

Supplementary information:

Influence of La_2O_3 composition in $\text{MgO-La}_2\text{O}_3$ mixed oxide supported Co catalysts on
hydrogen yield in glycerol steam reforming

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Table S1. Liquid products distribution over CML1 catalyst

Temp (°C)	Glycerol Convn. (%)		Liquid products (m.mol)					
	Gases	Liquid	MeOH	EtOH	2-PrOH	EG	1,2 PD	1,3 PD
500	18.60	81.40	9.64	9.40	0.83	3.98	0.81	1.14
600	37.71	62.29	7.37	7.19	0.64	3.04	0.62	0.87
700	44.42	55.58	6.58	6.42	0.57	2.71	0.55	0.78

Table S2. Liquid products distribution over the CML2 catalyst

Temp (°C)	Glycerol Convn. (%)		Liquid products (m.mol)					
	Gases	Liquid	MeOH	EtOH	2-PrOH	EG	1,2 PD	1,3 PD
500	50.80	49.20	5.82	5.68	0.50	2.40	0.49	0.69
600	59.58	40.42	4.79	4.67	0.41	1.97	0.40	0.56
700	82.4	17.6	2.08	2.03	0.18	0.86	0.18	0.25

Table S3. Liquid products distribution over the CML3 catalyst

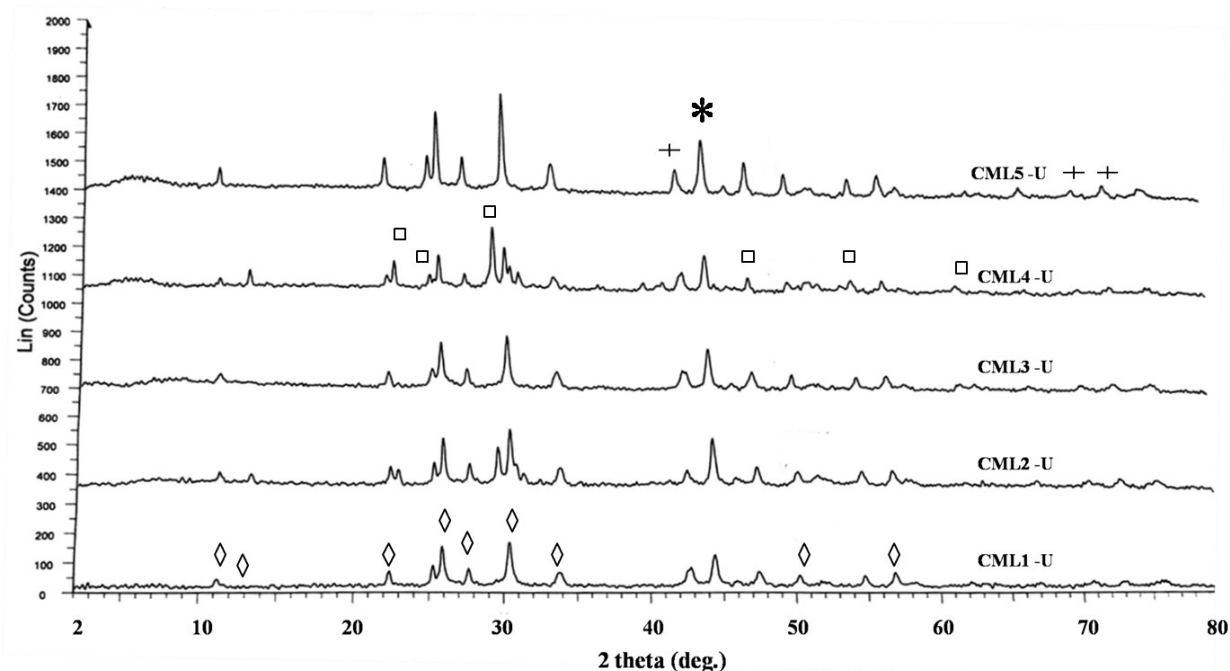
Temp (°C)	Glycerol Convn. (%)		Liquid products (m.mol)					
	Gases	Liquid	MeOH	EtOH	2-PrOH	EG	1,2 PD	1,3 PD
500	71.62	28.38	3.36	3.28	0.29	1.39	0.28	0.40
600	85.42	14.58	1.73	1.68	0.15	0.71	0.15	0.20
700	99.98	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Table S4. Liquid products distribution over the CML4 catalyst

Temp (°C)	Glycerol Convn. (%)		Liquid products (m.mol)					
	Gases	Liquid	MeOH	EtOH	2-PrOH	EG	1,2 PD	1,3 PD
500	26.55	73.45	6.96	9.70	0.75	3.59	0.73	0.59
600	44.26	55.74	5.28	7.36	0.57	2.72	0.56	0.45
700	59.20	40.80	3.86	5.39	0.42	1.99	0.41	0.33

Table S5. Liquid products distribution over the CML5 catalyst

Temp (°C)	Glycerol Convn. (%)		Liquid Compositions (m.mol)					
	Gases	Liquid	MeOH	EtOH	2-PrOH	EG	1,2 PD	1,3 PD
500	35.48	64.52	7.64	7.45	0.66	3.15	0.64	0.90
600	39.72	60.28	7.14	6.96	0.62	2.94	0.60	0.84
700	61.93	38.07	4.51	4.40	0.39	1.86	0.38	0.53

Fig. S1. Spent catalysts XRD of CML x (X=1, 2, 3,4 and 5). *:Co^o; + : MgO;◇:La₂O₂CO₃; □: La₂O₃.