B. IÇLI, N. CHRISTINAT, J. TÖNNEMANN, C. SCHÜTTLER, R. SCOPELLITI, K. SEVERIN* (ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE, SWITZERLAND)

Synthesis of Molecular Nanostructures by Multicomponent Condensation Reactions in a Ball Mill *J. Am. Chem. Soc.* **2009**, *131*, 3154-3155.

Syntheses in a Ball Mill

Significance: The authors report the syntheses of cage-like molecules represented by **1** in the scheme above to demonstrate the utility of solid-state reactions in a ball mill. The synthesis of **1** involves the formation of 18 new covalent bonds and proceeds very efficiently in a ball mill.

Comment: The authors report that the solvent-free synthesis of **1** proceeds in 94% yield in a ball mill while the same reaction in ethanol and tetrahydrofuran gives only 56% and 24% yield, respectively.

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Synthesis of Materials and Unnatural Products

Key words

ball mill

multicomponent condensation

cage molecules

