

### Support information

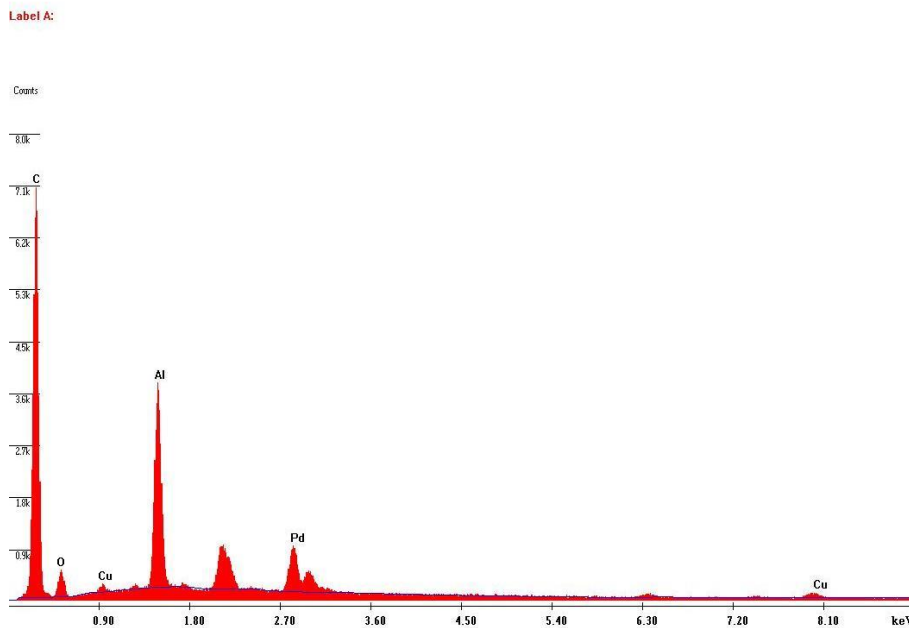


Figure S1 EDX pattern of Pd-Cu/ MWCNTs.

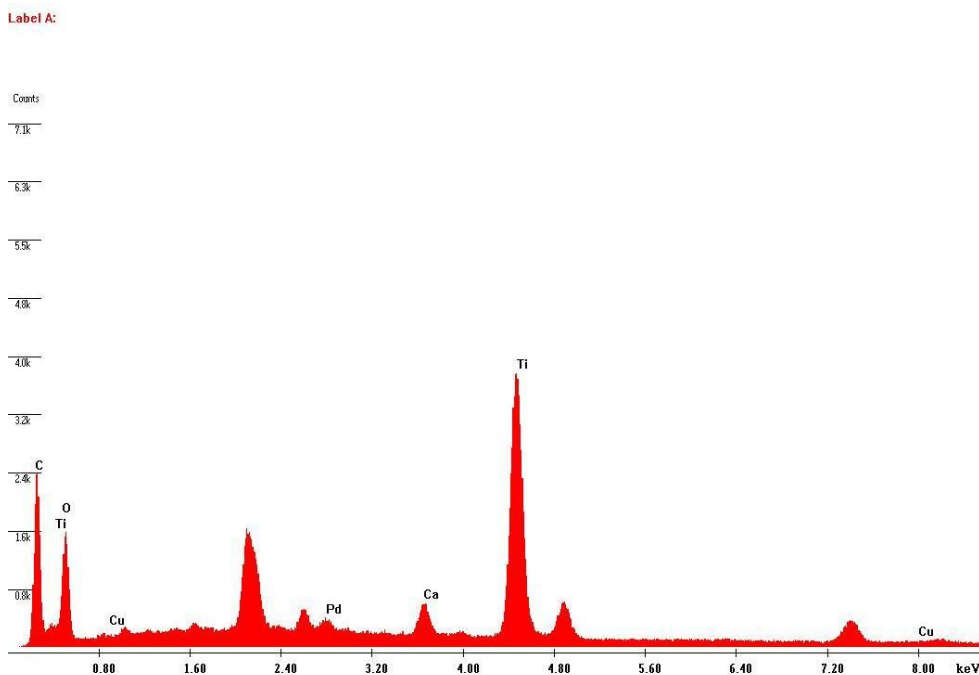


Figure S2 EDX pattern of Pd-Cu/TiO<sub>2</sub>.

