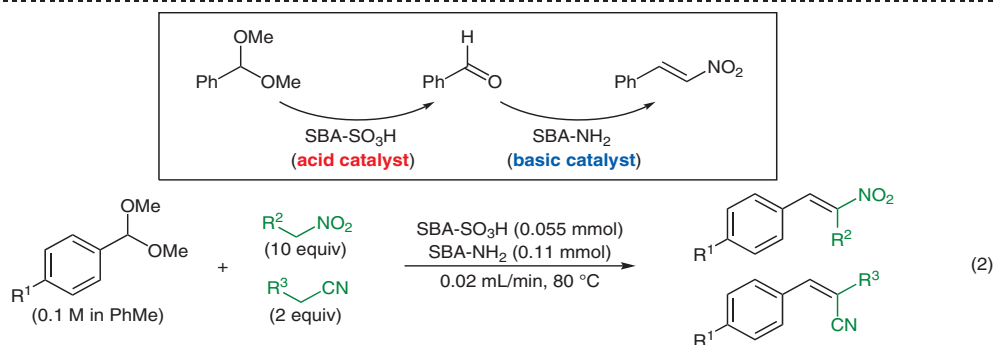
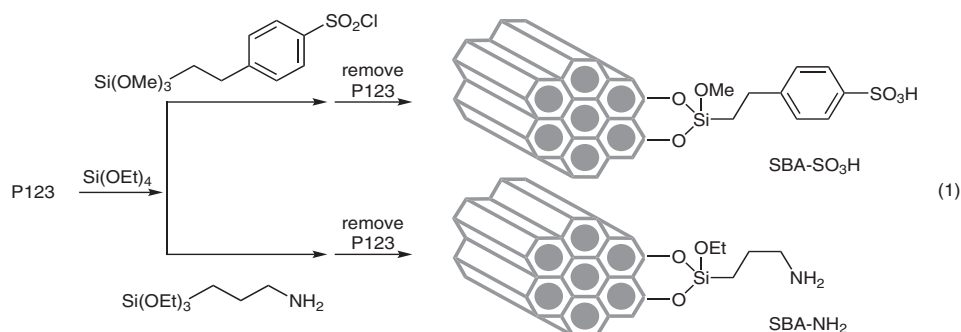
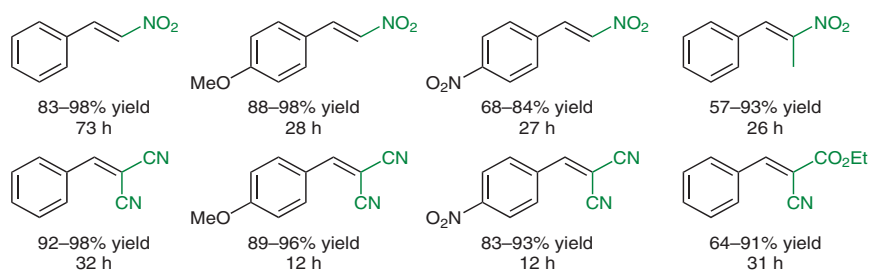


## Single-Flow System for Acid Hydrolysis and Base Condensation



### Selected results:



**Significance:** Two types of SBA-15-based mesoporous silica bearing sulfonic acid groups (SBA-SO<sub>3</sub>H) and amine groups (SBA-NH<sub>2</sub>), respectively, were prepared according to equation 1. Acid hydrolysis of acetals and subsequent C–C bond-forming condensation (i.e., a Henry reaction and a Knoevenagel reaction) were achieved in a flow system using a single packed-bed reactor charged with SBA-SO<sub>3</sub>H and SBA-NH<sub>2</sub> (eq. 2).

**Comment:** SBA-SO<sub>3</sub>H and SBA-NH<sub>2</sub> were characterized by TEM, FT-IR, N<sub>2</sub> adsorption and desorption, BET, TGA, and TPD analyses. The authors also prepared a catalyst functionalized with both SO<sub>3</sub>H and NH<sub>2</sub> groups, SBA-SO<sub>3</sub>H/NH<sub>2</sub>, but its catalytic activity was inferior to that of a physical mixture of SBA-SO<sub>3</sub>H and SBA-NH<sub>2</sub>.