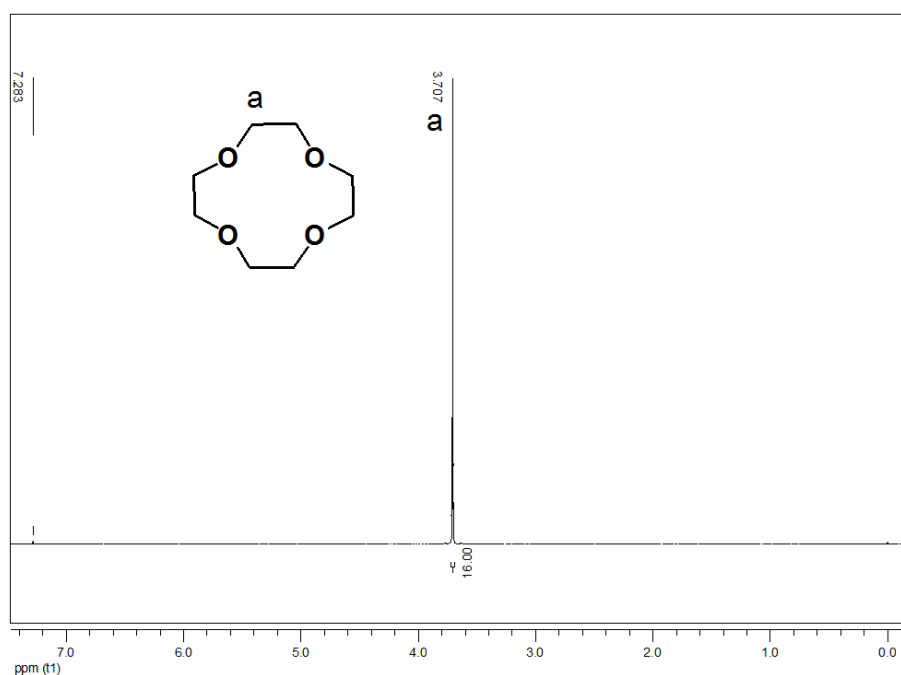


***Electronic Supplementary Information (ESI) for***  
**A novel solid-state electrolyte based on crown ether  
lithium salt complex**

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**Fig. S1** <sup>1</sup>H NMR spectrum of 12-crown-4

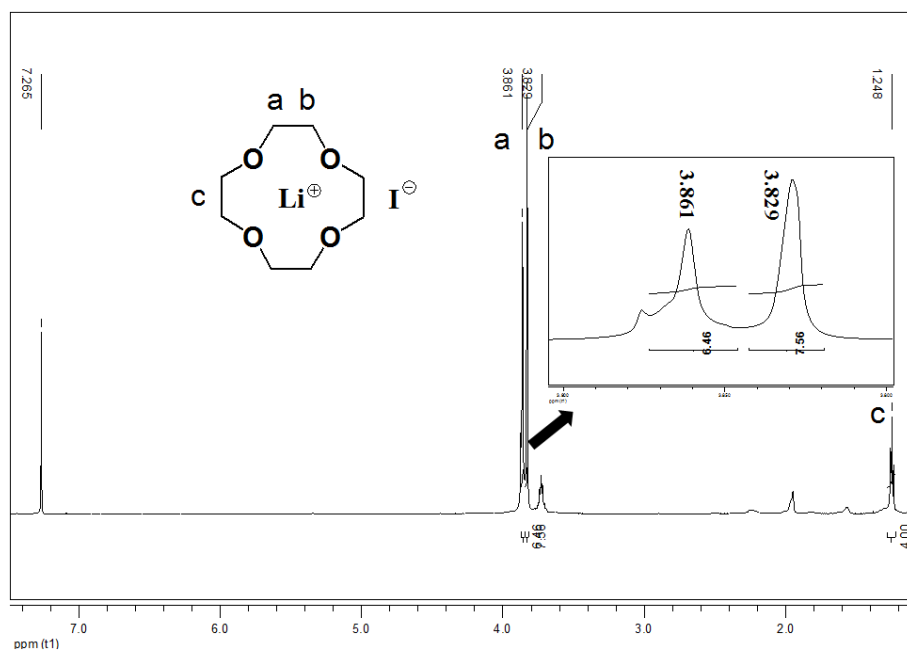


Fig. S2  $^1\text{H NMR}$  spectrum of  $[\text{Li}\epsilon 12\text{-C-4}][\text{I}]$

