

Supplementary Information

The phase of the nanowires obtained by dissolving AAO templates and Al substrates was characterized by X-ray ($\text{CuK}\alpha$) powder diffraction (XRD). As shown in Figure 1, all the peaks can be indexed to a face-centered cubic Fe (JCPDS card No. 89-4184 space group $\text{Im}\bar{3}\text{m}$).

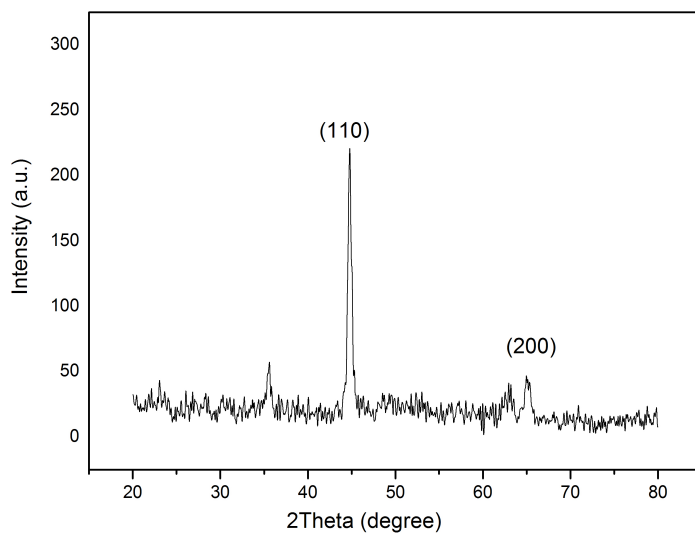


Fig.1 XRD pattern of Fe nanowires collected after dissolving AAO templates

The phase of the nanowires obtained by dissolving AAO templates and Al substrates was characterized by X-ray ($\text{CuK}\alpha$) powder diffraction (XRD). As shown in Figure 2, all the peaks can be indexed to a face-centered cubic Fe (JCPDS card No. 89-4308 space group $\text{P6}_3/\text{mmc}$).

