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Supporting Information

Alkali-Modified Non-Precious Metal 3D-$NiCo_2O_4$ Nanosheets for Efficient Formaldehyde Oxidation at Low Temperature

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Fig. S1 High-resolution XPS spectra of (a) survey spectra, (b) Ni 2p, (c) Co 2p of $NiCo_2O_4$ nanosheets, $NiCo_2O_4$-0.5 nanosheets, $NiCo_2O_4$-1 nanosheets and $NiCo_2O_4$-4 nanosheets.

Fig. S2 SEM images of (a) $NiCo_2O_4$-0.1 nanosheets, (b) $NiCo_2O_4$-0.5 nanosheets, (c) $NiCo_2O_4$-2 nanosheets, and (d) $NiCo_2O_4$-4 nanosheets .

Fig. S3 N_2 Adsorption–desorption isotherm of all the catalysts.

Table S1 Porous structure parameter of different catalysts.

Fig. S4 Catalytic performance of $NiCo_2O_4$-1 nanosheets deal with different alkali.

Fig. S5 SEM and XRD of $NiCo_2O_4$-1 after reaction for 200 h.

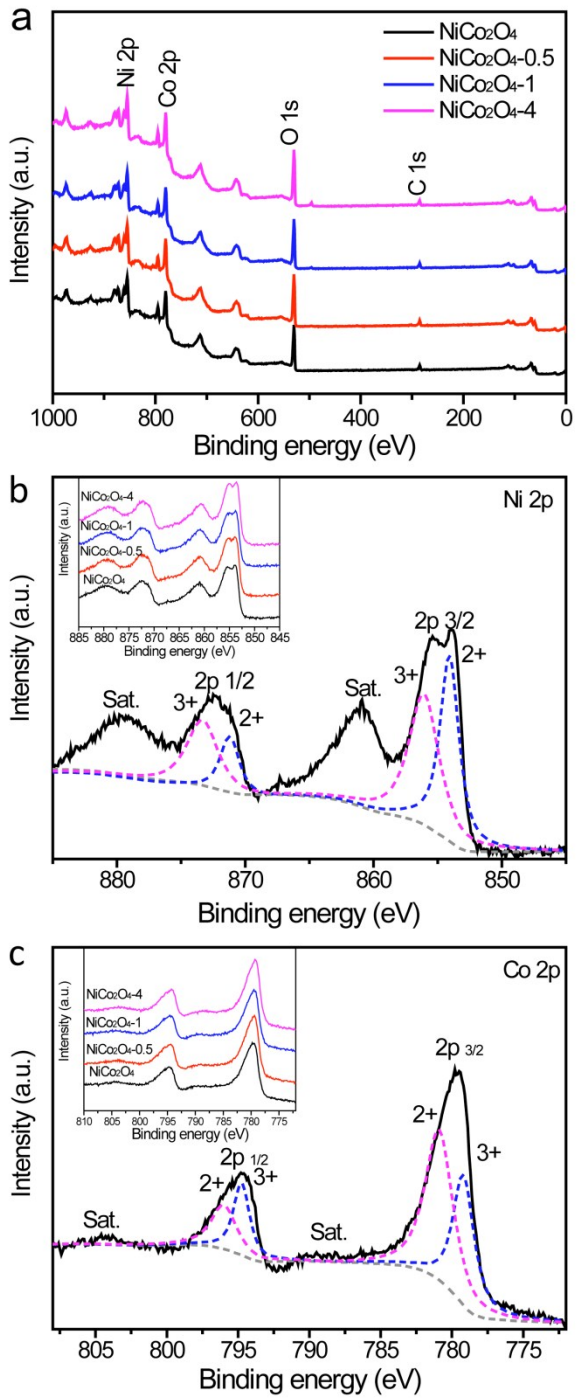

Fig. S1. High-resolution XPS spectra of (a) survey spectra, (b) Ni 2p, (c) Co 2p of $NiCo_2O_4$ nanosheets, $NiCo_2O_4$-0.5 nanosheets, $NiCo_2O_4$-1 nanosheets and $NiCo_2O_4$-4 nanosheets.

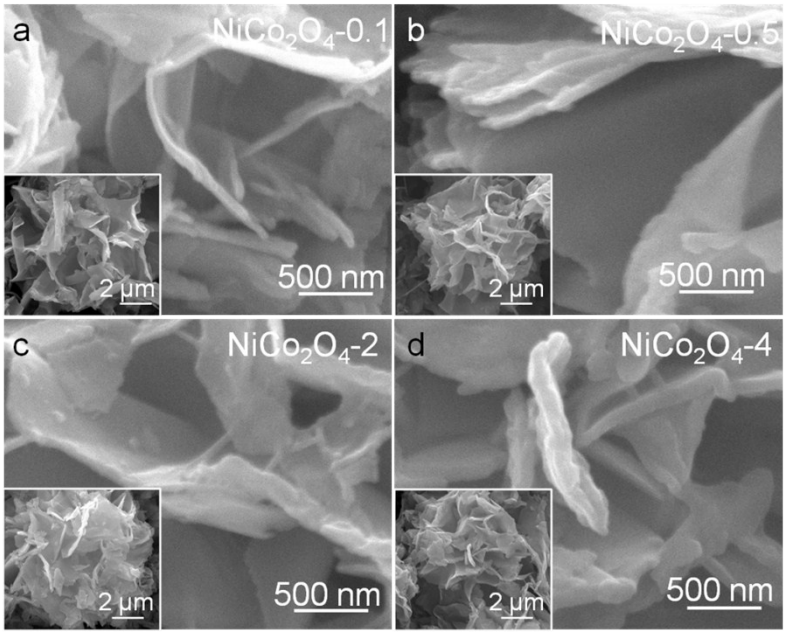

Fig. S2. SEM images of (a) $NiCo_2O_4$-0.1 nanosheets, (b) $NiCo_2O_4$-0.5 nanosheets, (c) $NiCo_2O_4$-2 nanosheets, and (d) $NiCo_2O_4$-4 nanosheets .

