

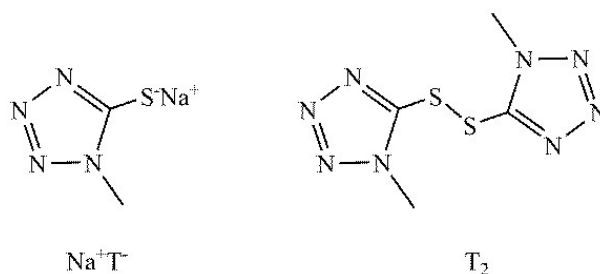
## Supplementary Information

### **Mo<sub>2</sub>C microspheres and nanorods as counter electrode catalysts for iodide-free redox couples in dye-sensitized solar cells**

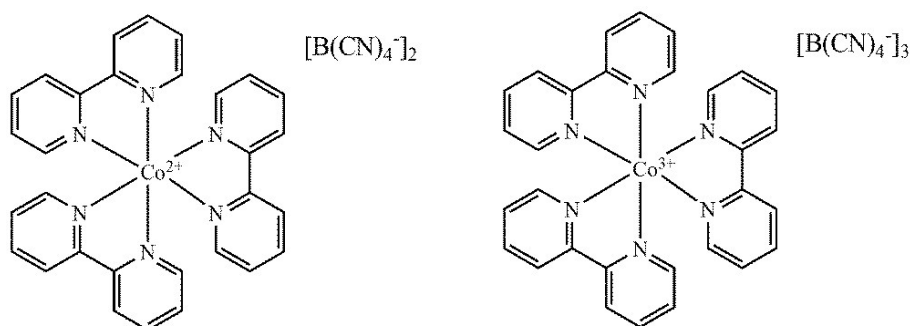
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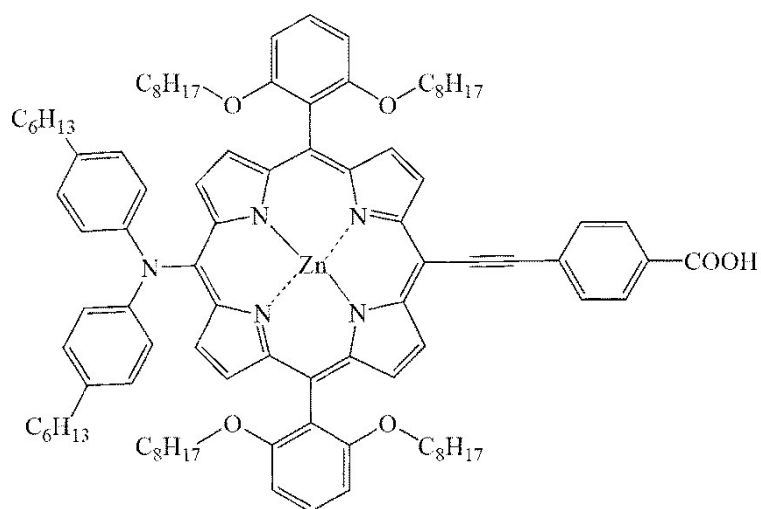
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**Fig. S1** Molecular structure of redox couple of T<sub>2</sub>/T<sup>-</sup>



**Fig. S2** Molecular structure of redox couple of Co<sup>3+/2+</sup>



**Fig. S3** Molecular structure of YD2-o-C8 dye.

**Table S1.** Photovoltaic parameters of the  $T_2/T^-$  electrolyte based DSSCs using different CEs.

CE	$V_{oc}/mV$	$J_{sc}/mA\ cm^{-2}$	FF	PCE/%
Mo <sub>2</sub> C-Ms	691	12.64	0.63	5.50
Mo <sub>2</sub> C-Nr	692	11.21	0.58	4.86
Pt	682	12.44	0.44	3.73