Supplementary information

The promotional effect of surface defects on the catalytic performance of supported nickel-based catalysts

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**Fig. S1** Raman spectra of samples.
Fig. S2 Main reaction pathways in the hydrogenation of o-CNB.

Fig. S3 TEM images of NiAl-2 and Ni/TiO₂ comparison catalysts.
Fig. S4 Time courses of o-CNB hydrogenation over different NiTi-\(x\) catalysts at 80 °C, 90 °C and 100 °C under a hydrogen pressure of 0.2 MPa.
Fig. S5 Concentration-time curves for o-CNB hydrogenation over different NiTi-x catalysts at 80 °C, 90 °C and 100 °C under a hydrogen pressure of 0.2 MPa.
Fig. S6 Recycling test of the NiTi-2 catalyst in hydrogenation of $\alpha$-CNB. Reaction conditions: 3.17 mmol $\alpha$-CNB; catalyst, 0.1 g; hydrogen partial pressure, 0.2 MPa; reaction temperature, 90 °C; reaction time, 210 min.