

# Hydrogen-Free Deoxygenation of Oleic Acid and Industrial Vegetable Oil Waste on CuNiAl Catalysts for Biofuel Production

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**Table S1.** Calculated  $d$  values from the reflection peaks ( $2\theta < 30^\circ$ ) of the NiAl and CuNiAl LDHs.

Sample	Reflections										
	(003)		(006)			(009)			(0012)		
	2θ°	d(Å)	2θ°	d(Å)	2d(Å)	2θ°	d(Å)	3d(Å)	2θ°	d(Å)	4d(Å)
NiAl	6.37	13.87	12.70	6.96	13.93	19.09	4.65	13.94	25.47	3.49	13.98
NiCuAl-1	6.37	13.86	12.73	6.95	13.89	19.10	4.64	13.93	25.48	3.49	13.97
NiCuAl-2	6.34	13.94	12.68	6.98	13.95	19.07	4.65	13.95	25.42	3.50	14.00
NiCuAl-3	6.35	13.92	12.70	6.97	13.93	19.07	4.65	13.95	25.44	3.50	13.99

**Table S2.** Thermogravimetric analyses: comparison between theoretical and experimental mass loss percentages for the NiAl and CuNiAl LDHs.

Sample	Mass loss (%)		Difference (%)
	Experimental	Theoretical	
NiAl-LDH	48.8	52.1	6.3
0.1CuNiAl-LDH	51.6	51.6	0.1
0.2CuNiAl-LDH	49.7	51.5	3.6
0.4CuNiAl-LDH	50.4	50.7	0.5