

Electronic Supplementary Information for

Influences of cation charge density on the photovoltaic performance of dye-sensitized solar cells: lithium, sodium, potassium, and dimethylimidazolium

Yushuai Shi^{a,c}, Yinghui Wang^b, Min Zhang^{*b} and Xiandui Dong^{*a}

^aEngineering Laboratory for Modern Analytical Techniques, State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Science, Changchun 130022, China. ^bState Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, China, and ^cGraduate School, Chinese Academy of Sciences, Beijing 100039, China

*To whom correspondence should be addressed. E-mail: min.zhang@ciac.jl.cn;
dxd@ciac.jl.cn.

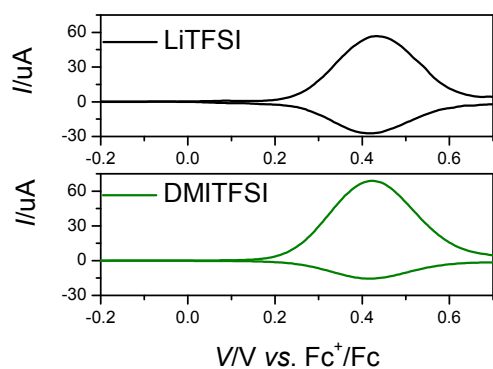


Fig. S1 Square-wave voltammograms of C106 dye-coated titania films. Supporting electrolyte 0.3 M LiTFSI and 0.3 M DMITFSI. The measured ground-state redox potential of C106 were both -5.565 eV *versus* vacuum.

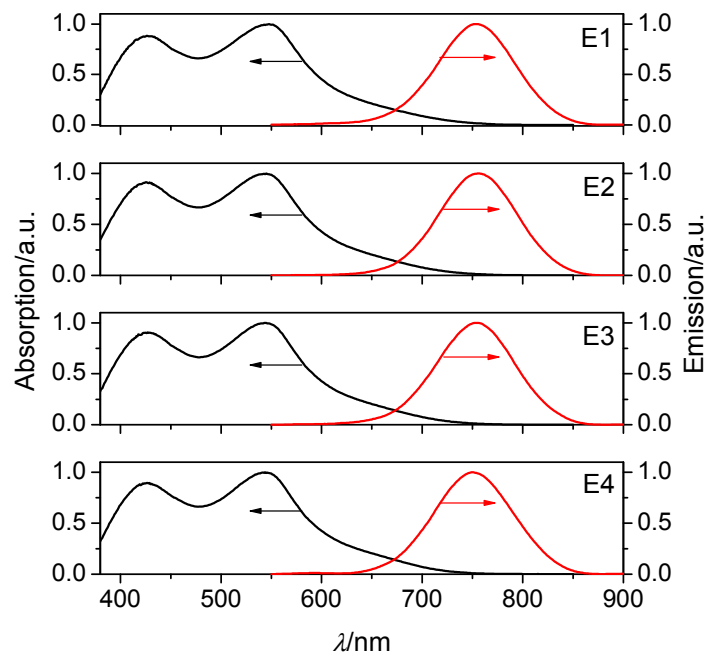


Fig. S2 Normalized absorptions and emissions of cells with electrolytes E1-E4. The obtained zero-zero transition energy E_{0-0} was 1.848 eV for all electrolyte systems.