



**Showcasing research from Professor Wang's laboratory,
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Photon and phonon powered photothermal catalysis

Photothermal catalysis has emerged as a groundbreaking approach to driving chemical reactions with photons and phonons. This method uniquely combines photonic and phononic elements of the light, offering enhanced reaction rates and tunable selectivity under moderate conditions. This work delves into the fundamental mechanisms of photothermal catalysis, focusing on the conversion processes and synergistic effect of photons and phonons, including key application advancements. The fundamental understanding of the role of photons and phonons could guide future investigations into mechanisms and application development of photothermal catalysis.

As featured in:



See Wenguang Tu, Lu Wang *et al.*,
Energy Environ. Sci., 2024, **17**, 4461.