Electronic Supplementary Material (ESI) for CrystEngComm.

Electronic Supplementary Information

Solution synthesis of triangular and hexagonal nickel nanosheets with the aid of tungsten hexacarbonyl

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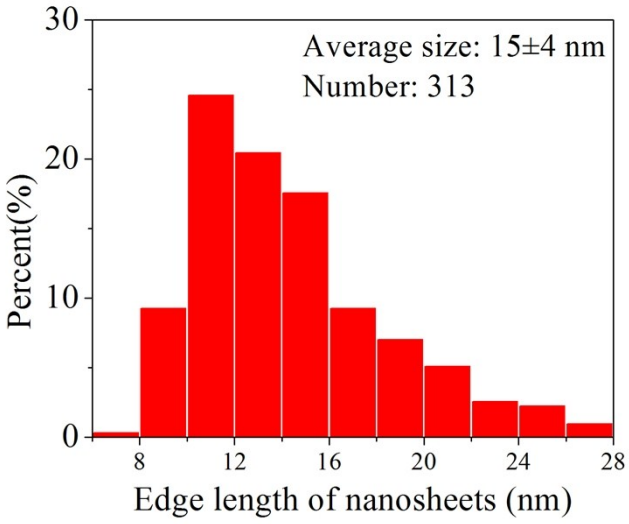

Fig. S1 Size distribution histogram of the 15 nm Ni nanosheets.

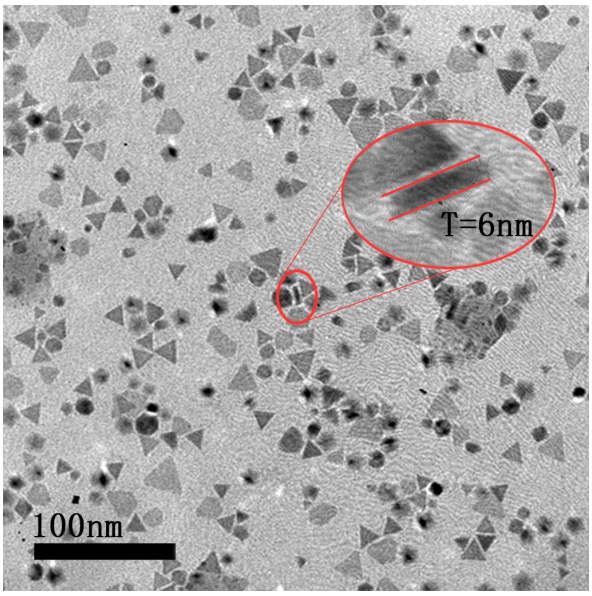

Fig. S2 TEM image showing a standing nanosheet (red circled region) which reveals the thickness dimension.

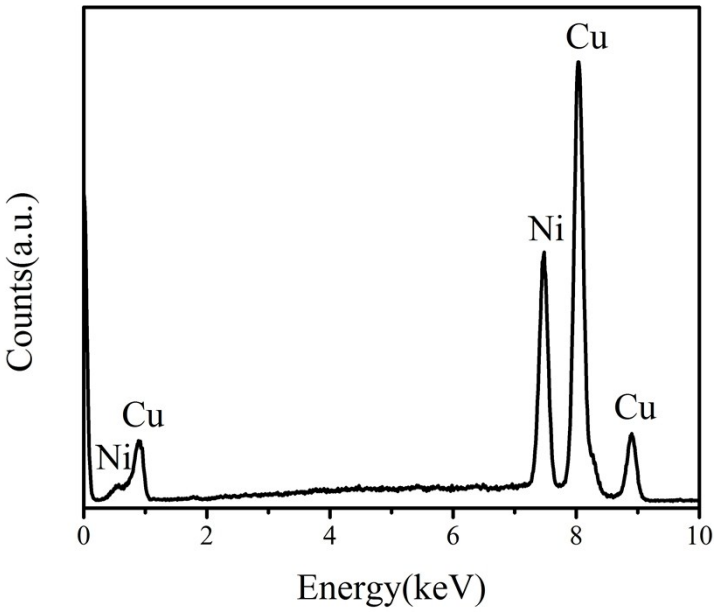

Fig. S3 EDS spectrum of the prepared 15 nm Ni nanosheets.

