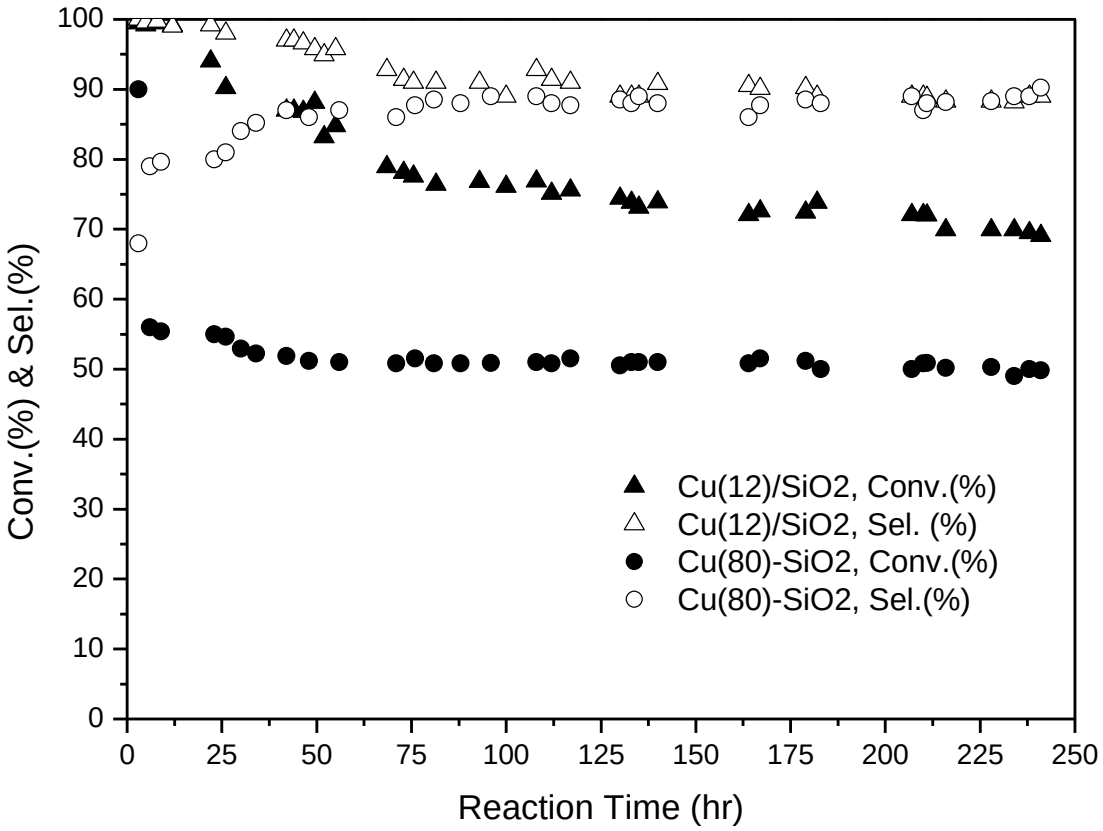

Fig. S1. Changes in BDO conversion and selectivity to GBL with reaction time over 0.15g of Cu(80)-SiO_2 and 1.0g of Cu(12)/SiO_2 at 250^{o}C and 1 atm. Reaction conditions: BDO feed rate, 2.0 cm^3/hr; N_2 carrier gas flow rate, 45 cm^3/min.

Table S1. Cu Surface Area of Copper-Silica Catalyst

Catalyst	Cu Surface Area	
	Cu m^2/g catalyst	Cu m^2/g Cu
Cu(12)/SiO_2 (Fresh)	3.9	32.5
Cu(12)/SiO_2 (used)	0.9	7.5
Cu(80)-SiO_2 (Fresh)	5.9	7.4
Cu(80)-SiO_2 (used)	3.1	3.9

The metallic copper surface area was determined by the nitrous oxide (N_2O) titration method for all the samples. The samples were reduced at 300 °C using 10% H_2 in inert gas. And then Pure 10% N_2O with a flow rate of 60 ml/min was allowed to pass over the sample at 60^oC for 2 h. It was assumed that only the surface copper was oxidized to Cu_2O under these conditions by the surface reaction, $N_2O(g) + 2Cu^0(s) \rightarrow (Cu–O–Cu)(s) + N_2(g)$. The copper surface area of the catalyst was determined from the amount of N_2O consumed, which was analyzed with a thermal conductivity detector (TCD). The experimental error in Cu surface areas was about 5% using this technique.