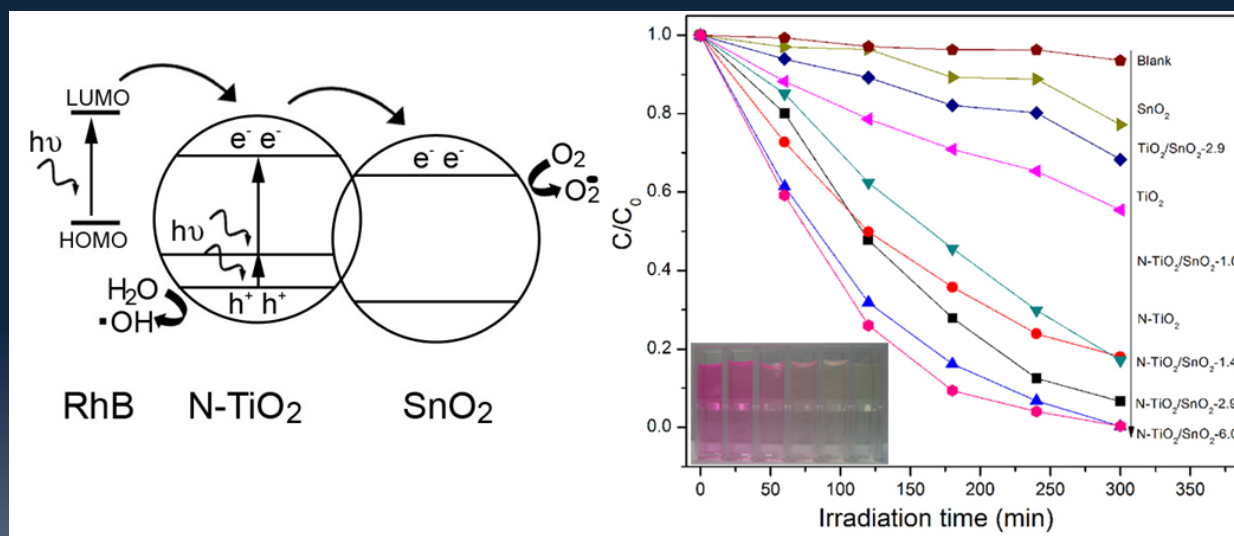


# Electrospray Synthesis of Composite Photocatalysts with Controlled Architectures

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Nitrogen-doped TiO<sub>2</sub>/SnO<sub>2</sub> composites with controllable Ti-to-Sn content were synthesized and evaluated for their potential as a new class of Z-scheme photocatalysts wherein the N-TiO<sub>2</sub> unit is anticipated to enhance visible light absorption while composite formation reduces electron-hole recombination compared to standards. Under UV-visible irradiation, these composites did not operate as true z-scheme photocatalysts, with N-TiO<sub>2</sub> outperforming the composites. But with visible light illumination, the N-TiO<sub>2</sub>/SnO<sub>2</sub> composites with low SnO<sub>2</sub> content outperformed the standards and was attributed to dye degradation via the sensitization pathway.