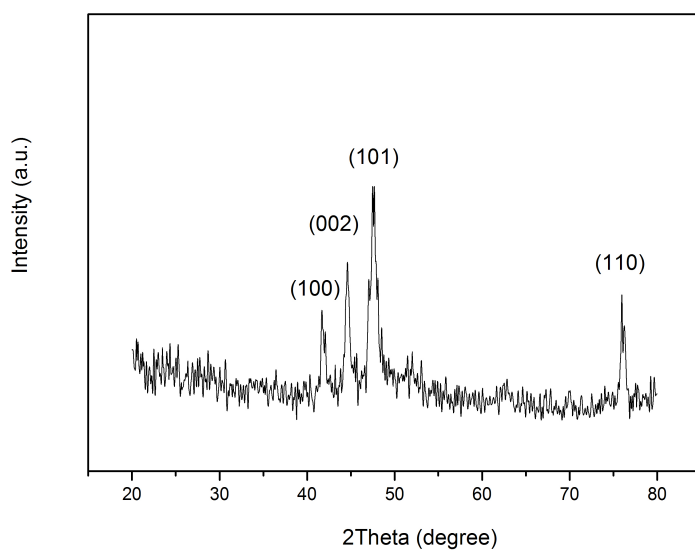


Fig.2 XRD pattern of Co nanowires collected after dissolving AAO templates

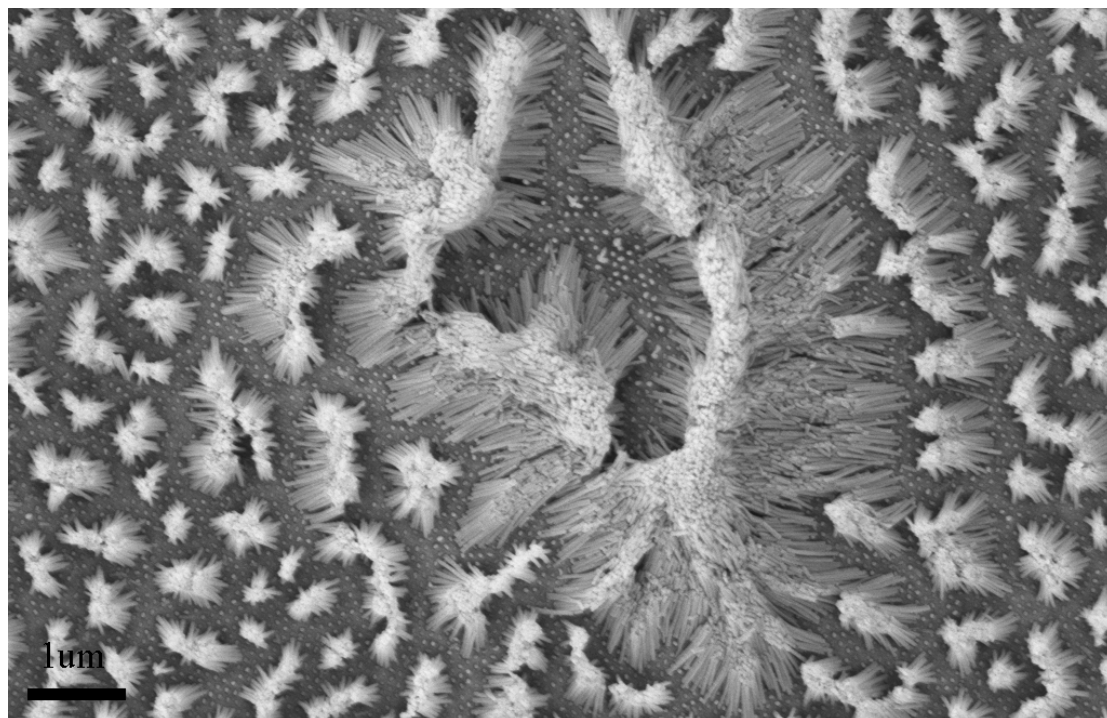


Fig.3 The FESEM image of the Ni nanoarrays without any disposal

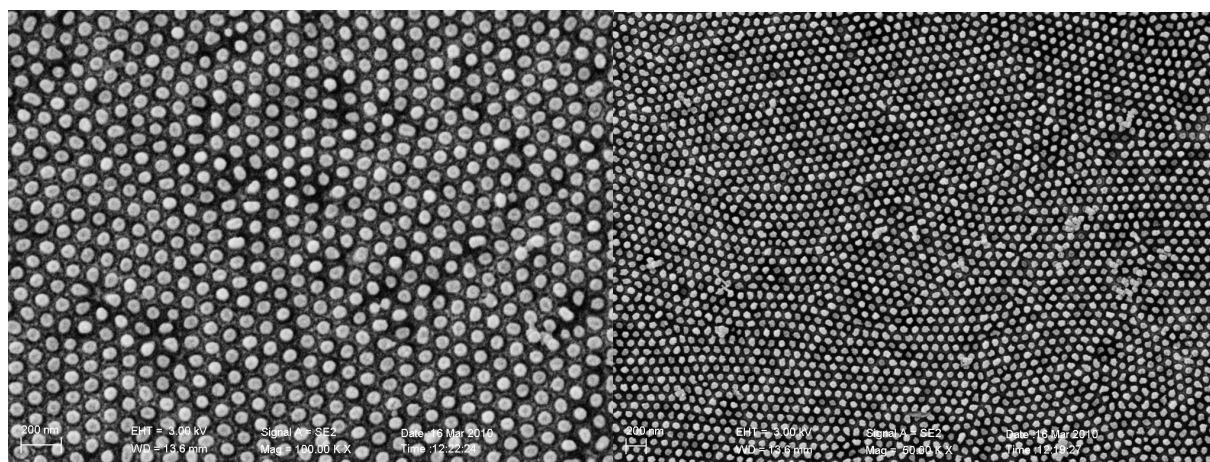


Fig. 4 The FESEM image of the Ni nanoarrays with chromic acid disposal