Dielectric properties and electronic absorption: a comparison of novel azoand oxo-bridged phthalocyanines



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Fig.S1 The variation of imaginary part of impedance with temperature for (a) 4 (b) 5 and (c)10.



Fig. S2 Room temperature impedance spectra for all Pcs investigated.



Fig. S3. Frequency dependence of the $\acute{\epsilon}$ of thin film of (a) 4, (b) 5 and (c) 10 at indicated temperatures.



Fig. S4 Variation of ϵ with temperature at selected frequencies for (a) 4, (b) 5 and (c) 10.



Fig. S5. The UV–Vis spectra of **4** in the range of $0.2-1.6 \times 10^{-5}$ mol dm⁻³ in DMSO. The inset shows the plot of absorbance vs. concentration.



Fig. S6. The UV–Vis spectra of **9** in the range of $0.2-1.6 \times 10^{-5}$ mol dm⁻³ in DMSO. The inset shows the plot of absorbance vs. concentration.



Fig. S7. The ¹H-NMR spectra of **3** in chloroform-d.



Fig. S8. The ¹H-NMR spectra of **8** in DMSO-d6.



Fig. S9 ¹³C-NMR spectrum of compound **8** in DMSO-d6.



Fig. S10 MALDI-TOF mass spectrum of compound 4.



Fig. S11 MALDI-TOF mass spectrum of compound 5.



Fig. S12 MALDI-TOF mass spectrum of compound 9.



Fig. S13 MALDI-TOF mass spectrum of compound 10.