

Direct Synthesis of Calcium Lactate through the Reaction of Glycerol with Calcium Hydroxide Catalyzed by Bimetallic AuCu/SiO₂ Nanocatalysts

Changqing Li, Xinyue Cui, Aili Wang *, Hengbo Yin *, Yuting Li, Qiao Lin and Junjie Guo

Faculty of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang 212013, China; licup@163.com (C.L.); xycui51@163.com (X.C.)

* Correspondence: alwang@ujs.edu.cn (A.W.); yin@ujs.edu.cn (H.Y.)

Supporting materials

Table S1 Glycerol conversion rates under various reaction conditions catalyzed by the Au_{0.5}Cu₁₀/SiO₂ catalyst

Reaction conditions				Glycerol conversions (%)	$-r_A$ (mol·L ⁻¹ ·h ⁻¹)
Glycerol concentrations (mol·L ⁻¹)	Ca(OH) ₂ /glycerol mole ratios	Reaction temperatures (°C)	Catalyst contents (g·L ⁻¹)		
2	0.5:1	200	9.2	39	1.55
2	0.55:1	200	9.2	46	1.85
2	0.6:1	200	9.2	53	2.13
2	0.8:1	200	9.2	65	2.61
2	0.6:1	160	9.2	16	0.65
2	0.6:1	180	9.2	26	1.03
2	0.6:1	230	9.2	79	3.15
0.5	0.6:1	200	9.2	33	1.32
1.0	0.6:1	200	9.2	43	1.71
3.0	0.6:1	200	9.2	63	2.51
2	0.6:1	200	1.84	16	0.63
2	0.6:1	200	4.6	27	1.08
2	0.6:1	200	6.44	37	1.49

The reaction time is 0.5 h.