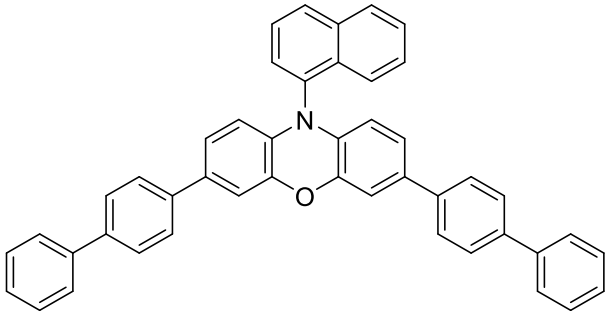
Phenox O-PC™ A0202



Physical properties

Product name	Phenox O-PC™ A0202
Scientific name	3,7-di([1,1'-biphenyl]-4-yl)-10-(naphthalen-1-yl)-10H-phenoxazine
MilliporeSigma catalog #	901111
CAS number	1987900-95-7
Formula	$C_{46}H_{31}NO$
Molecular weight	613.76
Appearance	Yellow powder or crystals
Purity	≥ 97%
Maximum solubilities at 25°C	Water: TBD DMSO: TBD MeOH: TBD DMF: TBD MeCN: TBD DCM: TBD Toluene: TBD

Photo/electrochemical properties

Character	Strong reductant/ energy transfer sensitizer
$E^o(^2PC^{\bullet+}/^1PC^*)$	-1.80 V vs. SCE
$E_{1/2}(^2PC^{\bullet+}/^1PC)$	0.65 V vs. SCE (reversible CV)
$\lambda_{max,em}$	506 nm (2.45 eV)
$\lambda_{max,abs}$	388 nm
$\varepsilon_{max,abs}$	26600 $M^{-1}cm^{-1}$
Application notes	• C-N, C-O, C-S, and C-C cross-couplings. • Reduction of alkyl halides for vinyl or aromatic addition/ substitution (e.g. trifluoromethylation) • Atom transfer radical polymerization

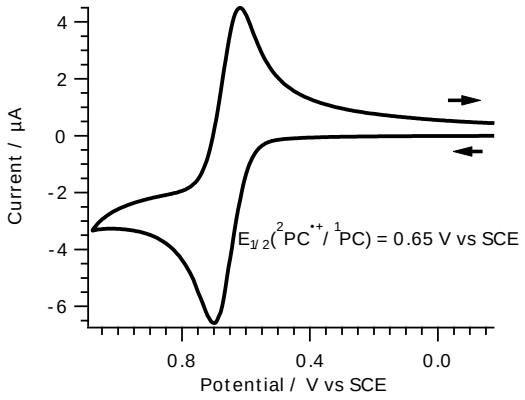


Figure 1: Cyclic voltammetry for 1e⁻ oxidation of ground state ^1PC in DMF with 0.1 M $TBAPF_6$ at 100 mV/s.

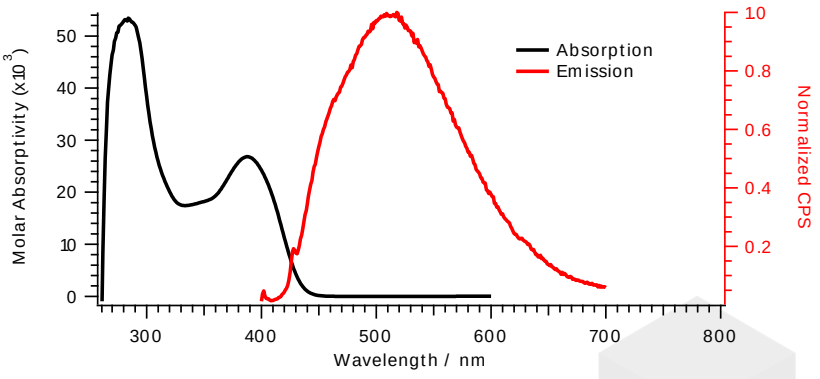


Figure 2: UV-vis absorption and emission spectrum in DMF.