# Photocatalytic degradation of methylene blue over $TiO_2$/SAPO-35 heterojunction

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Abstract:

LEV type topology microporous silico alumino phosphate (SAPO)-35 and anatase form of $TiO_2$ are successfully synthesized using hydrothermal method. $TiO_2$/SAPO-35 nanocomposites were subsequently prepared using sol-gel method by different weight ratios. Prepared materials were characterized by various analytical techniques in detail. In this work, we explored the photocatalytic performances of methylene blue under direct sunlight by the prepared $TiO_2$/SAPO-35 nanocomposites. Interestingly 1:1 weight ratio composite is showing better activity than the pure $TiO_2$ and pure SAPO-35.

Keywords: Anatase $TiO_2$, Microporous SAPO-35, $TiO_2$/SAPO-35, sol-gel method, Methylene blue, photo-catalysis.