

Solvent –free oxidation of dec-1-ene using gold/graphite catalyst using an *in situ* generated oxidant.

Supplementary material

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Table S1 Effect of the addition of aldehydes on the oxidation of hex-1-ene

Aldehyde	Aldehyde amount (mg)	Conversion %	Epoxide selectivity %
Benzaldehyde	0	2	11.4
	100	3.4	56.7
	300	4.8	73.1
	500	5.9	76.2
butaldehyde	0	2	11.4
	100	2.3	42
	300	3.1	61.1
	500	4.3	71.4

Reaction condition: hex-1-ene (10 ml), Au/graphite (0.12g), TBHP (0.064×10^{-2} mol), 40 °C, 24h.

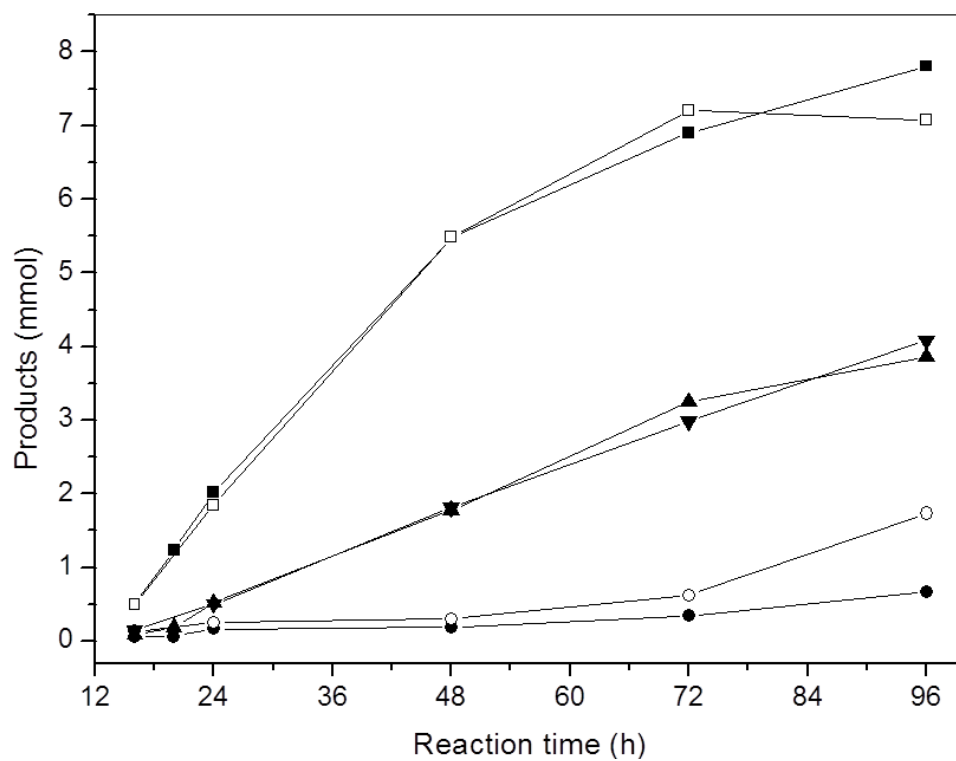


Figure S1 Effect of the addition of acetophenone on the oxidation of dec-1-ene. Key: ■ epoxide without acetophenone □ epoxide with acetophenone ● 1,2-decanediol without acetophenone ○ 1,2-decanediol with acetophenone ▲ C₇₋₉ acids without acetophenone ▼ C₇₋₉ acids with acetophenone. Reaction conditions: Dec-1-ene 53 mmol, AIBN 35 μmol, 1wt% Au/Graphite 0.10 g, acetophenone 1.4 mmol, 90 °C