

Stanford

Thomas M. Gill

- Ph.D. Student in Mechanical Engineering, admitted Spring 2017
- Masters Student in Mechanical Engineering, admitted Autumn 2016

Bio

EDUCATION AND CERTIFICATIONS

- B.S., Villanova University Honors Program , Mechanical Engineering:Thermal-Fluid Systems (2016)

Research & Scholarship

PROJECTS

- Sorption-Enhanced Catalysis of Sabatier Reaction - Chemical Engineering Department, Villanova University (January 1, 2015 - 5/15/2016)
- Heat Transfer Modeling of Green Building - Mechanical Engineering Department, Villanova University (August 30, 2015 - May 15, 2016)

Publications

PUBLICATIONS

- **Electrochemical Synthesis of H₂O₂ by Two-Electron Water Oxidation Reaction** *CHEM*
Shi, X., Back, S., Gill, T., Siahrostami, S., Zheng, X.
2021; 7 (1): 38–63
- **Enhancing combustion performance of nano-Al/PVDF composites with beta-PVDF** *COMBUSTION AND FLAME*
Huang, S., Hong, S., Su, Y., Jiang, Y., Fukushima, S., Gill, T., Yilmaz, N., Tiwari, S., Nomura, K., Kalia, R. K., Nakano, A., Shimojo, F., Vashishta, et al
2020; 219: 467–77
- **Comparing Methods for Quantifying Electrochemically Accumulated H₂O₂** *CHEMISTRY OF MATERIALS*
Gill, T., Zheng, X.
2020; 32 (15): 6285–94
- **Effect of Adventitious Carbon on Pit Formation of Monolayer MoS₂.** *Advanced materials (Deerfield Beach, Fla.)*
Park, S., Siahrostami, S., Park, J., Mostaghimi, A. H., Kim, T. R., Vallez, L., Gill, T. M., Park, W., Goodson, K. E., Sinclair, R., Zheng, X.
2020: e2003020
- **On-demand production of hydrogen by reacting porous silicon nanowires with water** *NANO RESEARCH*
Ning, R., Jiang, Y., Zeng, Y., Gong, H., Zhao, J., Weisse, J., Shi, X., Gill, T. M., Zheng, X.
2020
- **A Zn: BiVO₄/ Mo: BiVO₄ homojunction as an efficient photoanode for photoelectrochemical water splitting** *JOURNAL OF MATERIALS CHEMISTRY A*
Lee, J., Baek, J., Gill, T., Shi, X., Lee, S., Cho, I., Jung, H., Zheng, X.
2019; 7 (15): 9019–24
- **Selective and Efficient Gd-Doped BiVO₄ Photoanode for Two-Electron Water Oxidation to H₂O₂** *ACS ENERGY LETTERS*
Baek, J., Gill, T., Abroshan, H., Park, S., Shi, X., Norskoy, J., Jung, H., Siahrostami, S., Zheng, X.
2019; 4 (3): 720–28
- **Enabling silicon photoanodes for efficient solar water splitting by electroless-deposited nickel** *NANO RESEARCH*
Zhao, J., Gill, T., Zheng, X.
2018; 11 (6): 3499–3508

- **Conformal Electroless Nickel Plating on Silicon Wafers, Convex & Concave Pyramids, and Ultralong Nanowires.** *ACS applied materials & interfaces*
Gill, T. n., Zhao, J. n., Berenschot, E. J., Tas, N. n., Zheng, X. n.
2018