SUPPLEMENTARY INFORMATION

Electropolymerizable Peripherally Tetra-{2-[3-(Diethylamino)phenoxy]ethoxy} Substituted As Well As Axially (4-Phenylpiperazin-1-yl)propanoxy-Disubstituted Silicon Phthalocyanines and Their Electrochemistry

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1.1. Materials

2(3),9(10),16(17),23(24)-Tetrakis-{2-[3-(diethylamino)phenoxy]ethoxy}phthalocyanine **1** and 1-(3-chloropropyl)-4-phenylpiperazine **3** were synthesized according to the literature.[1,2] All reagents and solvents were of reagent grade quality and were obtained from commercial suppliers. All solvents were dried and purified as described by Perrin and Armarego.[3]

1.2. Equipment

The IR spectra were recorded on a Perkin Elmer 1600 FT-IR Spectrophotometer, using KBr pellets. ^{1}H and ^{13}C-NMR spectra were recorded on a Bruker Avance III 400 MHz spectrometers in $CDCl_3$ and chemical shifts were reported (δ) relative to Me_4Si as internal standard. MALDI-MS of complexes were obtained in dihydroxybenzoic acid as MALDI matrix using nitrogen laser accumulating 50 laser shots using Bruker Microflex LT MALDI-TOF mass spectrometer Bremen, Germany). Optical spectra in the UV-vis region were

recorded with a Perkin Elmer Lambda 25 spectrophotometer. Melting points were measured on an electrothermal apparatus and are uncorrected. The elemental analyses were performed on a Costech ECS 4010 instrument. A Seiko II Exstar 6000 thermal analyzer was used to record DTA curves under nitrogen atmosphere with a heating rate of 20 °Cmin^{-1} in the temperature range 30-900 °C using platinium crucibles.

1.3. Electrochemical measurements

The cyclic voltammetry (CV) and square wave voltammetry (SWV) measurements were carried out with Gamry Interface 1000 potentiostat/galvanostat controlled by an external Pc and utilizing a three-electrode configuration at 25°C. The working electrode was a Pt disc with a surface area of 0.071 cm^2. A Pt wire served as the counter electrode. Saturated calomel electrode (SCE) was employed as the reference electrode and separated from the bulk of the solution by a double bridge. Electrochemical grade TBAP in extra pure DCM was employed as the supporting electrolyte at a concentration of 0.10 mol dm^{-3}.

References

[1] Z. Bıyıklıoğlu, V. Çakır, F. Demir, A. Koca, *Synth. Met.,* 2014, **196**, 166-172.

[2] E. Krzyzak, B. S. Siega, W. Malinka*, J. Therm. Anal. Calorim.* 2014, **115**, 793-802

[3] D. D. Perrin, W. F. L. Armarego, Purification of Laboratory Chemicals (2nd edn), Pergamon Press: Oxford; 1989.

