

Electronic Supplementary Information (ESI)

Structurally colored coating films with tunable iridescence fabricated via cathodic electrophoretic deposition of silica particles

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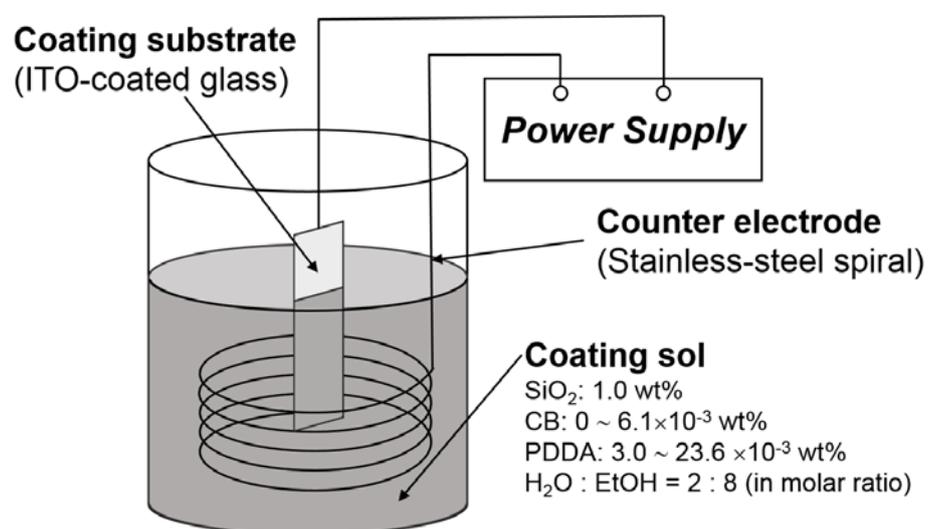


Fig. S1 Schematic drawing of the setup of the EPD system used in the present study.

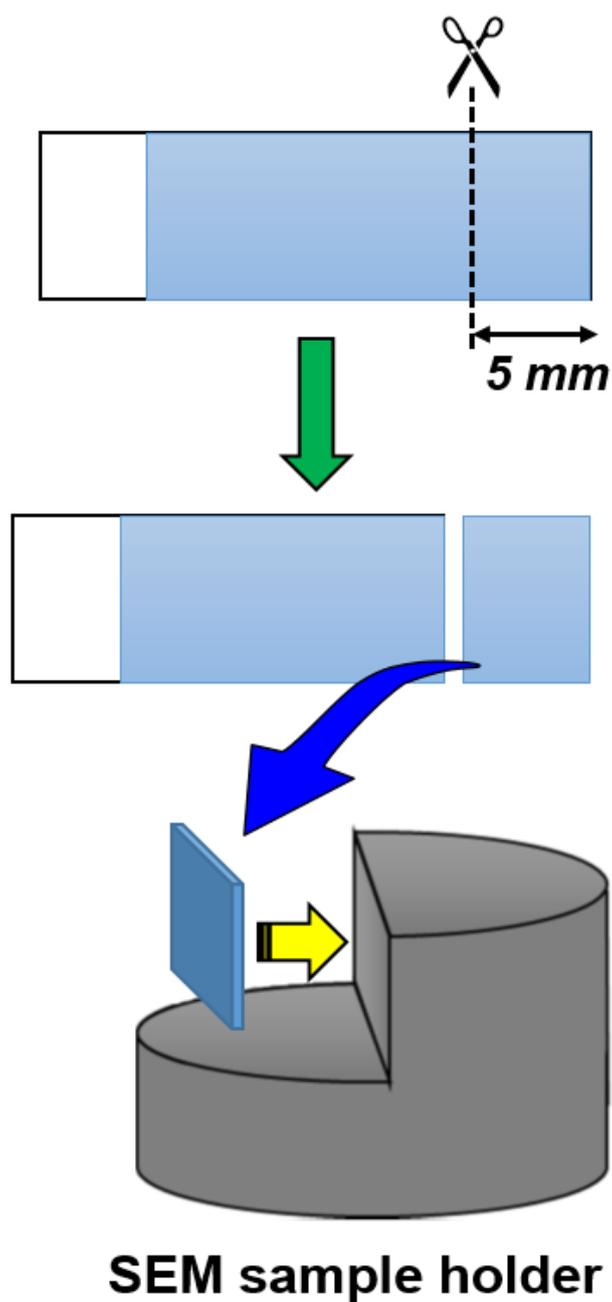


Fig. S2 Schematic drawings of the procedure for cross-sectional SEM observation of an EPD coating film consisting of a SiO₂ particle array.