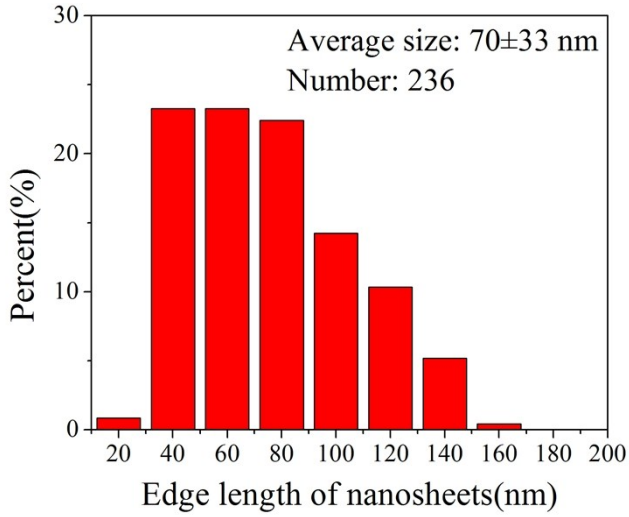

Fig. S4 Size distribution histogram of the 70 nm Ni nanosheets.

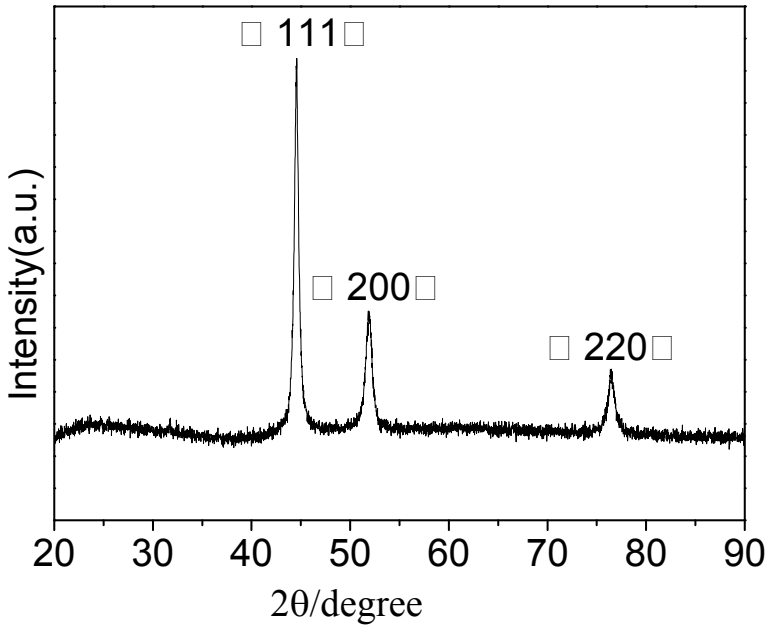

Fig. S5 XRD pattern of the prepared 70 nm Ni nanosheets.

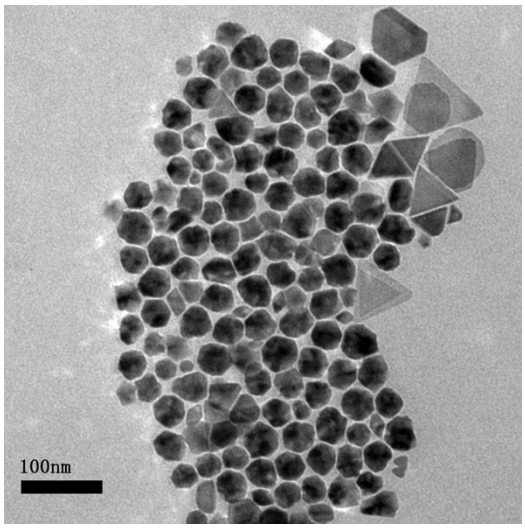

Fig. S6 TEM image of the product obtained after reacting at 150 °C for 1 hour.

