Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Oxy Phosphorous Tetrabenzotriazacorrole: Firming Up the Chemical Structure and Identifying Organic Photovoltaic Functionality to Leverage Its Unique Dual Absorbance.

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Electronic Supporting Information.

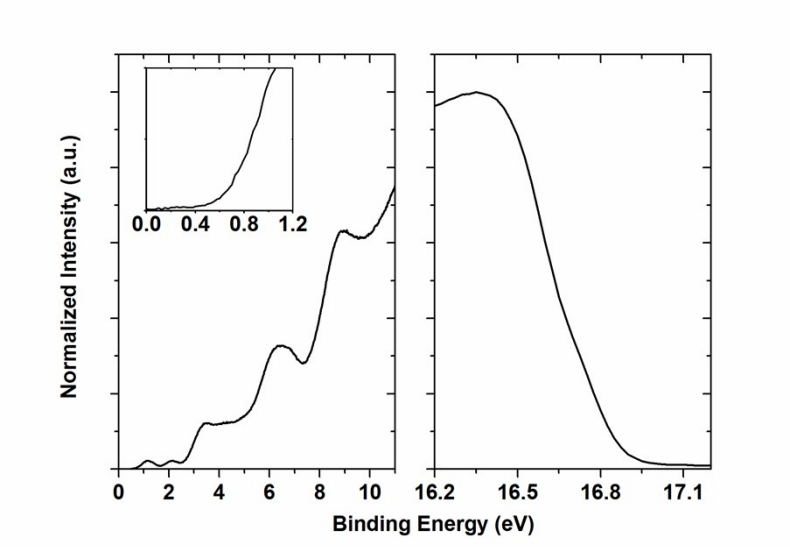


Figure S1. Ultraviolet photoelectron spectroscopy (UPS) showing the HOMO offset (left) and the secondary electron cutoff (right) of POTbc.

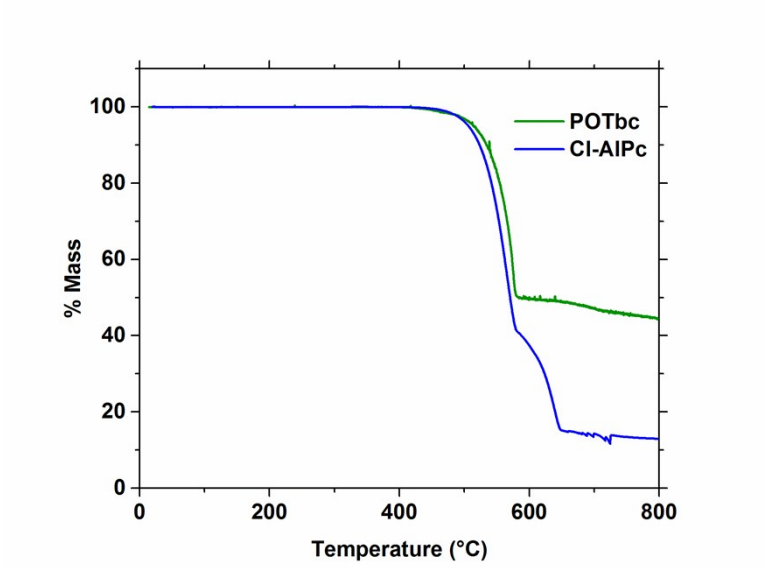


Figure S2. Thermogravimetric analysis (TGA) of POTbc and Cl-AlPc.

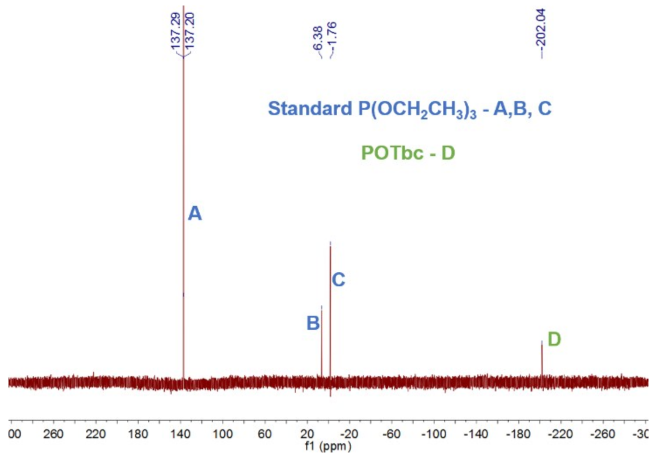


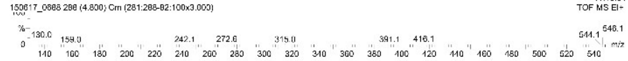
Figure S3. 31P NMR spectrum of POTbc in pyridine (10% CDCl3) and triethyl phosphite as a reference.

Elemental Composition Report **Page 1**

Single Mass Analysis
Tolerance = 10.0 PPM / DBE: min = -1.5, max = 50.0
Selected filters: None

Monoisotopic Mass, Odd and Even Electron Ions
577 formula(e) evaluated with 11 results within limits (all results (up to 1000) for each mass)
Elements Used:
C: 0-500 H: 0-1000 N: 0-10 O: 0-3 P: 0-1

HR2-47-S11-S11 UofT GCT 17-Jun-2015 11:40:04
150617_0688 288 (4.800) Cm (281:288-82:100x3.000) TOF MS EI+



Minimum:				-1.5		
Maximum:		5.0	10.0	50.0		
Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Formula
545.1142	545.1141	0.1	0.2	29.5	9030.5	C30 H14 N10 P
	545.1137	0.5	0.9	34.0	13125.5	C34 H11 N9
	545.1151	-0.9	-1.7	33.5	14561.1	C36 H13 N6 O
	545.1154	-1.2	-2.2	29.0	10269.6	C32 H16 N7 O P
	545.1164	-2.2	-4.0	33.0	16082.2	C38 H15 N3 O2
	545.1167	-2.5	-4.6	28.5	11614.9	C34 H18 N4 O2 P
	545.1114	2.8	5.1	25.0	6036.8	C27 H16 N9 O3 P
	545.1111	3.1	5.7	29.5	9742.6	C31 H13 N8 O3
	545.1178	-3.6	-6.6	32.5	17658.1	C40 H17 O3
	545.1181	-3.9	-7.2	28.0	13034.1	C36 H20 N O3 P
	545.1095	4.7	8.6	32.5	17241.7	C40 H15 O P

Figure S4. High resolution mass spectrum of POTbc.