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5-[o-(1-L-Phenylalanylamino)ethoxyl]phenyl-10,15,20-triphenylporphyrin

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5-[o-(2-bromo-1-ethoxy)]phenyl-10,15,20-triphenylporphyrin (1) was prepared according to published method [1]. The mixture of 1 (0.35mmol), L-phenylalanine (2.60mmol), BTEAC (28mg) and anhydrous potassium carbonate (4g) was stirred in DMF (50ml) at room temperature for 72 hours. Reaction mixture was then poured into satured NaCl solution (150ml). The precipitate was filtered and washed several times with water, dried in vacuum. The crude product was purified by chromatography on silica gel. The column was first washed sufficiently with chloroform and then CHCl₃:CH₃CH₂OH (v:v, 1:1) was used as eluent and the second band was collected. The solvent was evaporated to give 0.034g (11.8%) of 5-[o-(1-L-Phenylalanylamino)ethoxyl]phenyl-10,15,20-triphenylporphyrin (2) as a purple solid.

IR (KBr): 3314 (w), 3025 (w), 1594 (m), 1489 (w), 1470 (m), 1440 (m), 1391 (w), 1347 (m), 1307 (w), 1239 (w), 1208 (w), 1180 (w), 1155 (w), 1116 (w), 1068 (m), 1027 (w), 1000 (w), 965 (s), 918 (w), 845 (w), 796 (s), 724 (s), 700 (s), 656 (w), 554 (w), 403 (w).

UV-Vis (DMSO): 418.5, 514.5, 548.9, 589.7, 645.3.

¹H-NMR (400 MHz, d⁶-DMSO/CDCl₃, 1:1, V:V): -2.90 (s, 2H, pyrrole NH), 1.18 (m, 1H, C*H), 1.58 (br. s, 1H, CH₂), 1.77 (br. s, 1H, CH₂), 2.06 (br. s, 1H, NH), 2.24 (br. s, 1H, CH₂), 2.55 (br. s, 1H, CH₂), 3.90 (br. d, 2H, CH₂), 6.04 (br. s, 2H, phenyl of Phe), 6.44 (br. s, 2H, Phenyl of Phe), 6.61(br. s, 1H, phenyl of Phe), 7.30-8.09 (several m, 19H, TPP Ph-H), 8.74 (br. s, 8H, pyrrole -H).

FAB-MS ([M+1]⁺): 822.

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Reference

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Sample Availability: Available from the authors and from MDPI.

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