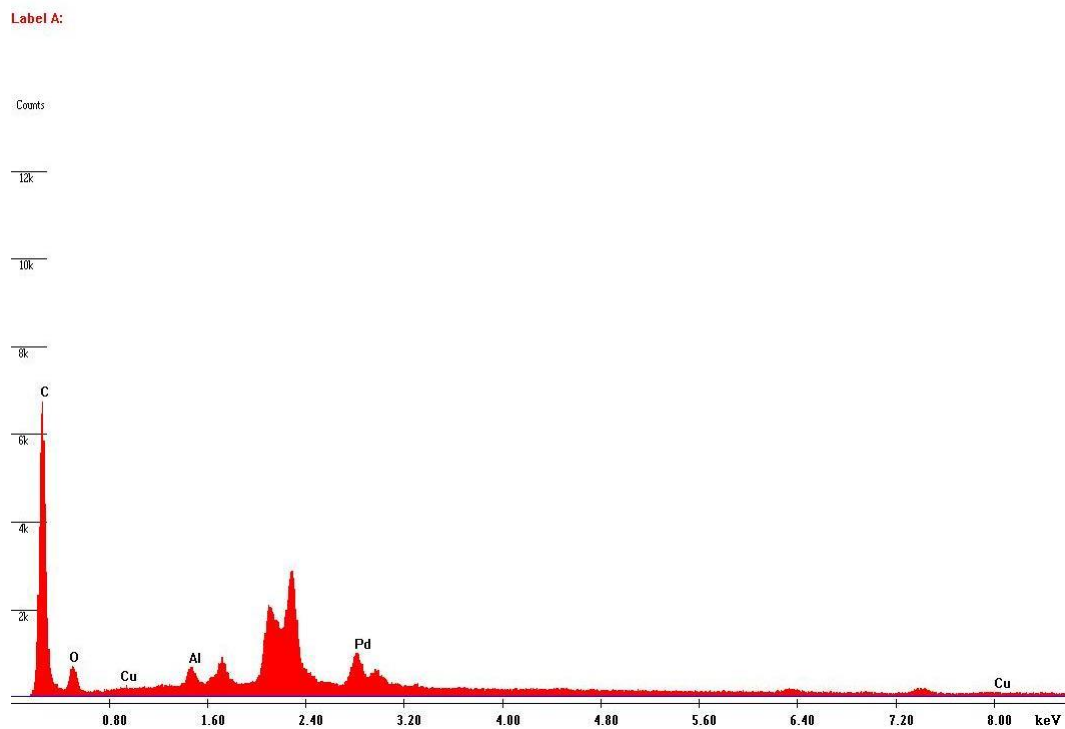
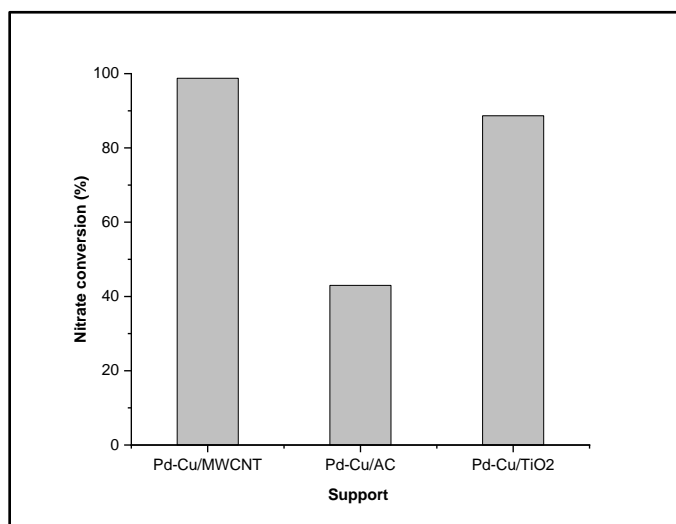


Figure S3 EDX pattern of Pd-Cu/AC.



Figure S4 EDX elemental mappings of Pd-Cu nanoparticles on MWCNTs.



**Figure S5** Nitrate conversion (%) after 2 h of catalytic reduction using different supports ( $C_{NO_3^-} = 30 \text{ ppm}$ ,  $C_{catalyst} = 0.5 \text{ g/L}$ ,  $pH = 7$ )