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## **Supporting Information**

Improved electrocatalytic activity of Pt catalyst supported on core-shell CMs@NiO for methanol oxidation

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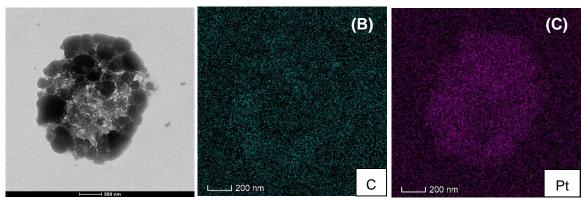
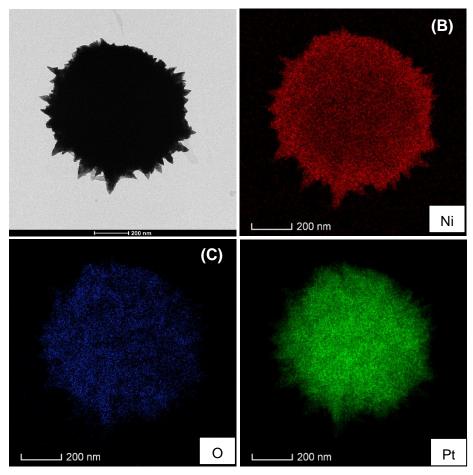
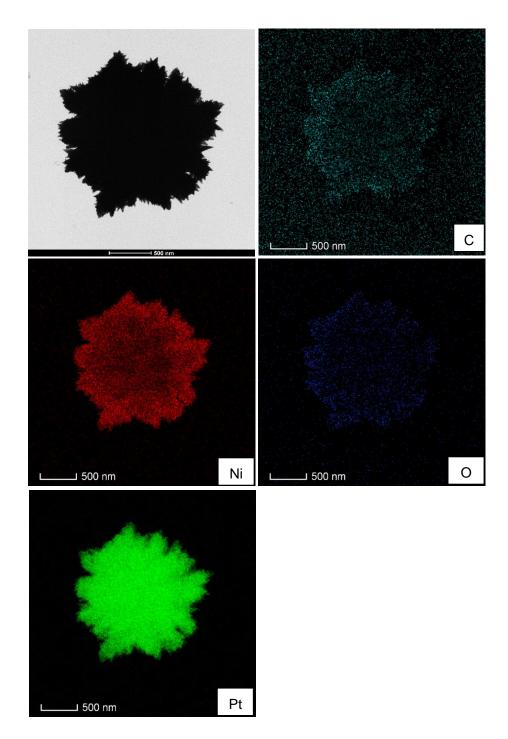


Figure S1. TEM of CMs/Pt (A) and the corresponding EDS dot mapping of the C (B), Pt (C) elements.



**Figure S2**. TEM of NiO/Pt (A) and the corresponding EDS dot mapping of the Ni (B), O (C) and Pt (D) elements.



**Figure S3**. TEM of CMs@NiO/Pt (A) and the corresponding EDS dot mapping of the C (B), Ni (C), O (D) and Pt (E) elements.

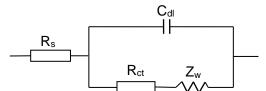


Figure S4. Equivalent circuit for an electrode undergoing heterogeneous electron transfer.

 $\textbf{Table S1.} \ \textbf{The calculated data obtained from equivalent circuit}$ 

	R <sub>s</sub> (Ω)	C <sub>dl</sub> (F)	R <sub>ct</sub> (Ω)	Z <sub>w</sub> (Ω)
CMs/Pt	1.000E-2	1.052E-11	197.9	4.748E-5
NiO/Pt	1.000E-2	1.153E-9	182.2	1.022E-8
CMs@NiO/Pt	1.000E-1	1.378E-9	147.4	8.974E-5