Prof. Chien-Kuo Hsieh

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Areas of Expertise

- The synthesis of low-dimensional nanomaterials including carbon dots, CNTs, graphene, TMDCs nanomaterials, Pt and other high-performance catalytic nanomaterials.
- Various synthesis technologies for low-dimensional nanomaterials, MOFs.
- Energy generation and storage applications; Clean and purification for environments.
- Dye-sensitized solar cells, Supercapacitors, Methanol oxidation reaction, Water splitting.
- Chemical vapor deposition, Physical vapor deposition, Electrochemical deposition.

Academic Degrees

Ph.D. (2012) - Engineering and System Science, National Tsing Hua University.

M.S. (2002) - Materials Science and Engineering, National Tsing Hua University.

B.S. (2000) - Materials and Mineral Resources Engineering, National Taipei University of Technology.

Career Experiences

Professor (2019/08 ~): Ming Chi University of Technology, New Taipei City, TWN.

Associate professor (2015/08 ~ 2019/07): Ming Chi University of Technology, New Taipei City, TWN.

Assistant professor (2012/08 ~ 2015/07): Ming Chi University of Technology, New Taipei City, TWN.

Postdoctoral researcher (2012/04 ~ 2012/07): National Tsing Hua University, Hsinchu, TWN.

Front-End engineer (2002/07 ~ 2011/05): Applied Materials, Hsinchu, TWN.

Honors and Awards

- 1) 2022 Taiwan Innotech Expo (TIE), Copper metal award.
- 2) 2021 Taiwan Innotech Expo (TIE), Silver metal award.

- 3) 2020 Carbon Society of Taiwan, Outstanding Service Award.
- 4) 2020 Taiwan Innotech Expo (TIE), Gold metal award.
- 5) 2019 Taiwan Innotech Expo (TIE), Gold metal award.
- 6) 2019 Taiwan Innotech Expo (TIE), Special technology award.
- 2019 Energy Technology Creative Implementation Competition, Ministry of Education Taiwan, Gold metal award.
- 8) 2012 Phi Tau Phi honorary member of National Tsing Hua University.

Patterns

- 1) 2022 United States Patent, No. 11,246,238 B2.
- 2) 2021 Invention Patent of Republic of China, No. I750654.
- 3) 2020 Invention Patent of Republic of China, No. I707010.
- 4) 2019 Invention Patent of Republic of China, No. 1664017.
- 5) 2019 Invention Patent of Republic of China, No. 1664016.

Publications

- [1] Journal of Colloid and Interface Science, 625 (2022) 565-575.
- [2] J Alloy Compd, 897 (2022) 163031.
- [3] Surface and Coatings Technology, 394 (2020) 125855.
- [4] Surface and Coatings Technology, 393 (2020) 125850.
- [5] Surface and Coatings Technology, 398 (2020) 126075.
- [6] Appl Surf Sci, 505 (2020) 143828.
- [7] Electrochimica Acta, 317 (2019) 312-321.
- [8] J Power Sources, 417 (2019) 108-116.
- [9] Surface and Coatings Technology, 350 (2018) 1003-1009.
- [10] Surface and Coatings Technology, 344 (2018) 534-540.
- [11] J Alloy Compd, 692 (2017) 941-949.
- [12] Mater Lett, 192 (2017) 40-43.
- [13] Surf Coat Tech, 320 (2017) 263-269.
- [14] Surf Coat Tech, 320 (2017) 584-589.
- [15] Surface and Coatings Technology, 320 (2017) 536-541.
- [16] Surface and Coatings Technology, 320 (2017) 409-413.
- [17] ChemElectroChem, 4 (2017) 2414-2422.