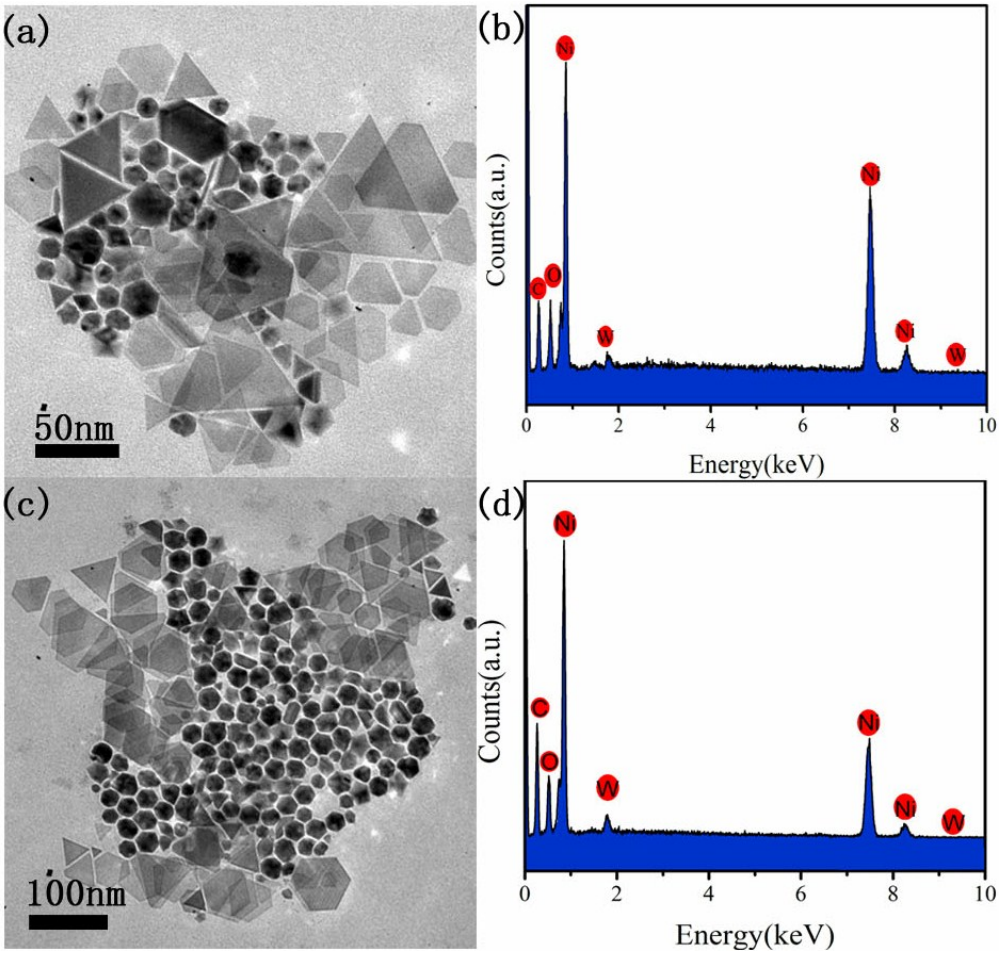

Fig. S7 (a) and (c) are the TEM images of the products synthesized with different amounts of $W(CO)_6$ (a: 1 mmol; c: 2 mmol). (b) and (d) are the corresponding EDS spectra obtained from the SEM-EDS analyses on the bulk sample powders (b:1 mmol; d: 2mmol $W(CO)_6$). The determined relative contents of W are only 0.079% (b) and 1.6% (d) of that of Ni.

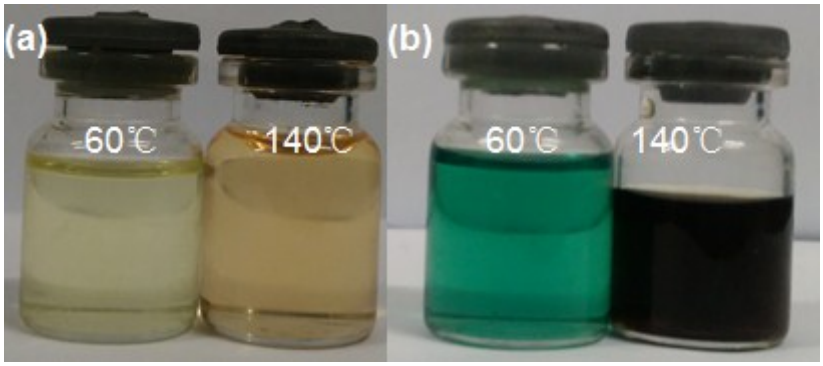

Fig. S8 Color change of the mixed solution of OAm and $W(CO)_6$ (a) and the mixed solution of OAm, $W(CO)_6$, and $Ni(acac)_2$ (b) at different temperatures.

