Light-Driven Plasmonic Switches

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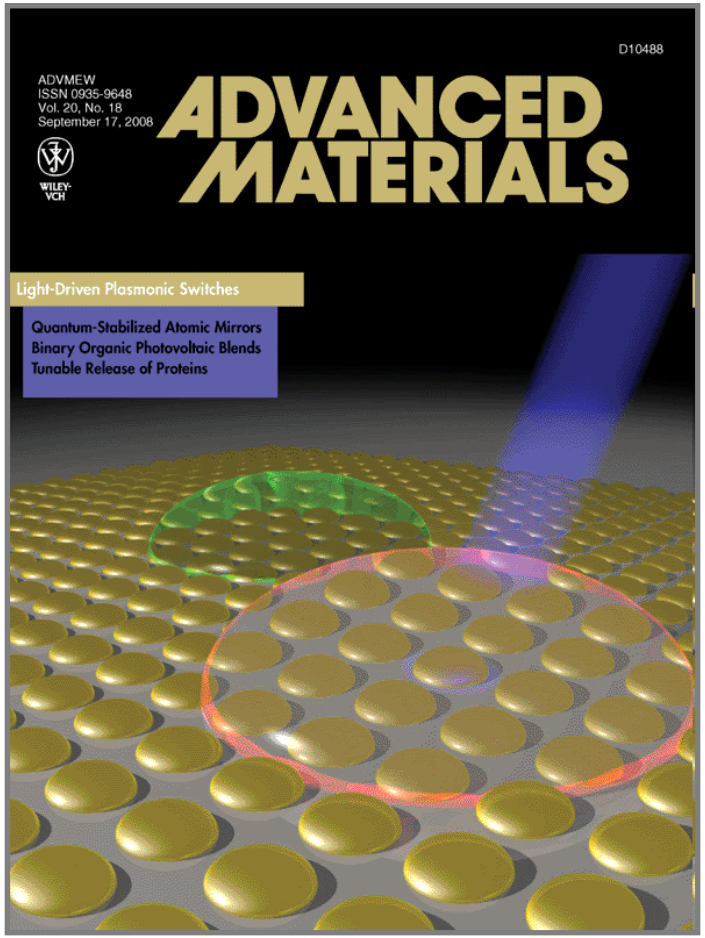
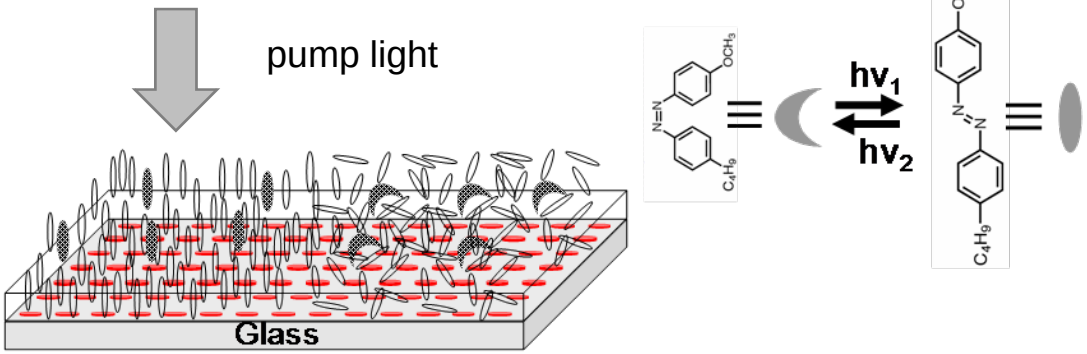


This NNIN-enabled research demonstrates a new class of plasmonic switches driven by light. The switches use the photoinduced phase transition of azobenzene-doped liquid crystals to alter the localized surface plasmon resonances of gold nanodisk arrays. These switches contribute to the emerging field of plasmonics.



Hsiao, et al., Advanced Materials, 20, 3258 (2008).

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A new type of light-driven plasmonic switches that enables development of ultra-small plasmonic integrated circuits.