

**A selective synthesis of glycerol carbonate from glycerol and urea over Sn(OH)₂:
a solid and recyclable in situ generate catalyst**

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Supporting Information

Figure Legends

Fig. SM 1 Chromatogram of an aliquot from urea glycerolizes reaction, diluted in methanol.

Fig. SM 2 Thermal analyses curves of synthesized and recovered Sn(OH)₂

Fig. SM 3 Chromatogram and mass spectra of carbamates detected by GC-MS

Fig. SM 4 Composition of urea and glycerol in the vapor and liquid phase in urea glycerolizes reaction.

Fig SM5 Powders XRD diffraction of SnCl₂ and Sn(OH)₂ catalyst

Tables

Table SM1. Structural properties of synthesized and recovered Sn(OH)₂

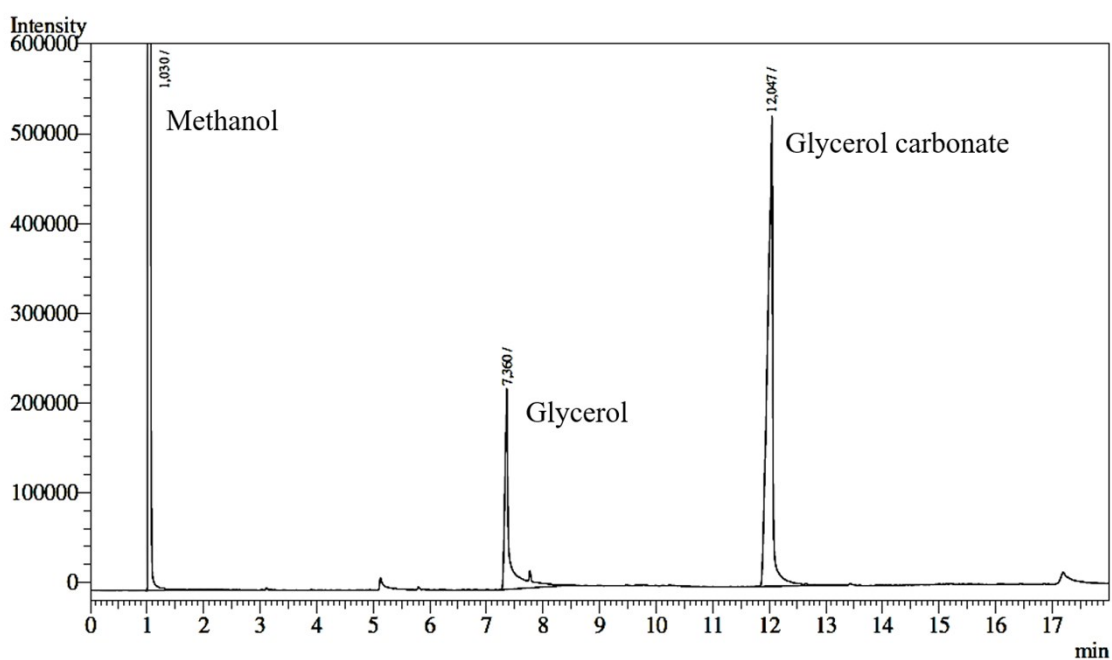


Fig. SM 1 Chromatogram of an aliquot from urea glycerolizes reaction, diluted in methanol.

