

Supplementary data to accompany:

The versatile SALSAC approach to heteroleptic copper(I) dye assembly in dye-sensitized solar cells

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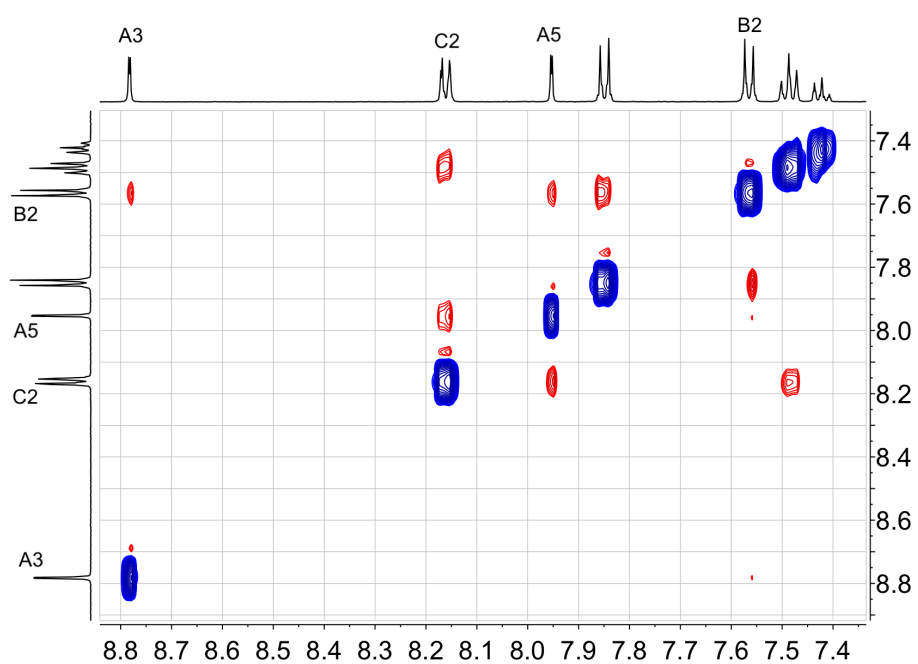


Figure S1. NOESY spectrum (500 MHz, 298 K, CD₂Cl₂) of 4. Chemical shifts in δ / ppm.

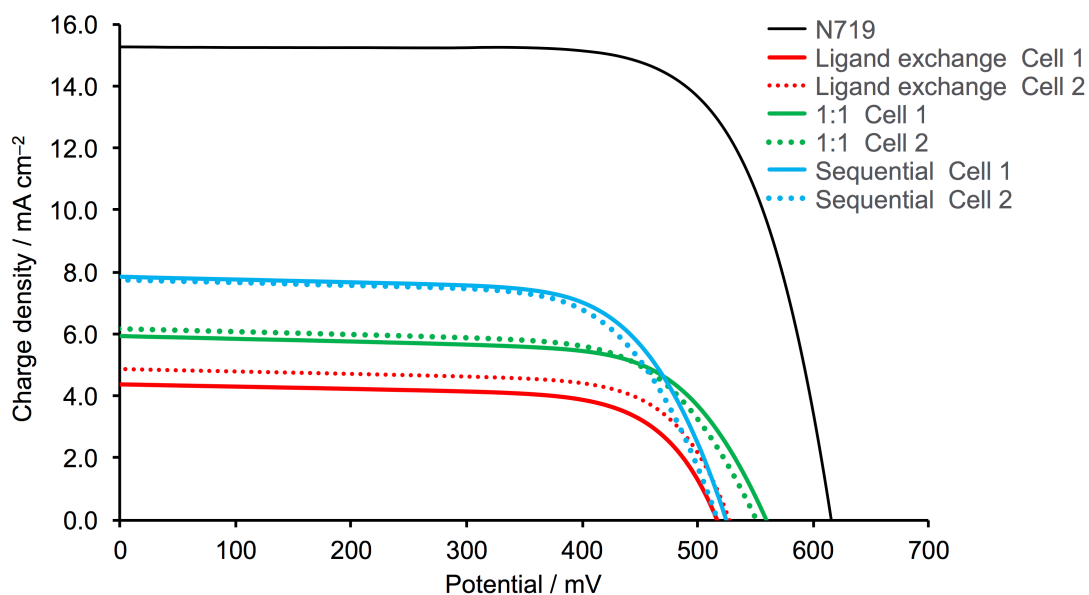


Figure S2. J - V curves for duplicate DSSCs with photoanodes assembled using the three dipping methods (ligand exchange, 1:1 mixture and sequential) described in the Materials and Methods section compared to a DSSC sensitized with N719.

Table S1. EQE maxima for DSSCs (cell 2 in each case, see Table 3) with photoanodes assembled using the three assembly protocols described in the Materials and Methods section.

