

Supporting Information

Fabrication and Conductive Properties of Multilayered Ultrathin Films Designed by Layer-by-Layer Assembly of Water-Soluble Fullerenes

Kohji Masuda, Takefumi Abe, Hiroaki Benten, Hideo Ohkita, Shinzaburo Ito*

Department of Polymer Chemistry, Graduate School of Engineering, Kyoto University,
Katsura, Nishikyo, Kyoto 615-8510, Japan

Surface roughness. As summarized in Table S1, the surface roughness of (PDDA/FDCA)₆ and (FMAC/PSS)₅/FMAC films shown in Figure 5 was typically ≤10 nm and independent of the scan area. As shown in Table S2, the same was true for the LbL films with different number of layers.

Table S1. Surface roughness measured for different scan sizes

Film	Arithmetic mean roughness (Ra) / nm	Scan area / μm ²	Film	Arithmetic mean roughness (Ra) / nm	Scan area / μm ²
	6 ± 1	4 × 4		8 ± 1	4 × 4
(FMAC/PSS) ₅ /FMAC	7.8	6 × 6	(PDDA/FDCA) ₆	9.5	10 × 10
	8.5	10 × 10			

Table S2. Surface roughness measured for films with different number of layers

Film	Arithmetic mean roughness (Ra) / nm	Scan area / μm ²	Film	Arithmetic mean roughness (Ra) / nm	Scan area / μm ²
(FMAC/PSS) ₂ /FMAC	9.3	10 × 10	(PDDA/FDCA) ₄	12.4	10 × 10
(FMAC/PSS) ₅ /FMAC	8.5		(PDDA/FDCA) ₆	9.5	
(FMAC/PSS) ₈ /FMAC	10.5		(PDDA/FDCA) ₈	8.5	