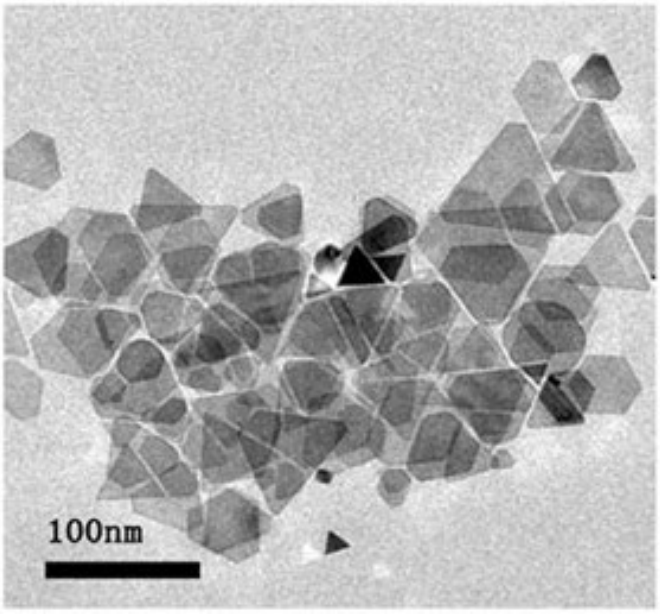

Fig. S9 TEM image of the Ni nanosheets obtained after injecting 1 mL of oleic acid into the reaction system at 160 °C.

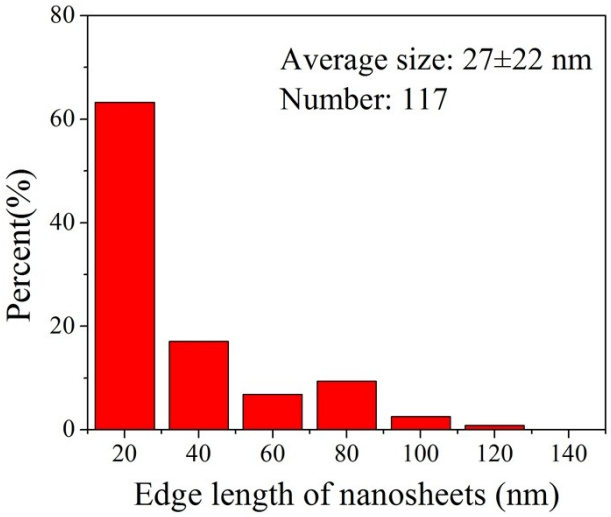

Fig. S10 Size distribution histogram of the product at 160 °C with an aging time of 1 h.

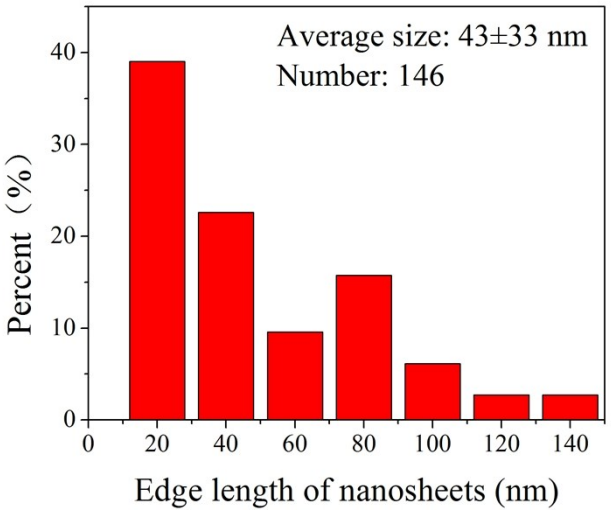

Fig. S11 Size distribution histogram of the product at 170 °C with an aging time of 1 h.

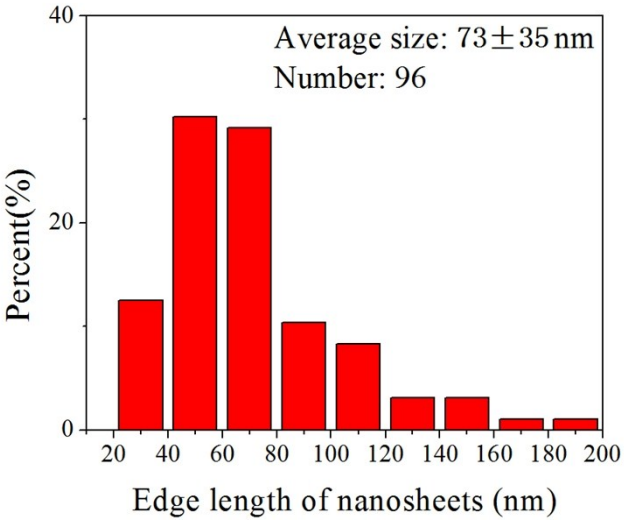

Fig. S12 Size distribution histogram of the product at 200 °C with an aging time of 1 h.