

Supporting Information

Carbon riveted microcapsule Pt/MWCNTs-TiO₂ catalyst prepared by in situ carbonized glucose with ultrahigh stability for proton exchange membrane fuel cell

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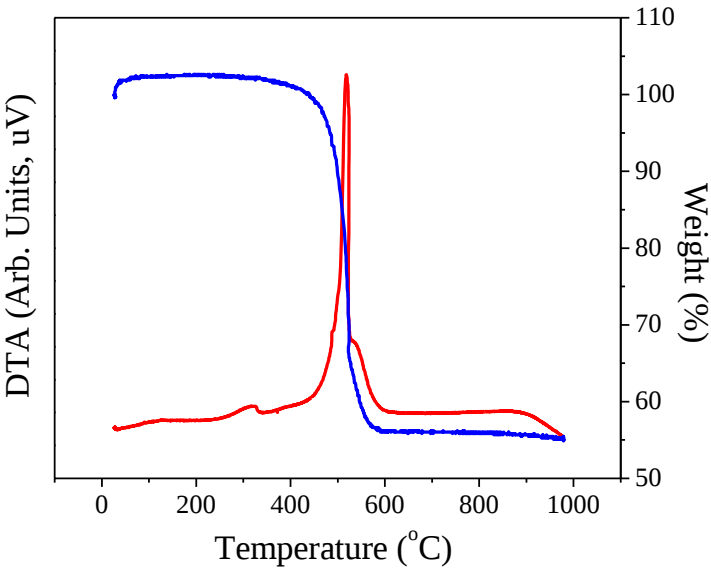


Figure S1 TGA-DTA results for MWCNTs.

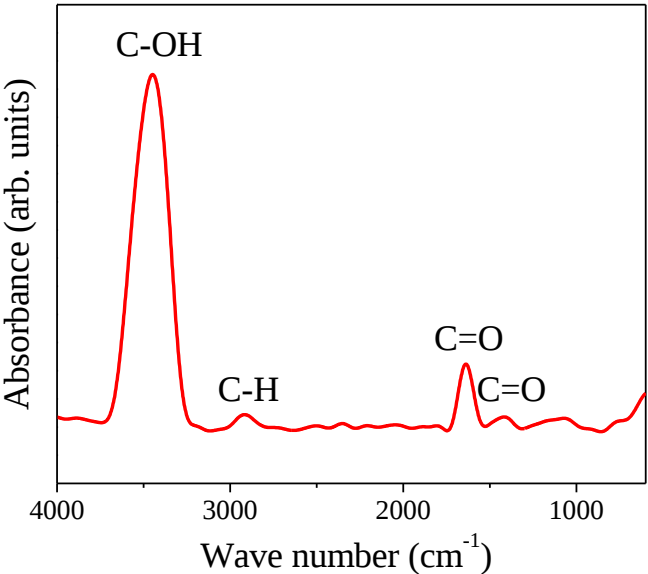


Figure S2 FTIR spectra of MWCNTs.

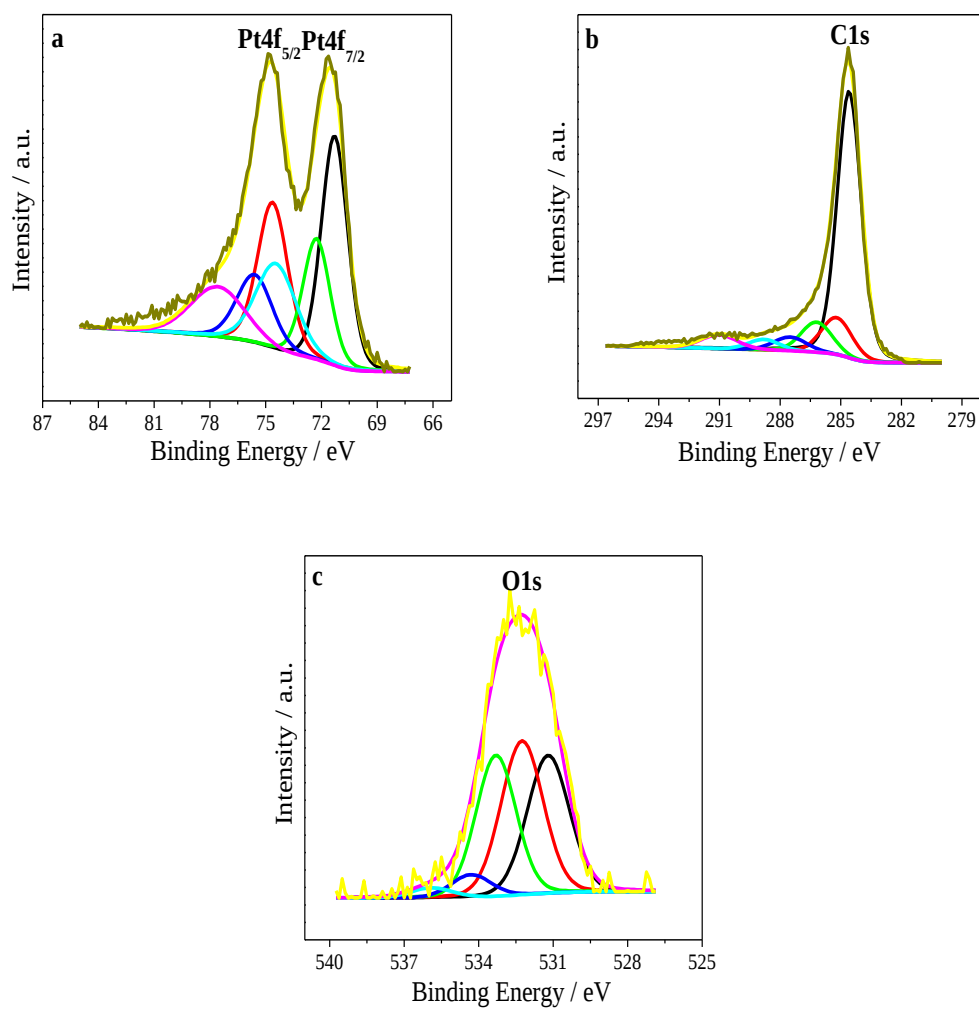


Figure S3 C1s, O1s and Pt4f XPS spectra of Pt/MWCNTs catalyst.

Table S1 Binding energy [BE(4f_{7/2}), eV] and atomic percentages (%) of different Pt [Pt(0), Pt²⁺ and Pt⁴⁺] obtained from Pt(4f) XPS spectra.

Sample	Pt(0) BE=71.29 eV	Pt(II) BE=72.26 eV	Pt(IV) BE=74.44 eV
Pt/MWCNTs	46.75	25.97	27.29

Table S2 Results of the fits of the C1s spectra, values given in % of total intensity.

Sample	sp ² -C 284.58eV	sp ³ -C 285.20eV	C-OR 286.20eV	C=O 287.50eV	COOR 288.80eV	Anti[]-bond 291.02eV
Pt/MWCNTs	63.73	11.36	9.24	4.48	3.24	4.95

Table S3 Results of the fits of the O1s spectra, values given in % of total intensity.

Sample	530.62 eV	531.10 eV	532.14 eV	533.30 eV	534.30 eV
Pt/MWCNTs	30.14	33.68	29.33	4.72	2.14