

Preferential protection of low coordinated sites in Pt nanoparticles for enhancing durability of Pt/C catalyst

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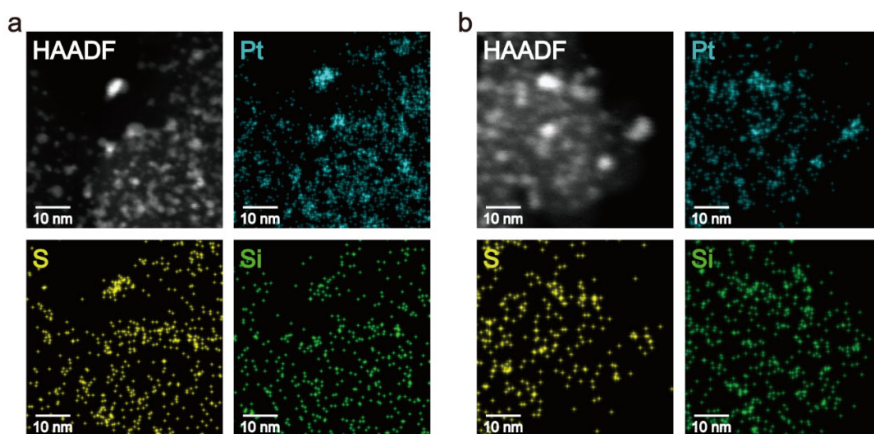


Figure S1. STEM-EDS HAADF image and Pt, S, and Si elemental mapping images of (a) 4.2- and (b) 12.7-MPTES-Pt/C.

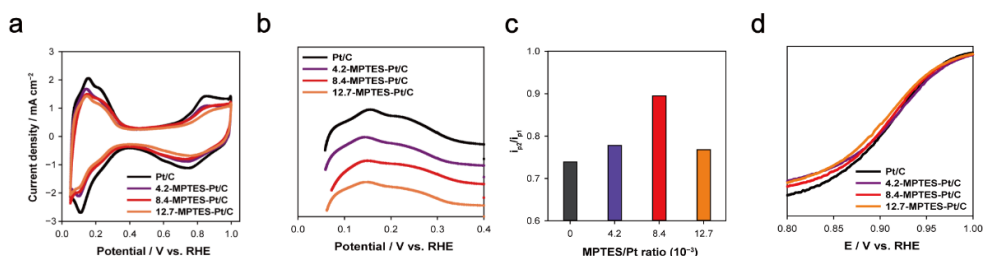


Figure S2. (a) CV curves of MPTES-Pt/Cs at whole measurement range (0.05 - 1.0 V vs. RHE). (b) Separated hydrogen desorption peaks of MPTES-Pt/Cs at the range of 0.05 - 0.4 V vs. RHE. (c) Ratio of current at peak 2 (~0.23 V) and peak 1 (~0.15 V) by MPTES/Pt ratio with subtracting capacitive current. (d) Magnified ORR polarization curves of MPTES-Pt/Cs at the kinetic region.

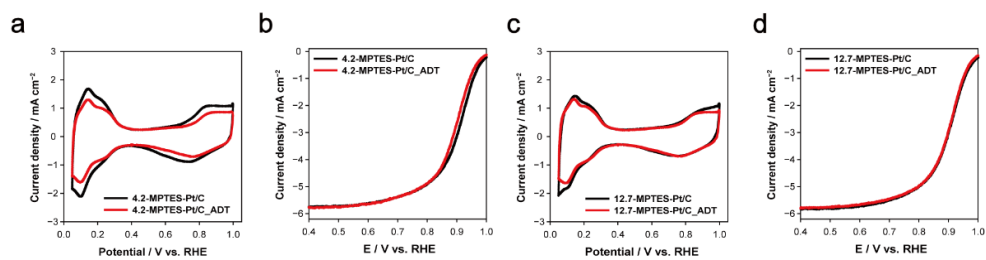


Figure S3. CV and ORR polarization curves before and after ADT for (a), (b) 4.2- and (c), (d) 12.7-MPTES-Pt/C.

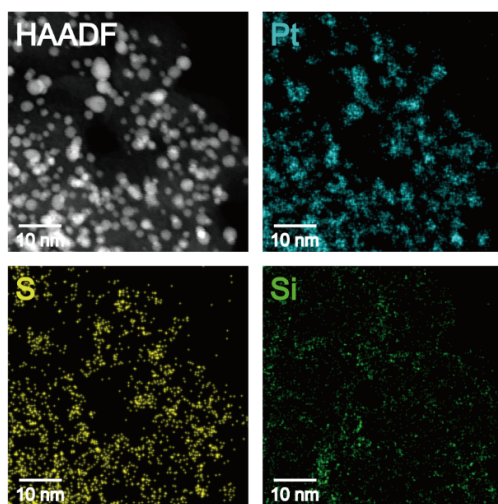


Figure S4. STEM-EDS HAADF image and Pt, S, and Si elemental mapping images of 8.4-MPTES-Pt/C after ADT.

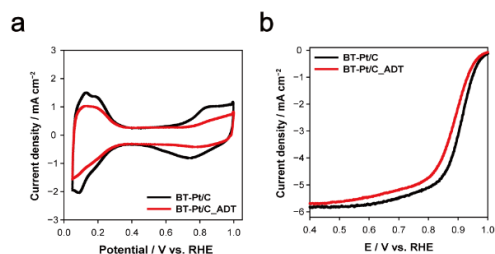


Figure S5. (a) CV and (b) ORR polarization curve before and after ADT for BT-Pt/C.

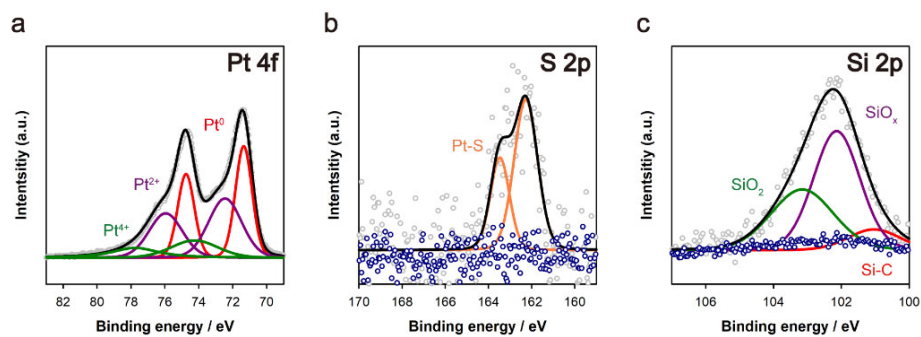


Figure S6. (a) Pt 4f, (b) S 2p, and (c) Si 2p XPS spectra of MP TES-Pt/C treated with excess amount of MP TES (84-MP TES-Pt/C). The S 2p and Si 2p signals of the pristine Pt/C were depicted as blue dots.