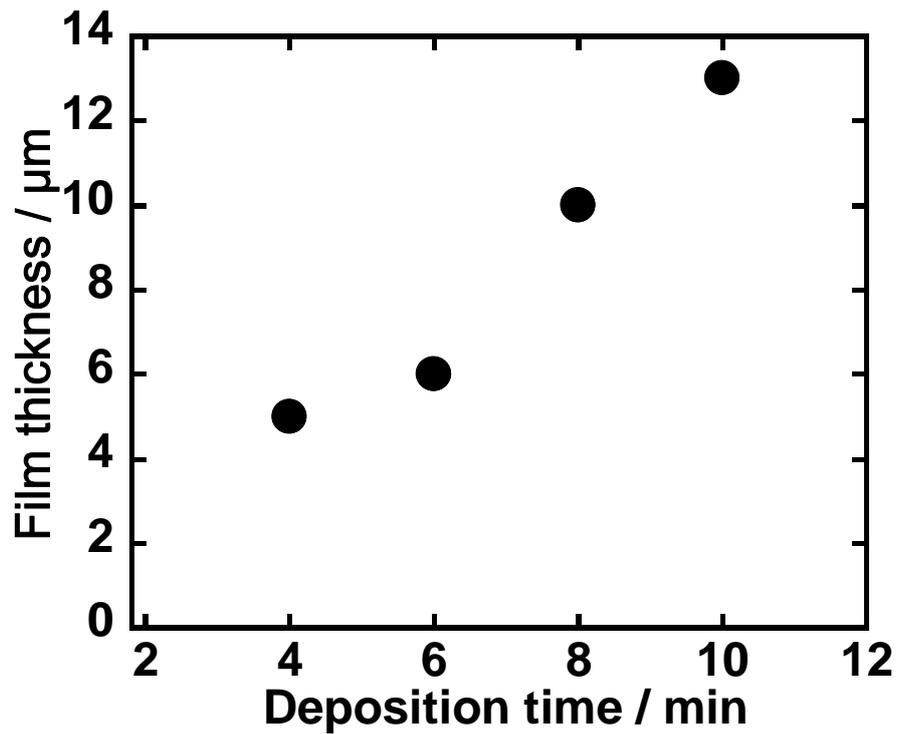


Fig. S3 Thickness of the cathodic EPD coating films as a function of the EPD duration. The coating films were prepared using SiO₂ particles with a diameter of 260 nm on ITO-coated glass substrates. The quantities of PDDA and CB added to the coating sols were 5.9×10^{-3} and 3.6×10^{-3} wt%, respectively. The applied voltage was fixed at 5 V.

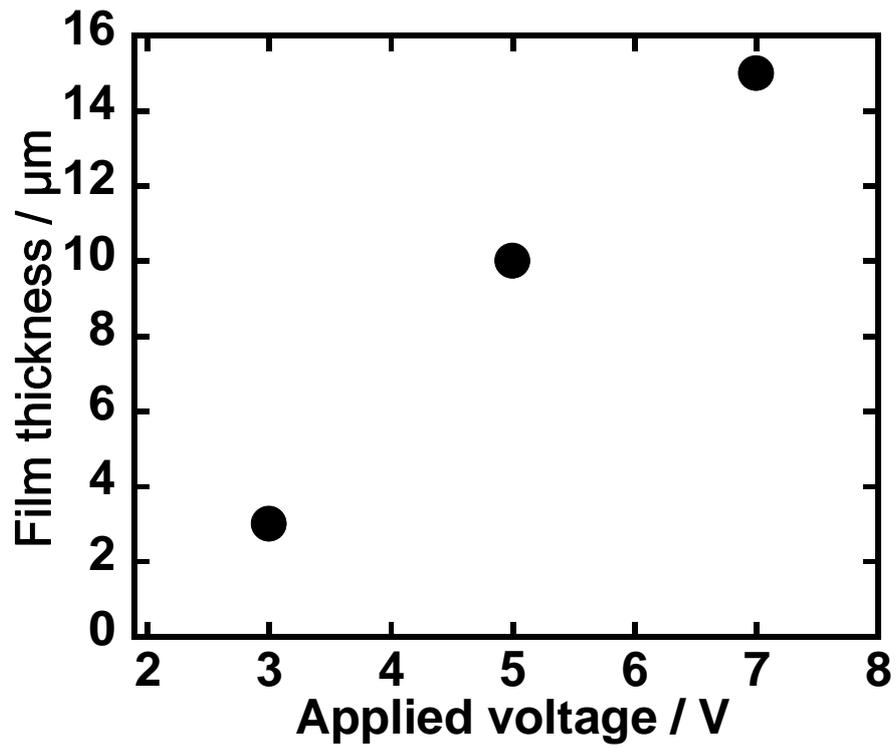


Fig. S4 Thickness of the cathodic EPD coating films as a function of applied voltage of EPD process. The coating films were prepared using SiO₂ particles with a diameter of 260 nm on ITO-coated glass substrates. The quantities of PDDA and CB added to the coating sols were 5.9×10^{-3} and 3.6×10^{-3} wt%, respectively. The EPD duration was fixed at 8 min.