

Supporting information

One-pot selective hydroconversion of levulinic acid to 2-methyltetrahydrofuran catalyzed by Ni-based catalysts derived from phyllosilicate

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Table S1 The summary of the hydrogenation of LA/GVL to 2-MTHF over base metal catalysts in representative literatures.

Entry Ref.	Catalyst	Substrate	Reaction conditions	Conversion	Selectivity	Productivity (mmol·2-MTHF/h·g·cat.
1	Ni(8)–Cu(72)/SiO ₂	LA	265 °C, 2.5 MPa	100%	89%	3.93 mmol/h/g
2	30Cu/ZrO ₂ –OG	GVL	240 °C, 6.0 MPa	98%	93%	7.59 mmol/h/g
3	23Ni–12Cu/Al ₂ O ₃	LA	250 °C, 7.0 MPa	100%	56%	9.64 mmol/h/g
4	23Ni–12Cu/Al ₂ O ₃	LA	250 °C, 4.0 MPa	100%	80%	3.45 mmol/h/g
5	20%Ni–Cu/Al ₂ O ₃ –cp450	GVL	230 °C, 5.0 MPa	80%	80%	12.78 mmol/h/g
6	10%Cu–10%Ni/Al–Zr(9)	LA	220 °C, 3.0 MPa	100%	99.8%	4.30 mmol/h/g
7	Ni/SiO ₂	LA	250 °C, 3.0 MPa	99.9%	56.2%	4.84 mmol/h/g
8	10Cu–5Ni/Al ₂ O ₃	LA	180 °C, 4.0 MPa	100%	98%	2.04 mmol/h/g
9	NiSi–SL	LA	220 °C, 5.0 MPa	100%	62%	5.34 mmol/h/g

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