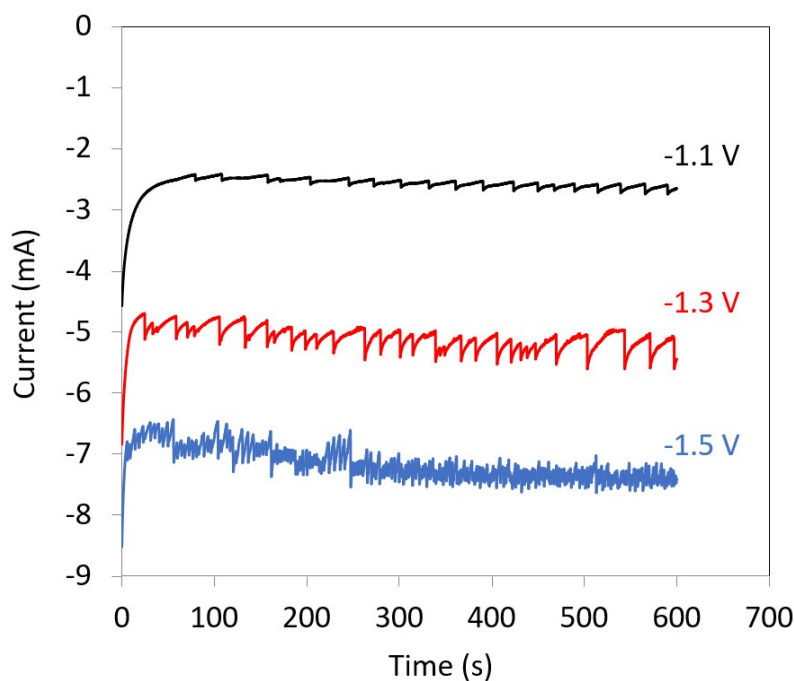
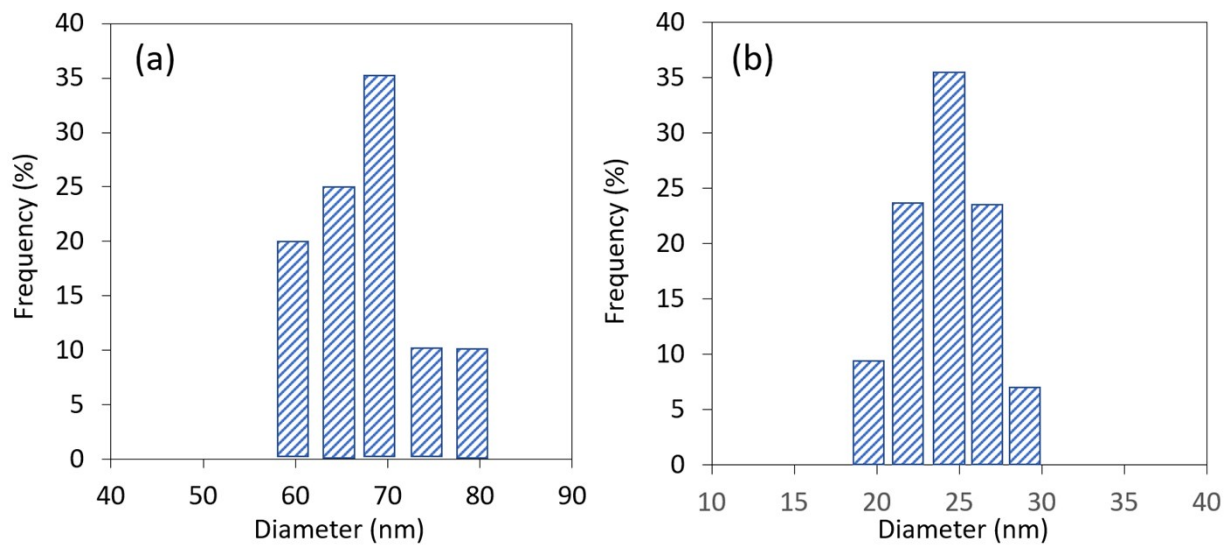


