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### ACCEPTED MANUSCRIPT

# Synthesis of Glycerol Carbonate from Glycerol and Dimethyl Carbonate Catalyzed by Calcined Silicates

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#### **Graphical abstracts**

#### Transesterification of glycerol with DMC

# **Highlights**

- •Silicate catalysts were first time used for synthesis of glycerol carbonate by transesterification of glycerol with dimethyl carbonate.
- •Sodium silicate calcined at 200 °C (Na<sub>2</sub>SiO<sub>3</sub>-200) has the satisfactory performance in transesterification reaction of glycerol with dimethyl carbonate.
- Na<sub>2</sub>SiO<sub>3</sub>-200 showed good reusability and high stability in transesterification reaction of glycerol with dimethyl carbonate.

Abstract

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