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**Cheng et al.**

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(54) **PREPARATION OF  
ORGANIC-FUNCTIONALIZED  
MESOPOROUS SILICA WITH PLATELET  
MORPHOLOGY AND SHORT  
MESOCHANNELS**

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(52) **U.S. Cl.** ..... **423/335; 423/324**  
(58) **Field of Classification Search** ..... **423/335,**  
**423/324**

See application file for complete search history.

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(57) **ABSTRACT**

A facile synthesis route for preparing SBA-15 silica of plate-  
let shape and very short mesochannels was developed by  
introducing a small amount of Zr(IV) ions in the first synthe-  
sis solution. The synthesis route can be easily extended to  
prepare SBA-15 materials with various organic functional  
groups in one pot.

**20 Claims, 41 Drawing Sheets**