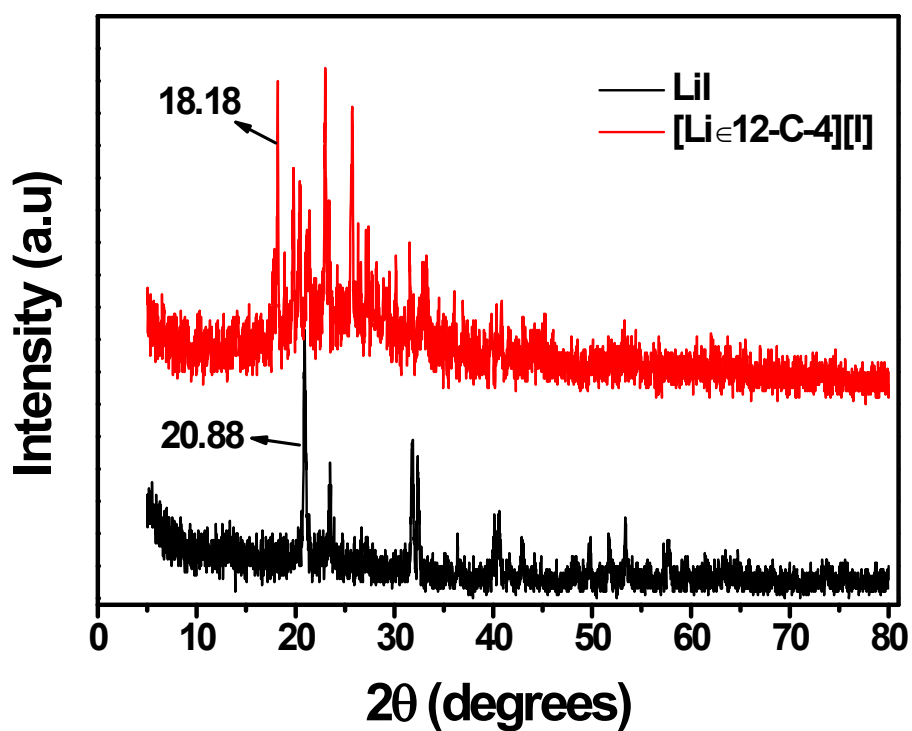


Fig. S3 XRD patterns of  $\text{LiI}$  and  $[\text{Li}\epsilon 12\text{-C-4}][\text{I}]$

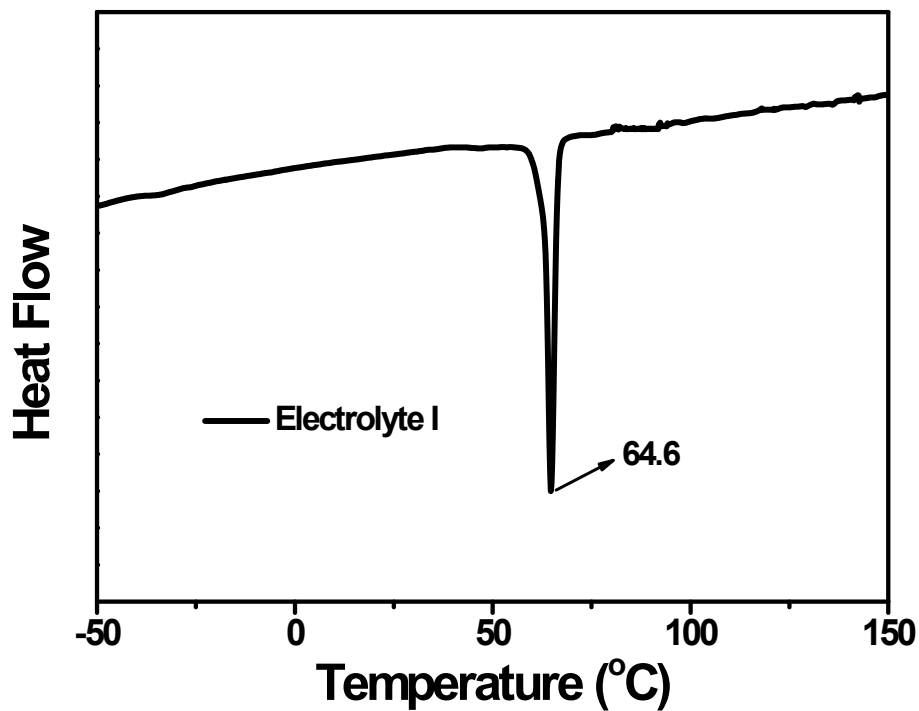


Fig. S4 Typical DSC curve of Electrolyte I with I<sub>2</sub>

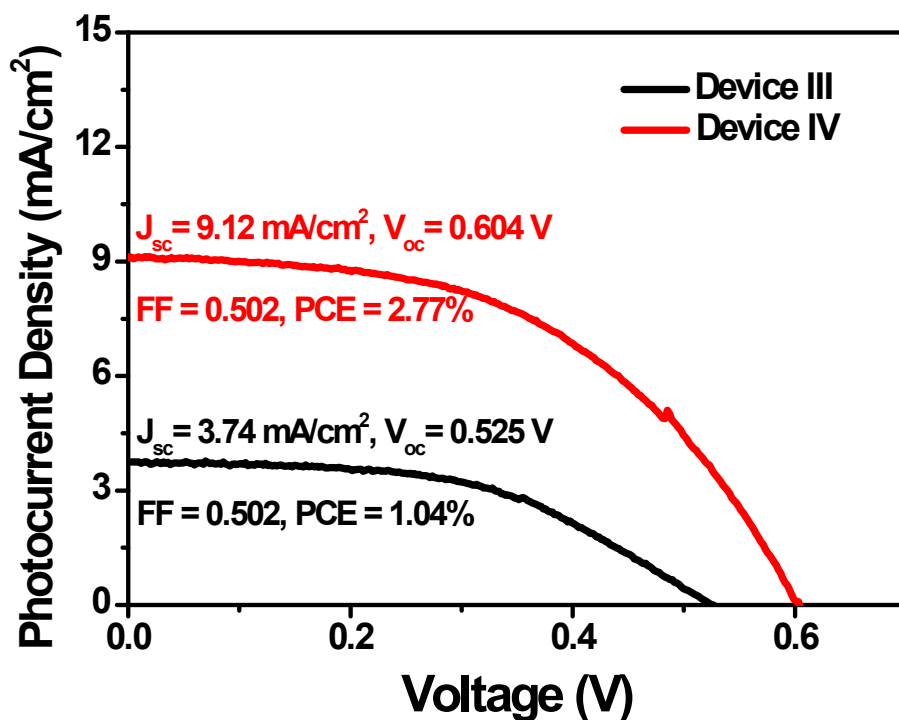


Fig. S5 J-V curves for solid-state DSSCs fabricated with Electrolytes B and G, respectively