Dong-Hau Kuo, Professor

Department of Materials Science and Engineering
National Taiwan University of Science and Technology
No. 43, Sec. 4, Keelung Road
Taipei, Taiwan
TEL: 886-2-2730-3291；FAX: 886-2-2730-3291；
E-MAIL: dhkuo@mail.ntust.edu.tw

Profession Experience

Period	Institution	Job position
2007/8 ~ present	National Taiwan University of Science and Technology	Professor
2013/8 ~ 2016/7		Department Chair
2003/2 ~ 2006/7	National Dong Hwa University	Department Chair
1997/8 ~ 2007/7		Assistant, Associate, Full Professor
1989/7 ~ 1990/7	Superconductor Division, Industrial Technology Research Institute	Associate Researcher

Education

Doctorate	Ceramic Engineering, University of Illinois at Urbana-Champaign, 1990-1996 “Investigation of Oxide/Oxide Composites with a Weak Interphase” Advisor : W. M. Kriven
Master	Mining, Metallurgy and Materials Science, National Cheng Kung University, 1985~1987. “Growth and Microstructure of Low-Pressure CVD-SiC”, Advisor : M. H. Hon
Bachelor	Materials Science, Feng Chia University, 1981-1985.

Research Area

Kuo’s research involves the fields of Materials, Chemical Eng., Mechanical Eng. and, physics. His major research area include CO_2 utilization, Hydrogen generation, Catalysis, III-Nitride (GaN, Mg-GaN, InGaN), I_2-II-IV-VI_4Solar Cell, Li-Conducting Solid Electrolyte, Defect Engineering, ZnONanorods and its Kinetics, CNT and its Kinetics, CVD in SiO_2, Al_2O_3, TiO_2 thin films, PVD, Composites in epoxy/$BaTiO_3$, Polyimide/BN, PU/CNT, PI/$BaTiO_3$, PU/TiO_2, Nylon and PP/Photocatalyst, Sapphire Fiber/Ceramic Matrix etc., Hollow SiO_2Sphere, Thin Film Ferroelectricity, Dielectricity of Bulks and Thin Films, SS 316/Al_2O_3 Joining, Hard Coatings in TiN, Ti-Si-N, and Ti-Si-C-N by CVD, Functional Gradient Materials, Hot Pressing Technique. Prof. Kuo has published about **180** SCI papers and granted **10** patents.

Selected Academic Publications in Recent 3 Years

1. AngawKelemeworkAbay, Xiaoyun Chen, **Dong-Hau Kuo***, Highly efficient noble metal free copper nickel oxysulfide nanoparticles for catalytic reductions of 4-nitrophenol, methyl blue, and rhodamine-B organic pollutants, **New J. Chem.**, 41 (2017) 5628-5638.
2. Xiaoyun Chen, **Dong-HauKuo***, Nanoflower bimetal CuInOSoxysulfide catalyst for the reduction of Cr(VI) to metallic Cr in the dark,**ACS Sustainable Chem. Eng.** 5 (2017) 4133−4143.
3. Hairus Abdullah, **Dong-HauKuo***, Xiaoyun Chen, High efficient noble metal free Zn(O,S)nanoparticles for hydrogen evolution, **International Journal of Hydrogen Energy**, 42 (2017) 5638-5648.
4. Xiaoyun Chen, Hairus Abdullah, **Dong-HauKuo***, CuMnOSNanoflowers with different Cu^{+}/Cu^{2+} ratios for the CO_2-to-CH_3OH and the CH_3OH-to-H_2 redox reactions, **Scientific Reports**, 7 (2017) 41194.
5. Osman Ahmed and **Dong-Hau Kuo***, Synthesis of NiO/NiS Composite Catalyst and its Catalytic Activities for Reduction of 4-Nitrophenol and other Organic Dyes, **RSC Advances**, 7 (2017) 4353-4362.
6. Xiaoyun Chen, **Dong-HauKuo***, Dongfang Lu, N-doped mesoporous TiO_2 nanoparticlessynthesized by using biological renewable nanocrystalline cellulose as template for phenoldegradation under visible and sun light, **Chemical Engineering Journal**, 295 (2016) 192-200.
7. **Dong-Hau Kuo***, Wei-Ting Hsu, Yi-Yuan Yang, From the Fluorescent Lamp-Induced BactericidalPerformance of Sputtered Ag/TiO_2 Films to Re-Explore the Photocatalytic Mechanism,**Applied Catalysis B: Environmental,** 184 (2016) 191-200.
8. Hairus Abdullah, **Dong-HauKuo,*** Yen-RongKuo, Fu-An Yu, and Kou-Bin Cheng, Facile Synthesis and Recyclability of Thin Nylon Film-Supported n-Type ZnO/p-Type Ag_2O NanoComposite for Visible Light Photocatalytic Degradation of Organic Dye, **Journal ofPhysical Chemistry C**, 120 (2016) 7144-7154.
9. Osman Ahmed and **Dong-Hau Kuo*,** A two-oxide nanodiode system made of double-layeredp-type Ag_2O@n-type TiO_2 for rapid reduction of 4-nitrophenol,**Physical ChemistryChemical Physics**, 18 (2016) 4405–4414.
10. Hairus Abdullah; **Dong-HauKuo***, Facile Synthesis of n-type $(AgIn)_xZn_{2(1-x)}S_2$/p-type Ag_2S NanoComposite for Visible Light Photocatalytic Reduction to Detoxify Hexavalent Chromium,**ACS Applied Materials & Interfaces**, 7 (2016) 26941–26951.
11. Hairus Abdullah and **Dong-HauKuo***, Photocatalytic Performance of Ag and $CuBiS_2$Nanoparticles-Coated SiO_2@TiO_2Composite Sphere under Visible and Ultraviolet LightIrradiation for Azo Dye Degradation with the Assistance of Numerous Nano p-n Diodes,**Journal of Physical Chemistry C**. 119 (2016) 13632−13641.
12. Thi Tran Anh Tuan,**Dong-Hau Kuo***, Albert Daniel Saragih, Guan-Zhang Li, Electrical properties of RF-sputtered Zn-doped GaN films and p–Zn-GaN/n–Si hetero junction diode with low leakage current of 10^{-9} A and a high rectification ratio above 10^5, **Materials Science and Engineering B**, 222 (2017) 18-25.
13. Thi Tran Anh Tuan, **Dong-Hau Kuo***,Characteristics of RF reactive sputter-deposited Pt/SiO_2/n-InGaN MOS Schottky diodes,**Materials Science in Semiconductor Processing**, 30 (2015) 314–320.
14. Meng-Wei Ma (學生), **Dong-Hau Kuo***, Fast detoxication of 2-chloro ethyl ethyl sulfide by *p*-type Ag_2O semiconductor nanoparticle-loaded Al_2O_3-based supports,**Journal of Hazardous Materials**, 301 (2016) 84-91.
15. **Dong–Hau Kuo***, Cheng–Che Li, Thi Tran Anh Tuan, and Wei–Chun Yen, Effects of Mg Doping on the Performance of *p*-type InGaN Films Grown by Reactive Sputtering, **J. Electron. Mater.** 44 (2015) 210-216.