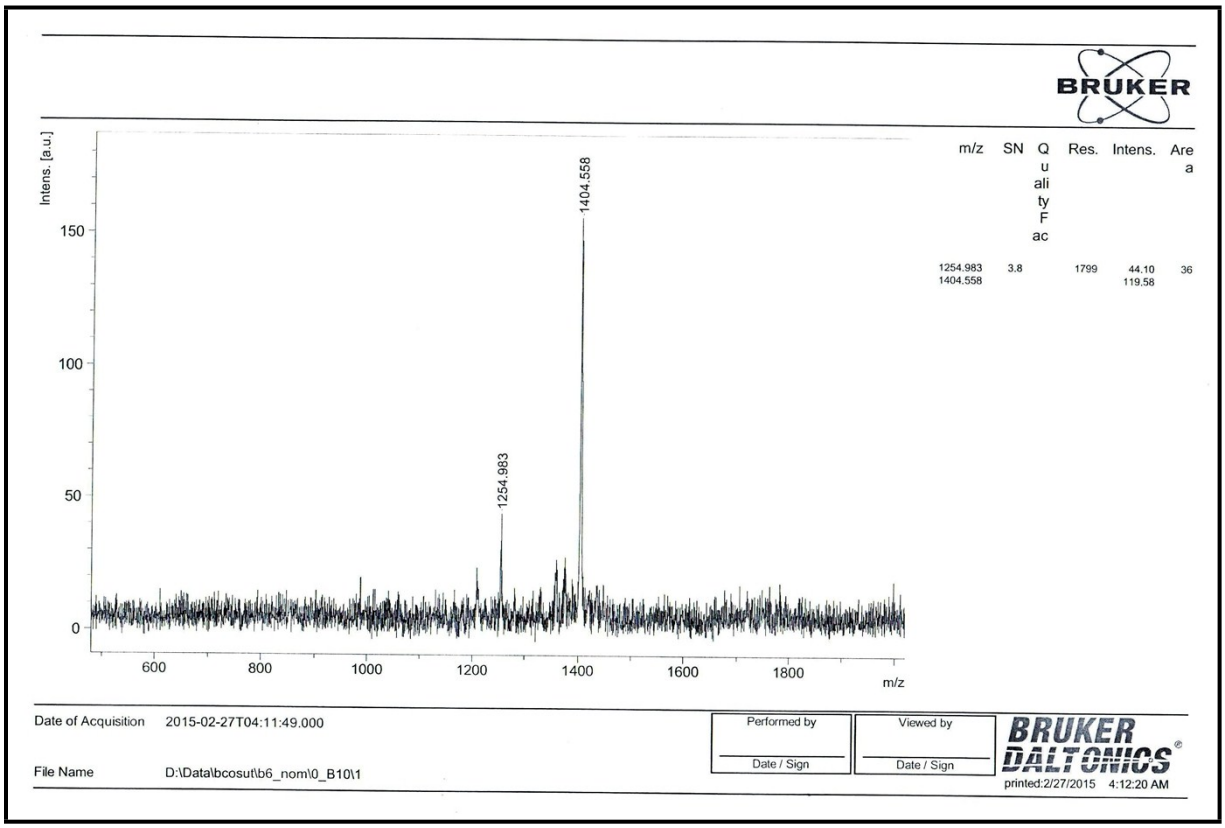

Figure S1. MALDI-TOF MS spectrum of complex **2**.

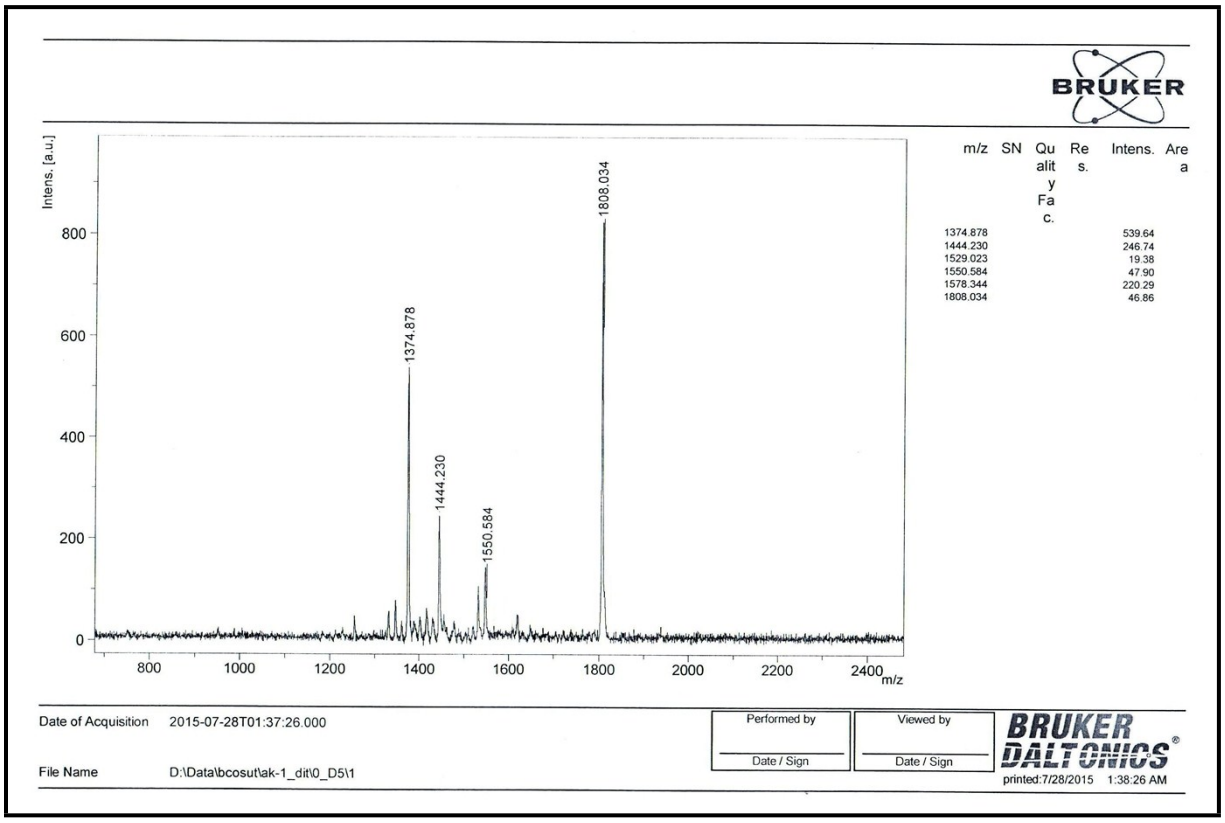

Figure S2. MALDI-TOF MS spectrum of complex **4**.