## Preparation of TiO<sub>2</sub> nano particles by modified sol-gel method with ionic liquid and its catalytic application

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Titanium dioxide ( $\text{TiO}_2$ , titania) has received wide spread attention due to its catalysis applications such as photocatalysis and catalyst support. In this work, thermally stable  $\text{TiO}_2$  particles with high surface area and anatase phase were synthesized using modified sol-gel method with acetic acid and small amount of ionic liquid (IL). Furthermore,  $\text{Pt/TiO}_2$  catalyst was prepared and tested to investigate the catalytic performance for water gas shift reaction.