Supporting Information

Intermetallic Ni₂Si/SiCN as Highly Efficient Catalyst for One-pot

Tandem Synthesis of Imines and Secondary Amines

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Figure S1. BET of (a) Ni/SiCN-400, (b) Ni/SiCN-600, (c) Ni(Ni₂Si)/SiCN-800, and (d) Ni₂Si/SiCN-1000 samples.



Figure S2. Catalytic conversion and corresponding selectivity versus recycling times over $Ni_2Si/SiCN-1000$ without the addition of new catalysts. (The reaction was performed at 170 °C, 60 min, and 5.0 MPa H₂ with 1 mmol nitrobenzene, 2 mmol benzaldehyde, 0.05 g catalyst, and 20 mL cyclohexane).



Figure S3. XRD patterns of the fresh and spent $Ni_2Si/SiCN$ -1000 sample.



Figure S4. (a) TEM image, (b) the corresponding size distribution, (c) HRTEM image, and (d) the selected area electron diffraction pattern of the spent $Ni_2Si/SiCN-1000$ sample.

Table S1. BET of (a) Ni/SiCN-400, (b) Ni/SiCN-600, (c) Ni(Ni₂Si)/SiCN-800, and (d) Ni₂Si/SiCN-1000 samples.

Sample	Ni/SiCN-400	Ni/SiCN-600	Ni(Ni ₂ Si)/SiCN-800	Ni ₂ Si/SiCN-1000
Surface area	74 m²/g	254 m²/g	32 m²/g	19 m²/g