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# Efficient Adsorption and Sustainable Degradation of Gaseous Acetaldehyde and O-xylene using rGO-TiO<sub>2</sub> Photocatalyst

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## KEYWORDS:

rGO-TiO<sub>2</sub>; Photocatalysis; Acetaldehyde; O-xylene; VOCs removal

## Abstract:

Two types of volatile organic chemicals (VOCs), acetaldehyde and o-xylene, were selected to probe the different adsorption and photodegradation mechanism of gaseous photocatalysis. Reduced graphene oxide (rGO)-TiO<sub>2</sub> nanocomposites were prepared by facile solvothermal process to perform the photocatalytic reactions. In the experiments, the removal efficiencies of the acetaldehyde and o-xylene at 80

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