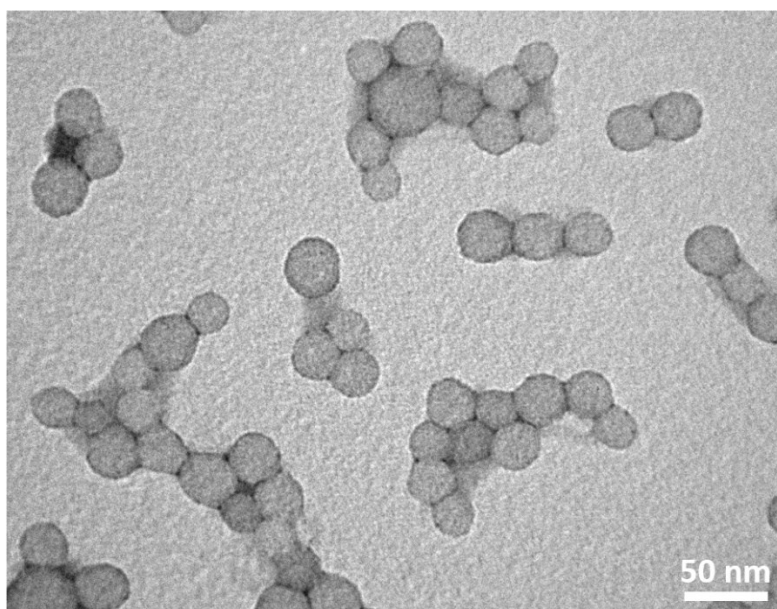
**Figure S1** (a) SEM image and (b) pore size distribution of a mesoporous Ni film prepared with the typical conditions.



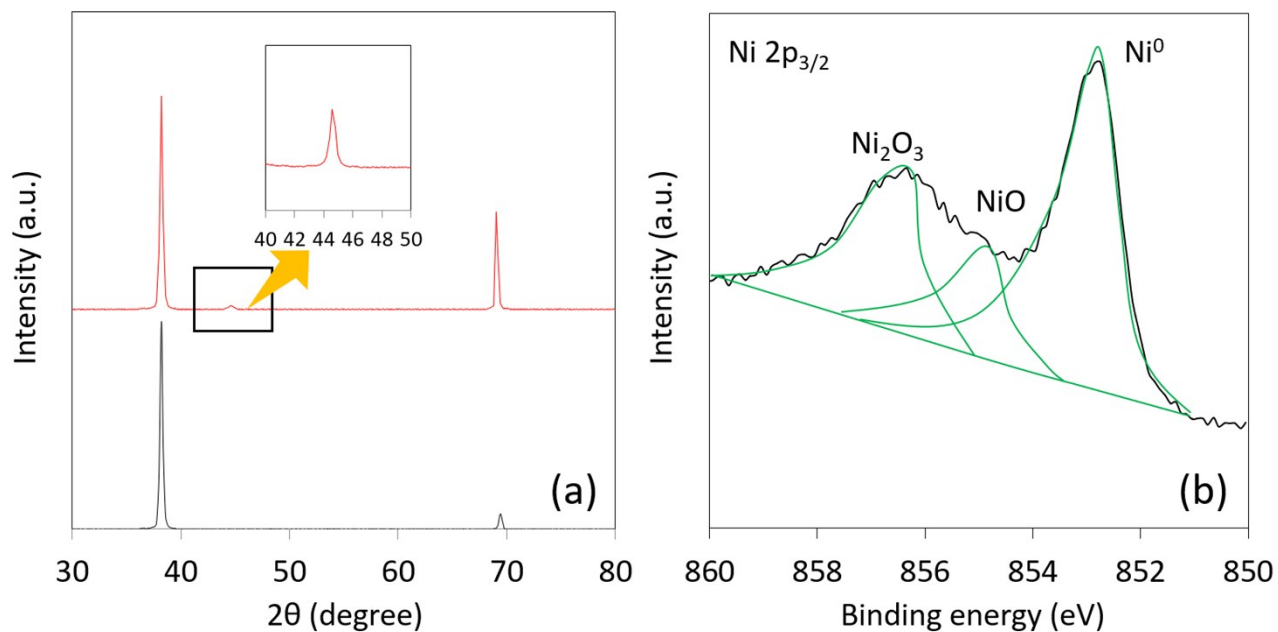
**Figure S2** Amperometric response during electrodeposition of mesoporous Ni films at -1.10 V, -1.30 V and -1.5 V vs. Ag/AgCl. In our experiments, hydrogen is evolved which can add noise to the amperometric response.



