

GOLD OPEN ACCESS

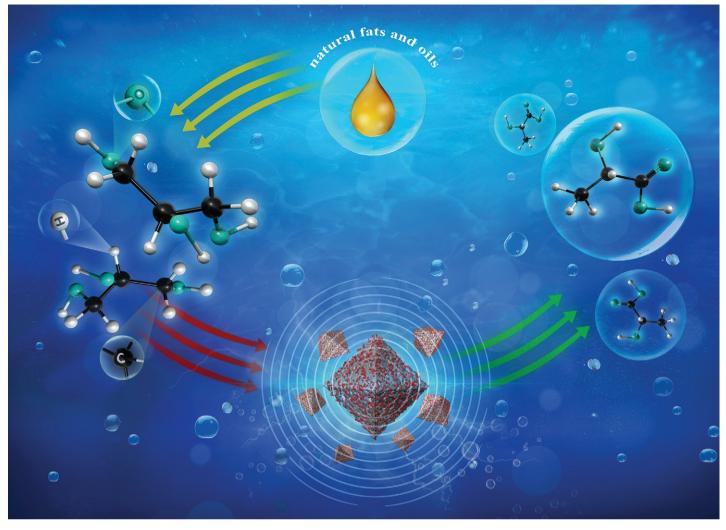
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Showcasing research from Professor Sansan Yu's laboratory, College of Chemical Engineering, Shenyang University of Chemical Technology, Shenyang, China.

Fabrication of nano $\mathrm{Cu}/\mathrm{Cu_2O}@\mathrm{C}$ for the conversion of glycerol to lactic acid

The catalyst calcined at 450 °C ($\rm Cu/Cu_2O@C-450$) exhibits the largest $\rm Cu^0$ lattice spacing (0.221 nm), achieving 100% glycerol conversion with 89.89% lactic acid selectivity, while maintaining over 80% selectivity after 8 cycles. DFT calculations reveal enhanced adsorption energy and differential charge redistribution, confirming the optimized electronic structure.

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