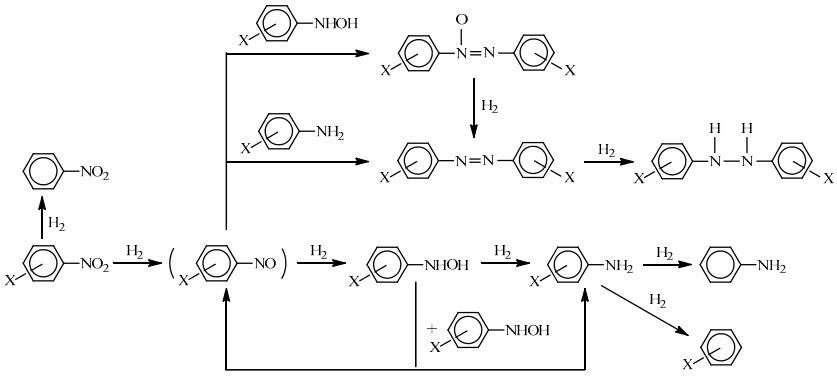

Scheme S1. The hydrogenation reaction pathways of CNB.

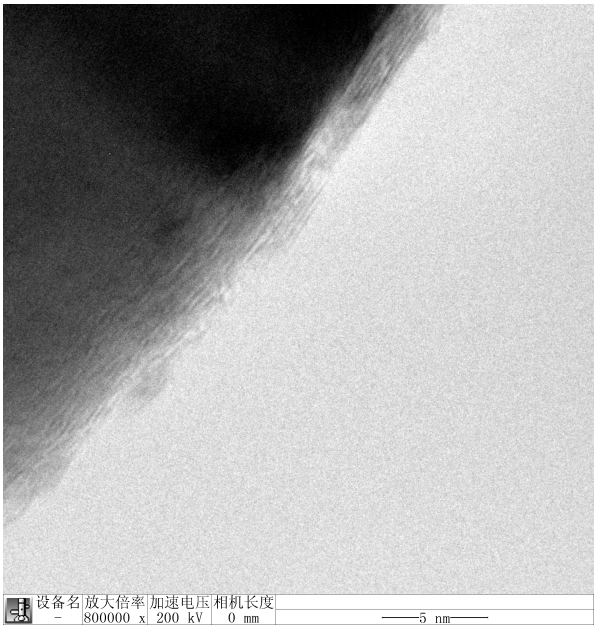

Figure S1. HRTEM image of Ni/TMS.

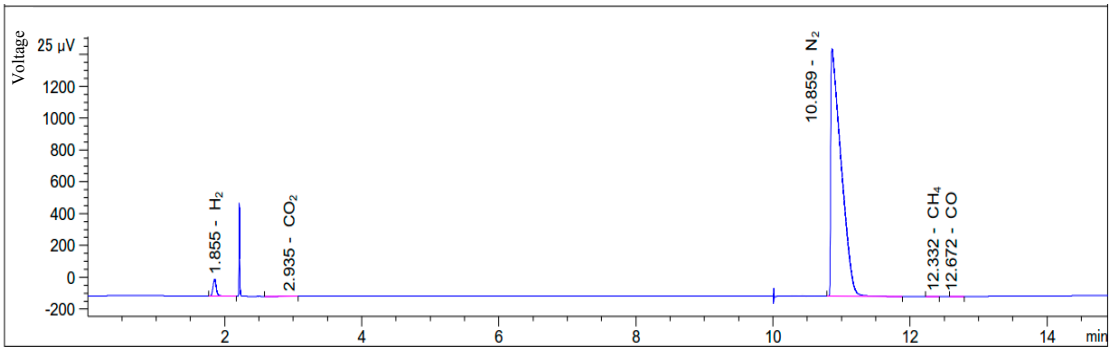

Figure S2. Gas chromatogram of ethanol APR over Ni/TNT.
(Reaction conditions: 0.1 g catalyst, 3 ml H_2O, 7ml C_2H_5OH, 3 MPa N_2, 473K, 4 h)

Table S1. Volume fraction of gas products [1]

Gas-phase product	H_2	CO_2	CH_4	CO
Volume fraction (%)	90.39	1.91	1.31	6.39

[1] Reaction conditions: 0.1 g catalyst, 3 ml H_2O, 7ml C_2H_5OH, 3 MPa N_2, 473K, 4 h.

Table S2 The catalysts and the corresponding abbreviations.

Catalyst	Abbreviation
granule–like Ni/TiO_2	Ni/TNP
nanosheet–like Ni/TiO_2	Ni/TNS
nanotube–like Ni/TiO_2	Ni/TNT
microsphere–like Ni/TiO_2	Ni/TMS