Dye	Dipping procedure	On the day of DSSC fabrication	
		λ_{\max} / nm	EQE _{max} / %
[Cu(3)(4)] ⁺	Ligand exchange	480	31.9
[Cu(3)(4)] ⁺	1 : 1	470	49.1
[Cu(3)(4)] ⁺	Sequential	480	51.7
N719		540	68.5

Dye	Dipping procedure	3 days after DSSC fabrication	
		λ_{\max} / nm	EQE _{max} / %
[Cu(3)(4)] ⁺	Ligand exchange	470	23.9
[Cu(3)(4)] ⁺	1 : 1	470	47.8
[Cu(3)(4)] ⁺	Sequential	480	53.4
N719		530	67.6

Dye	Dipping procedure	7 days after DSSC fabrication	
		λ_{\max} / nm	EQE _{max} / %
[Cu(3)(4)] ⁺	Ligand exchange	470	24.1
[Cu(3)(4)] ⁺	1 : 1	470	48.1
[Cu(3)(4)] ⁺	Sequential	470	52.2
N719		540	66.6

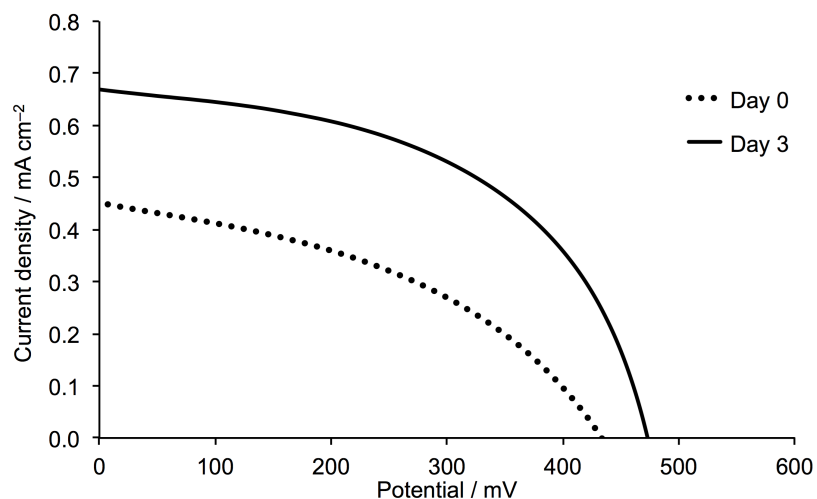


Figure S3. *J*-*V* curves of a DSSC in which the FTO/TiO₂ working electrode was immersed in a DMSO solution of anchor **3** (one day) followed by immersion in a MeCN solution of [Cu(MeCN)₄][PF₆] (one day). No ancillary ligand was used.

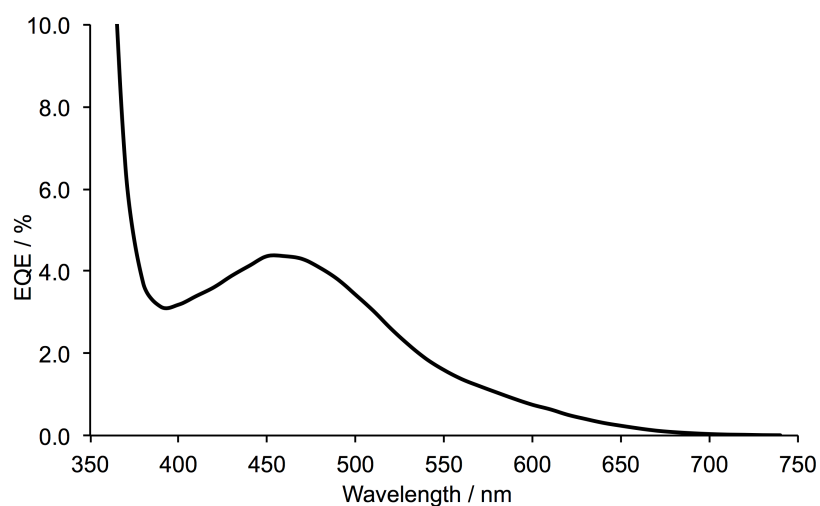


Figure S4. EQE spectrum of a DSSC in which the FTO/TiO₂ working electrode was immersed in a DMSO solution of anchor **3** (one day) followed by immersion in a MeCN solution of [Cu(MeCN)₄][PF₆] (one day). No ancillary ligand was used.

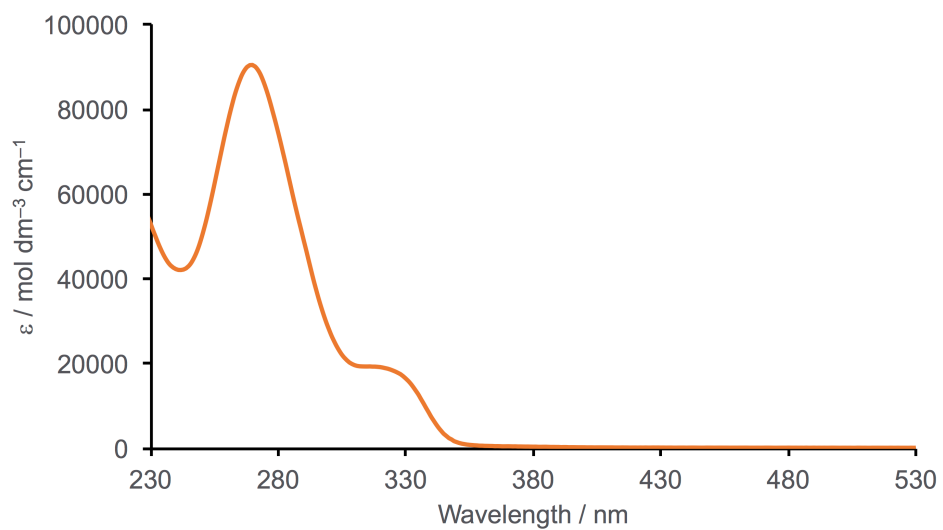


Figure S5. Solution absorption spectrum of compound **4** (CH_2Cl_2 , $1 \times 10^{-5} \text{ mol dm}^{-3}$).