials Science, Multidisciplinary)
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