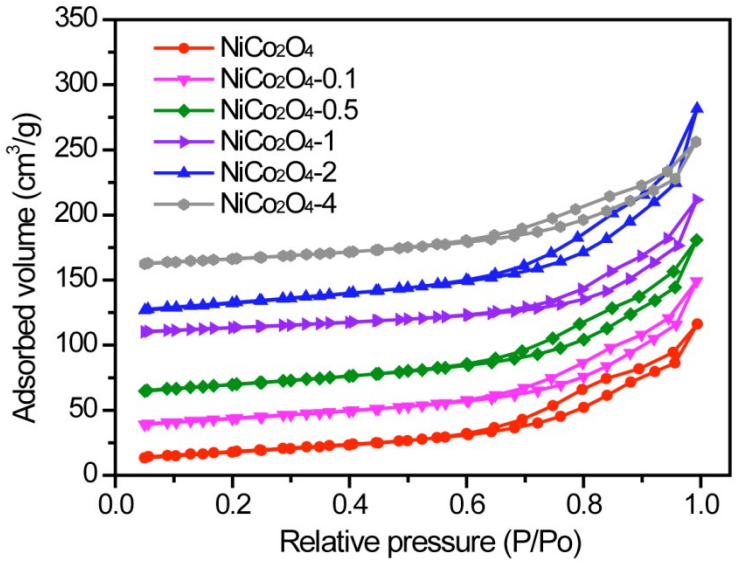

Fig. S3. N_2 Adsorption–desorption isotherm of all the catalysts.

Table S1 Porous structure parameter of different catalysts.

Sample	Surface area ($m^2 \cdot g^{-1}$)	Pore volume V_p ($cm^3 \cdot g^{-1}$)	Pore size (Å)
$NiCo_2O_4$	81.5457	0.265998	130.47
$NiCo_2O_4$-0.1	71.6985	0.2026	113.04
$NiCo_2O_4$-0.5	67.6277	0.192399	113.79
$NiCo_2O_4$-1	65.3964	0.1901	113.19
$NiCo_2O_4$-2	58.5365	0.164	112.46
$NiCo_2O_4$-4	48.1912	0.1728	103.46

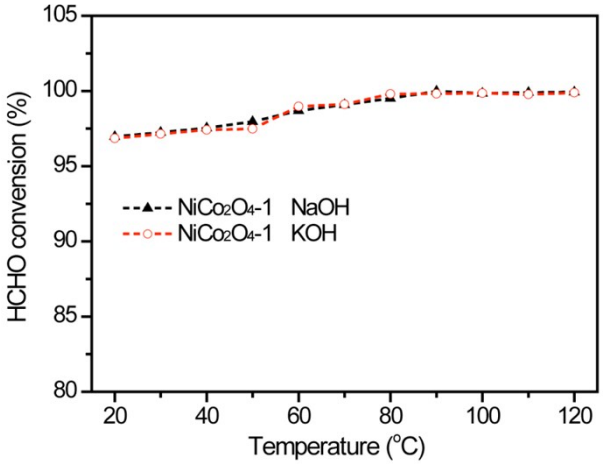

Fig. S4. Catalytic performance of $NiCo_2O_4$-1 nanosheets deal with different alkali.

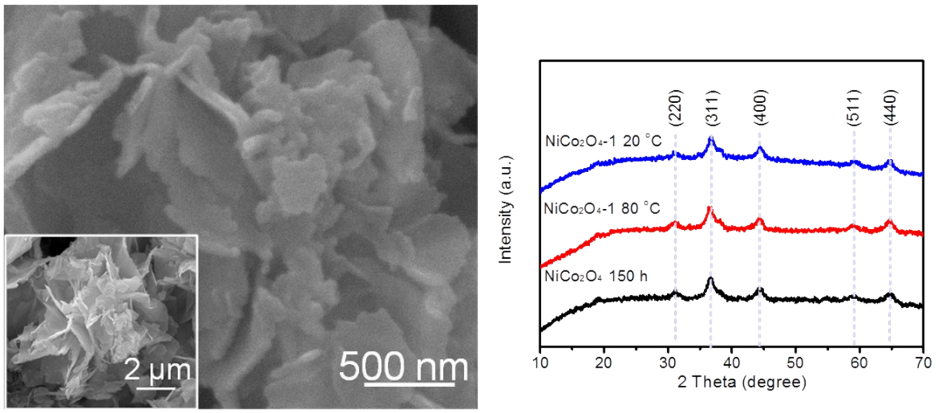

Fig. S5. SEM and XRD of $NiCo_2O_4$-1 after reaction for 200 h.