

Stanford

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Physical Science Research Scientist

Mechanical Engineering

Bio

ACADEMIC APPOINTMENTS

- Phys Sci Res Assoc, Mechanical Engineering

Publications

PUBLICATIONS

- **Intercalation of Hydrogen in Perovskite Oxide for Pseudocapacitive Energy Storage** *CHEMISTRY OF MATERIALS*
Lin, M., Lu, M., Chou, H., Wan, G., Chen, C.
2023; 35 (24): 10487-10494
- **Low-temperature carbon dioxide conversion via reverse water-gas shift thermochemical looping with supported iron oxide** *CELL REPORTS PHYSICAL SCIENCE*
Sun, E., Wan, G., Haribal, V., Gigantino, M., Marin-Quiros, S., Oh, J., Vailionis, A., Tong, A., Randall, R., Rojas, J., Gupta, R., Majumdar, A.
2023; 4 (9)
- **Dynamic and reversible transformations of subnanometre-sized palladium on ceria for efficient methane removal** *NATURE CATALYSIS*
Jiang, D., Wan, G., Halldin Stenlid, J., Garcia-Vargas, C. E., Zhang, J., Sun, C., Li, J., Abild-Pedersen, F., Tassone, C. J., Wang, Y.
2023
- **Transport Mediating Core-Shell Photocatalyst Architecture for Selective Alkane Oxidation.** *Nano letters*
Xie, C., Sun, E., Wan, G., Zheng, J., Gupta, R., Majumdar, A.
2023
- **Phase Transition Dynamics in a Complex Oxide Heterostructure** *PHYSICAL REVIEW LETTERS*
Zhang, Q., Hu, G., Starchenko, V., Wan, G., Dufresne, E. M., Dong, Y., Liu, H., Zhou, H., Jeon, H., Saritas, K., Krogel, J. T., Reboredo, F. A., Lee, et al
2022; 129 (23): 235701
- **Iron-Poor Ferrites for Low-Temperature CO₂ Conversion via Reverse Water-Gas Shift Thermochemical Looping** *ACS SUSTAINABLE CHEMISTRY & ENGINEERING*
Rojas, J., Sun, E., Wan, G., Oh, J., Randall, R., Haribal, V., Jung, I., Gupta, R., Majumdar, A.
2022
- **Reaction-Mediated Transformation of Working Catalysts** *ACS CATALYSIS*
Wan, G., Zhang, G., Chen, J., Toney, M. F., Miller, J. T., Tassone, C. J.
2022
- **More powerful twistrion carbon nanotube yarn mechanical energy harvesters.** *Advanced materials (Deerfield Beach, Fla.)*
Wang, Z., Mun, T. J., Machado, F. M., Moon, J. H., Fang, S., Aliev, A. E., Zhang, M., Cai, W., Mu, J., Hyeon, J. S., Park, J. W., Conlin, P., Cho, et al
2022: e2201826
- **A reconfigurable crosslinking system via an asymmetric metal-ligand coordination strategy** *POLYMER CHEMISTRY*
An, X., Li, Y., Xu, M., Xu, Z., Ma, W., Du, R., Wan, G., Yan, H., Cao, Y., Ma, D., Zhang, Q., Jia, X.
2022

- **Water or Anion? Uncovering the Zn²⁺ Solvation Environment in Mixed Zn(TFSI)₂ and LiTFSI Water-in-Salt Electrolytes** *ACS ENERGY LETTERS*
Zhang, Y., Wan, G., Lewis, N. C., Mars, J., Bone, S. E., Steinrueck, H., Lukatskaya, M. R., Weadock, N. J., Bajdich, M., Borodin, O., Tokmakoff, A., Toney, M. F., Maginn, et al
2021; 6 (10): 3458-3463
- **Direct methane activation by atomically thin platinum nanolayers on two-dimensional metal carbides** *NATURE CATALYSIS*
Li, Z., Xiao, Y., Chowdhury, P., Wu, Z., Ma, T., Chen, J., Wan, G., Kim, T., Jing, D., He, P., Potdar, P. J., Zhou, L., Zeng, et al
2021; 4 (10): 882-891
- **Tailoring the Local Environment of Platinum Single-Atom Pt₁/CeO₂ Catalysts for Robust Low-Temperature CO Oxidation.** *Angewandte Chemie (International ed. in English)*
Jiang, D., Yao, Y., Li, T., Wan, G., Pereira-Hernandez, X. I., Lu, Y., Tian, J., Khivantsev, K., Engelhard, M. H., Sun, C., Garcia-Vargas, C. E., Hoffman, A. S., Bare, et al
2021
- **Water-in-Salt LiTFSI Aqueous Electrolytes. 1. Liquid Structure from Combined Molecular Dynamics Simulation and Experimental Studies.** *The journal of physical chemistry. B*
Zhang, Y., Lewis, N. H., Mars, J., Wan, G., Weadock, N. J., Takacs, C. J., Lukatskaya, M. R., Steinrueck, H., Toney, M. F., Tokmakoff, A., Maginn, E. J.
2021
- **Elucidation of the Active Sites in Single-Atom Pd-1/CeO₂ Catalysts for Low-Temperature CO Oxidation** *ACS CATALYSIS*
Jiang, D., Wan, G., Garcia-Vargas, C. E., Li, L., Pereira-Hernandez, X., Wang, C., Wang, Y.
2020; 10 (19): 11356-64
- **Interfacial Speciation Determines Interfacial Chemistry: X-ray-Induced Lithium Fluoride Formation from Water-in-salt Electrolytes on Solid Surfaces.** *Angewandte Chemie (International ed. in English)*
Steinrueck, H., Cao, C., Lukatskaya, M., Takacs, C., Wan, G., Mackanic, D., Tsao, Y., Zhao, J., Helms, B., Xu, K., Borodin, O., Wishart, J. F., Toney, et al
2020
- **NASICON Na₃V₂(PO₄)₃ Enables Quasi-Two-Stage Na⁺ and Zn²⁺ Intercalation for Multivalent Zinc Batteries** *CHEMISTRY OF MATERIALS*
Ko, J. S., Paul, P. P., Wan, G., Seitzman, N., DeBlock, R., Dunn, B. S., Toney, M. F., Weker, J.
2020; 32 (7): 3028-35