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Publications

PUBLICATIONS

- **Technoeconomic analysis of hydrogen storage using 1,4-butanediol (BDO)/ γ-butyrolactone (GBL) as a stationary backup power system** *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*
  Shyong, J., Bowden, M., Autrey, T., Saqline, S., Breunig, H.
  2026; 208

- **Achieving gigawatt-scale green hydrogen production and seasonal storage at industrial locations across the U.S** *NATURE COMMUNICATIONS*
  Breunig, H., Rosner, F., Saqline, S., Papadias, D., Grant, E., Brooks, K., Autrey, T., Ahluwalia, R., King, J., Hammond, S.
  2024; 15 (1)

- **An investigation of the structural and electronic origins of enhanced chemical looping air separation performance of B-site substituted SrFe_{1-x}Co_xO_{3-δ} perovskites** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*
  Fan, Q., Li, H., Saqline, S., Donat, F., Tan, M., Tao, L., Muller, C. R., Xu, Z. J., Liu, W.
  2024; 26 (30): 20511-20521

- **Halite-structured (MgCoNiMnFe)O_x high entropy oxide (HEO) for chemical looping dry reforming of methane** *APPLIED CATALYSIS B-ENVIRONMENT AND ENERGY*
  Shao, Y., Wu, C., Xi, S., Tan, P., Wu, X., Saqline, S., Liu, W.
  2024; 355

- **A comprehensive review of carbon capture science and technologies** *CARBON CAPTURE SCIENCE & TECHNOLOGY*
  Wu, C., Huang, Q., Xu, Z., Sipra, A., Gao, N., Vandenberghe, L., Vieira, S., Soccol, C., Zhao, R., Deng, S., Boetcher, S. K. S., Lu, S., Shi, et al
  2024; 11

- **Synthesis of uniform Fe2O3@Y2O3 yolk-shell nanoreactors as chemical looping oxygen carriers** *APPLIED CATALYSIS B-ENVIRONMENT AND ENERGY*
  Fan, Q., Tan, M., Yao, B., Saqline, S., Tao, L., He, Q., Liu, W.
  2024; 350

- **Investigation of barium iron oxides for CO2 capture and chemical looping oxygen uncoupling** *APPLICATIONS IN ENERGY AND COMBUSTION SCIENCE*
  Saqline, S., Wang, H., Fan, Q., Donat, F., Muller, C., Liu, W.
  2024; 17

- **Coupling chemical looping air separation with the Allam cycle-A thermodynamic analysis** *JOURNAL OF CLEANER PRODUCTION*
  Saqline, S., Yang, L., Romagnoli, A., Liu, W.

2023; 418

- **Breaking the Stoichiometric Limit in Oxygen-Carrying Capacity of Fe-Based Oxygen Carriers for Chemical Looping Combustion using the Mg-Fe-O Solid Solution System** *ACS SUSTAINABLE CHEMISTRY & ENGINEERING*
  Fan, Q., Huang, C., Xi, S., Yan, Y., Huang, J., Saqline, S., Tao, L., Dai, Y., Borgna, A., Wang, X., Liu, W.
  2022; 10 (22): 7242-7252
- **CO₂ hydrogenation to methanol on tungsten-doped Cu/CeO₂ catalysts** *APPLIED CATALYSIS B-ENVIRONMENT AND ENERGY*
  Yan, Y., Wong, R., Ma, Z., Donat, F., Xi, S., Saqline, S., Fan, Q., Du, Y., Borgna, A., He, Q., Muller, C. R., Chen, W., Lapkin, et al
  2022; 306
- **Coupling chemical looping combustion of solid fuels with advanced steam cycles for CO2 capture: A process modelling study** *ENERGY CONVERSION AND MANAGEMENT*
  Saqline, S., Chua, Z., Liu, W.
  2021; 244
- **Kinetic studies on the synthesis of fuel additives from glycerol using CeO₂-ZrO₂ metal oxide catalyst** *BIOFUEL RESEARCH JOURNAL-BRJ*
  Kulkarni, R. M., Britto, P. J., Narula, A., Saqline, S., Anand, D., Bhagyalakshmi, C., Herle, R.
  2020; 7 (1): 1100-1108
- **High performance Ni catalysts prepared by freeze drying for efficient dry reforming of methane** *APPLIED CATALYSIS B-ENVIRONMENT AND ENERGY*
  Huang, J., Yan, Y., Saqline, S., Liu, W., Liu, B.
  2020; 275