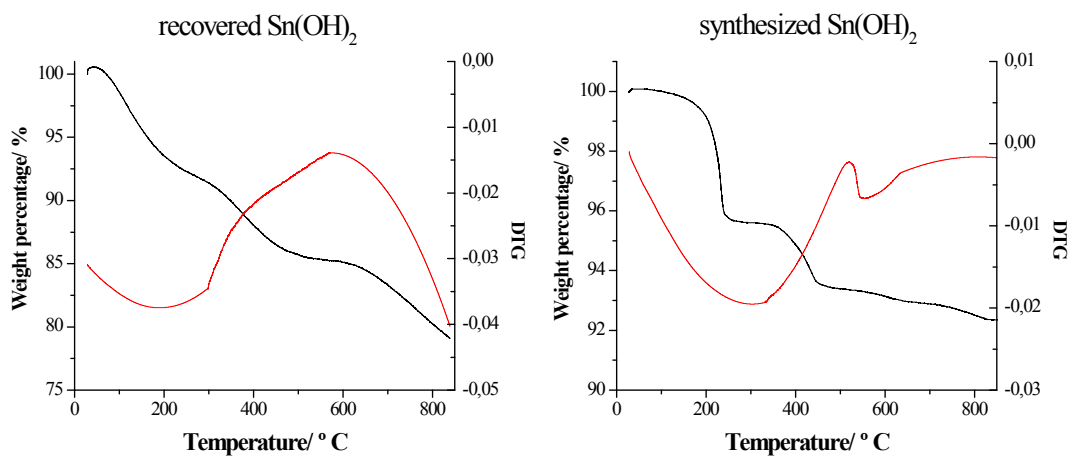


Fig. SM 2. Thermogravimetric curves of synthesized and recovered Sn(OH)_2

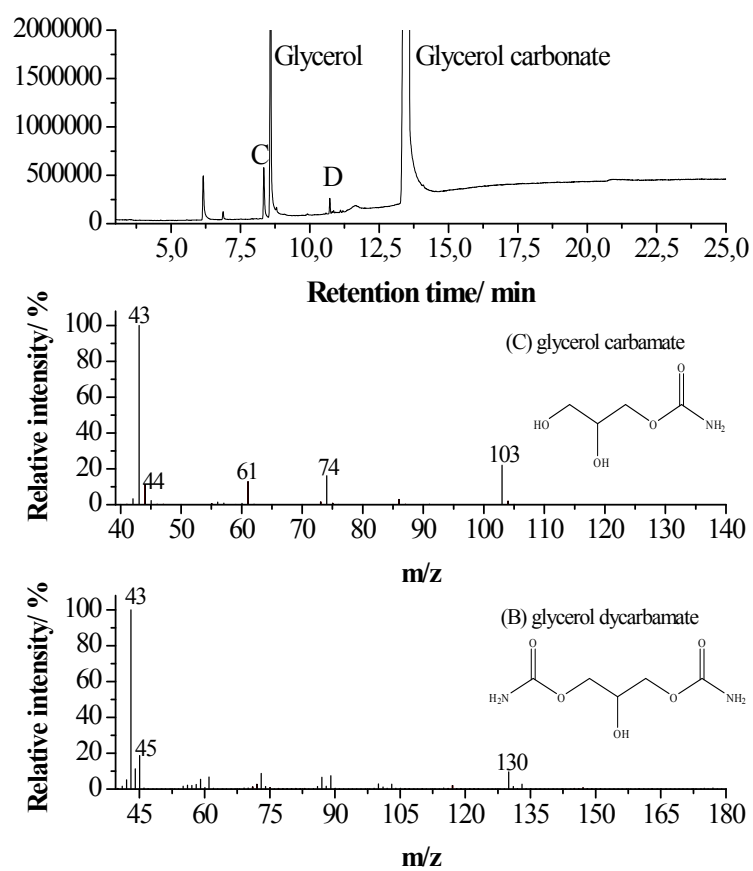


Fig. SM 3 Chromatogram and mass spectra of carbamates detected by GC-MS.

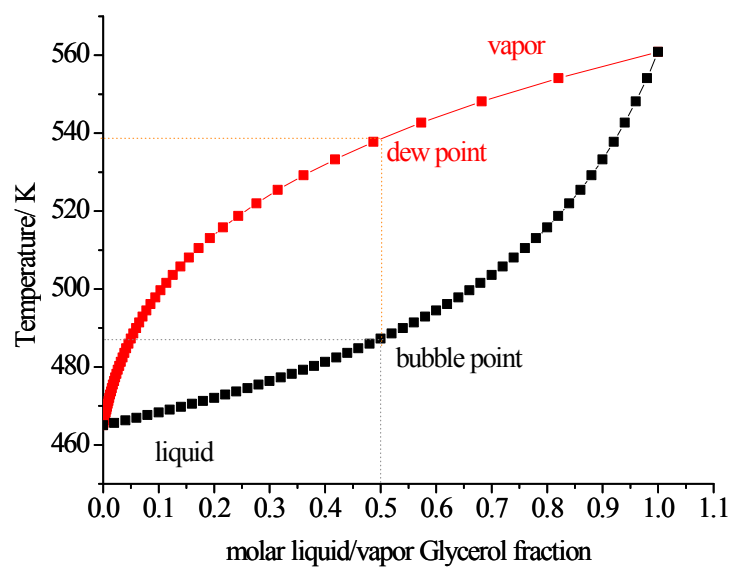


Fig. SM 4 Composition of urea and glycerol in the vapor and liquid phase in urea glycerolizes reaction.

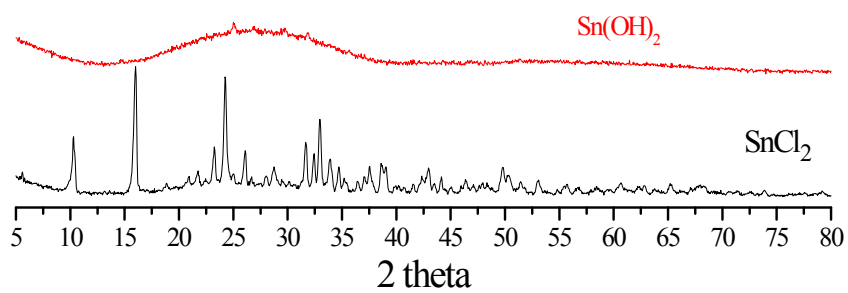


Fig SM5 Powders XRD diffraction of SnCl₂ and Sn(OH)₂ catalyst

Table SM1 Structural properties of Sn(OH)₂ synthesized and recovered.

Samples	Surface area (m ² /g)	Pore volume (cm ³ /g)	Pore size (nm)
	BJH method		DFT method
Sn(OH) ₂ (recovery)	18.36	0.10	3.90
Sn(OH) ₂ (synthesized)	16.40	0.03	1.39