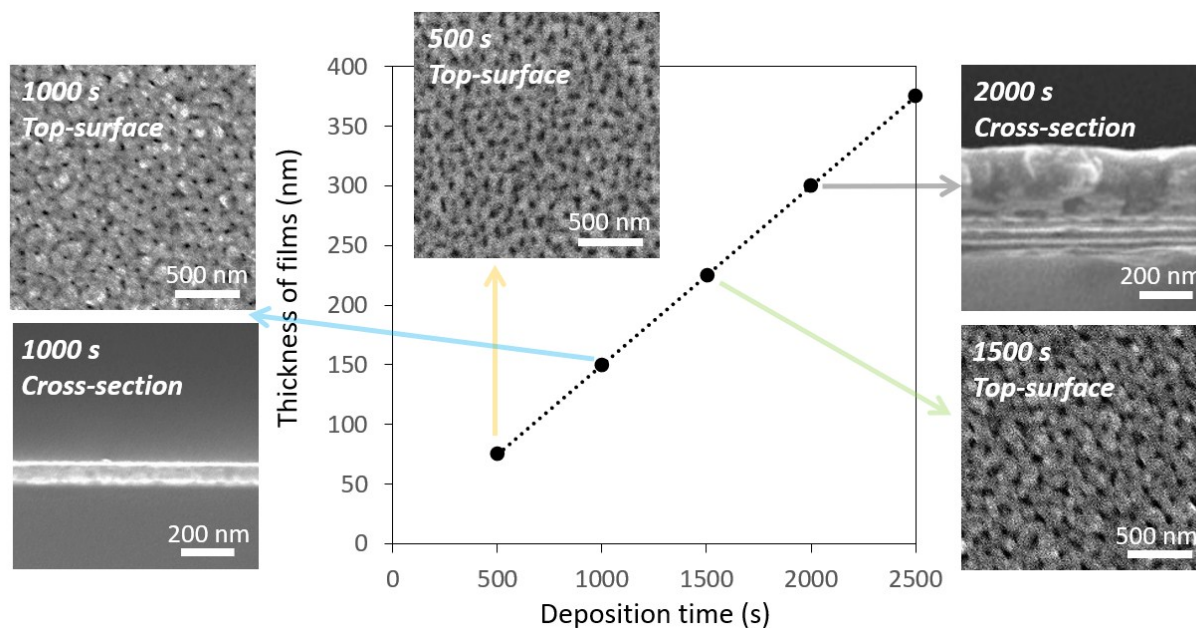
**Figure S3** The PS core size distribution of the polymeric micelles (a) before and (b) after addition of  $\text{Ni}(\text{CH}_3\text{COO})_2$  precursor.



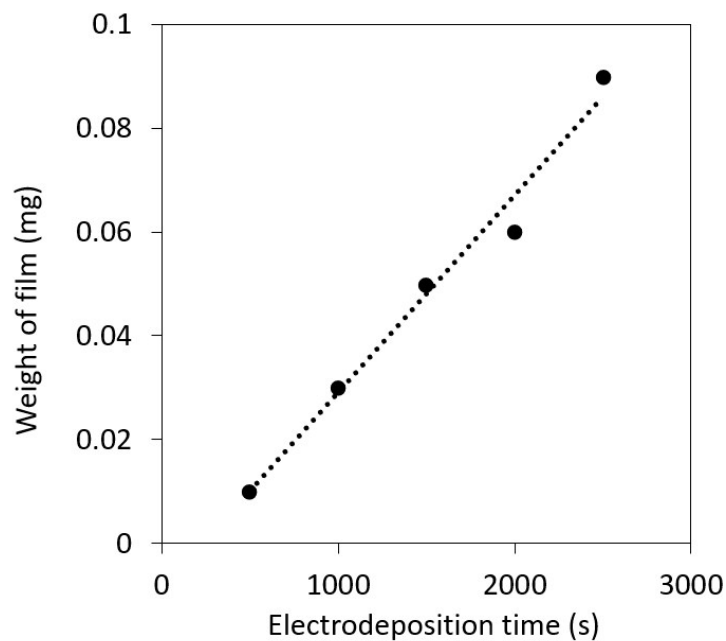
**Figure S4** TEM image of polymeric micelles after addition of  $\text{Ni}(\text{CH}_3\text{COO})_2$  precursor.



