

Development of fibrous mesoporous silica for catalytic reaction : A short review

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ABSTRACT

The activity of the catalyst is markedly influenced by the physical and chemical properties of the support materials. Designing and developing excellent features of support materials is a crucial approach since it could directly affect the quality of metal active sites dispersion, strength of metal-support interaction, and quantity of oxygen vacancies, thus improving the catalytic performance and stability. Several modifications on support synthesis have been reported and the alteration into fibrous mesoporous silica material has attracted considerable attention over the recent years. Thus, the latest development of fibrous mesoporous silica for catalytic reaction has been reviewed through this work. Additionally, the governing factors of fibrous mesoporous silica in catalytic reaction was discussed in this review article.

KEYWORDS

Confinement; Dendritic fibrous; Dispersion; Mesoporous silica; Tunable pore size

ACKNOWLEDGMENT

This study was supported by Universiti Malaysia Pahang (UMP) via PGRS180365.