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**UV-LED** irradiation

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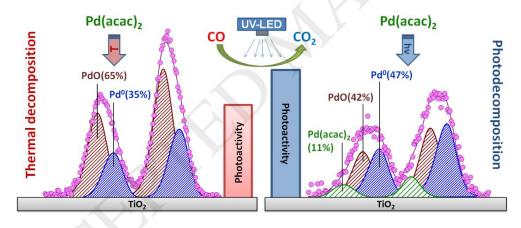
# Deposition of Pd nanoparticles on TiO<sub>2</sub> using a Pd(acac)<sub>2</sub> precursor for photocatalytic oxidation of CO under UV-LED irradiation

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#### Graphical abstract



# **Highlights**

- $\bullet$  TiO<sub>2</sub> 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)<sub>2</sub> results in the deposition of Pd<sup>0</sup> and PdO on TiO<sub>2</sub>
  surface

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