Figure S1.

a) 2μm, 4 μm 20 μm



1. 2 μm 4 μm 20 μm



1. 10 μm, 20 μm 50 μm



1. 10 μm, 20 μm 50 μm



**Fig S1.** SEM images of a) catalyst V, b) VI, c) VIII and d) VIII. Notation: V: 3 wt% CuO+2 wt% ZnO/γ-Al2O3, VI:3 wt% CuO+2 wt% Cr2O3/γ-Al2O3, VII: 3 wt% CuO+2 wt% ZnO/γ-Al2O3 (sc), and VIII: 3 wt% CuO+2 wt% Cr2O3 /γ-Al2O3(sc).