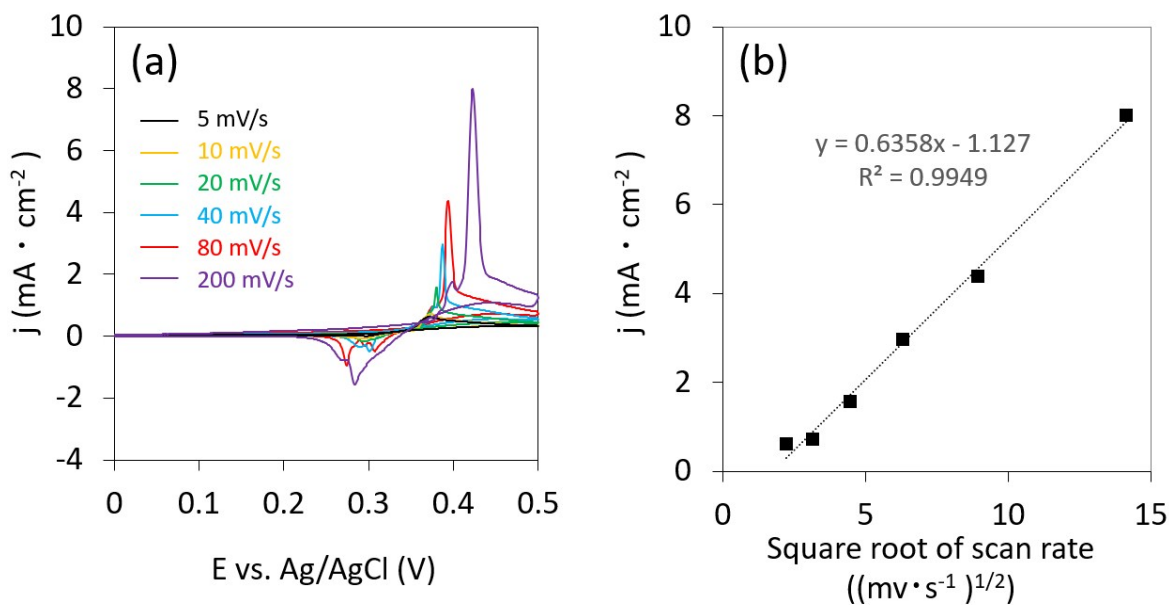
**Figure S5** (a) Wide-angle XRD pattern of an Au-coated silicon substrate (bottom) versus the same substrate coated with a mesoporous Ni film (top). Two sharp peaks correspond to the Au substrate. (b) An XPS spectrum of a mesoporous Ni film between 850 eV and 860 eV showing the splitting of the Ni-2p<sub>3/2</sub> peak.



**Figure S6** Relationship between the electrodeposition times and the film thicknesses and SEM images of mesoporous Ni films prepared with various deposition times.



**Figure S7** Relationship between the electrodeposition times and the weight of films.



**Figure S8** (a) CV curves using the mesoporous Ni film as the working electrode in a solution of 10 mM glucose in 1M KOH at different scan rates. (b) Shows the relationship between the current density of the anodic peak versus the square root of the scan rate.

**Table S1** A comparison of the reported sensitivities of various nanostructured Ni electrodes for glucose sensing in an electrocatalytic setup.

Electrode	Linear range / mM	Sensitivity	Reference
Ni mod CILE	0.005~23	0.2 mA mM <sup>-1</sup> cm <sup>-2</sup>	[R1]
Ni powder MCC	0.0005~5	40 mA mM <sup>-1</sup>	[R2]
Ni CFP	0.002~2.5	3.3 mA mM <sup>-1</sup>	[R3]
Ni-BDD	0.01~10	1.04 mA mM <sup>-1</sup> cm <sup>-2</sup>	[R4]
Mesoporous Ni film	1~10	43.6 mA mM <sup>-1</sup> 1.09 mA mM <sup>-1</sup> cm <sup>-2</sup>	This work
Ni foil	1~10	0.43 mA mM <sup>-1</sup> cm <sup>-2</sup>	This work

[R1] A. Safavi, N. Maleki, E. Farjami, *Biosens. Bioelectron.*, 2009, **24**, 1655

[R2] A. Salimi, M. Roushani, *Electrochem. Commun.*, 2005, **7**, 879

[R3] Y. Liu, H. Teng, H. Hou, T. You, *Biosens. Bioelectron.*, 2009, **24**, 3329

[R4] K. E. Toghill, L. Xiao, M. A. Phillips, R. G. Compton, *Sensors and Actuators B*, 2010, **147**, 642.