Electronic Supplementary Information

Enhanced Hole Injection into Indium-Free Organic Red Light-Emitting Diodes by Fluorine-Doping-Induced Texturing of a Zinc Oxide Surface

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Figure S1. The results for EDS elemental analysis of (a) undoped ZnO, (b) ZnO:F(0.2 at.%), (c) ZnO:F(0.5 at.%), and (d) ZnO:F(0.7 at.%) films grown at 140°C on Si substrates.



Figure S2. The chemical structures of the organic materials used in this work.