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Deposition of Pd nanoparticles on TiO_2 using a $Pd(acac)_2$ precursor for photocatalytic oxidation of CO under UV-LED irradiation

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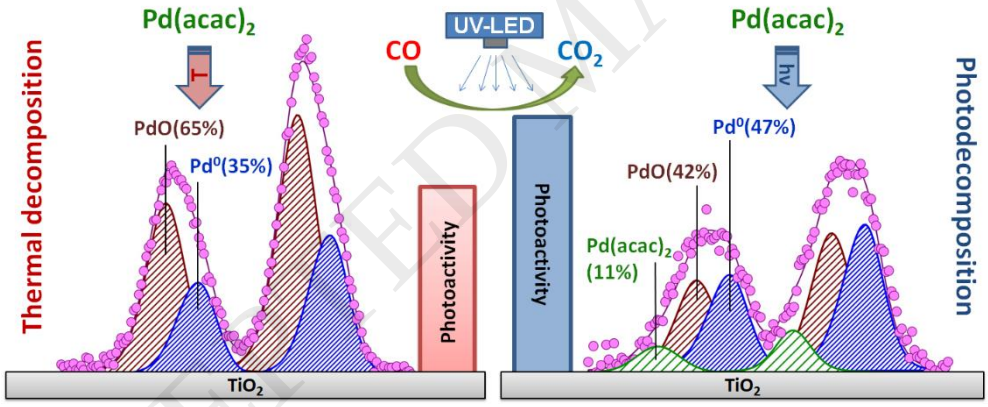
Graphical abstract



Highlights

- TiO_2 supported with Pd nanoparticles completely oxidizes CO at room temperature
- UV irradiation substantially increases CO oxidation rate compared to dark oxidation
- Decomposition of $Pd(acac)_2$ results in the deposition of Pd^0 and PdO on TiO_2 surface