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Supporting information

Six-fold difference in structure results in Six-order difference in conductivity: silica shell nanoarchitectonics on carbon black particle Takaaki Yoshida,<sup>a</sup> and Makoto Ogawa<sup>\*b</sup>

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Figure S1 Nitrogen adsorption/desorption isotherms (above) and the TEM image (below) of pristine CB



Figure S2 TG-DTA curves of γ-MPS-CB@silica



Figure S3 Experimental set-up for the conductivity measurement



Figure S4 TG-DTA curves of γ-MPS-CB@silica-12nm



Figure S5 The role of the silica shell thickness on the electric conductivity of the film through the connection between the adjacent particles in the film