

**National Chemistry Olympiad 2011**

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- 29** Introduction of two drops of concentrated sulfuric acid,  $\text{H}_2\text{SO}_4$ , speeds up an esterification reaction. Introduction of a piece of platinum metal, Pt, speeds up the reaction of  $\text{H}_2$  and  $\text{O}_2$  gas. Which of the following statements is true?
- (A) Pt is a homogeneous catalyst; sulfuric acid is a heterogeneous catalyst      (B) Pt is a heterogeneous catalyst; sulfuric acid is a homogeneous catalyst  
(C) Pt and sulfuric acid are both heterogeneous catalysts      (D) Pt and sulfuric acid are both homogeneous catalysts
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