

Supplementary Material

Sulfonamide Porphyrins as Potent Photosensitizers against Multidrug-Resistant *Staphylococcus aureus* (MRSA): the Role of Co-Adjuvants

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Instrumentation and reagents

All the commercial reagents for this work were used directly in all reactions due to their high purity. The evolution of the reactions over the time was motorized by TLC pre-coated with silica gel sheets 60 (Merck). Purifications by column chromatography were performed on silica gel 60. The ^1H and ^{13}C NMR spectra were recorded in a Bruker AMX 300 NMR spectrometer at 300.13 and 75.4 MHz, respectively. The chemical shifts are expressed in δ (ppm) related to TMS as internal reference ($\delta = 0.00$ ppm) and the coupling constants (J) in Hertz (Hz). The mass spectra were recorded in an ESI-MS model ionization electrospray spectrometer and HRMS-ESI.

All the solvents used were purified by described methods [1]. The purity of the compounds was confirmed by chromatography, ^1H NMR and fluorescence emission spectroscopy.

5,10,15,20-Tetrakis[4-(*N*-ethylsulfamoyl)phenyl]porphyrin (TPP(SO₂NH₂)₄)

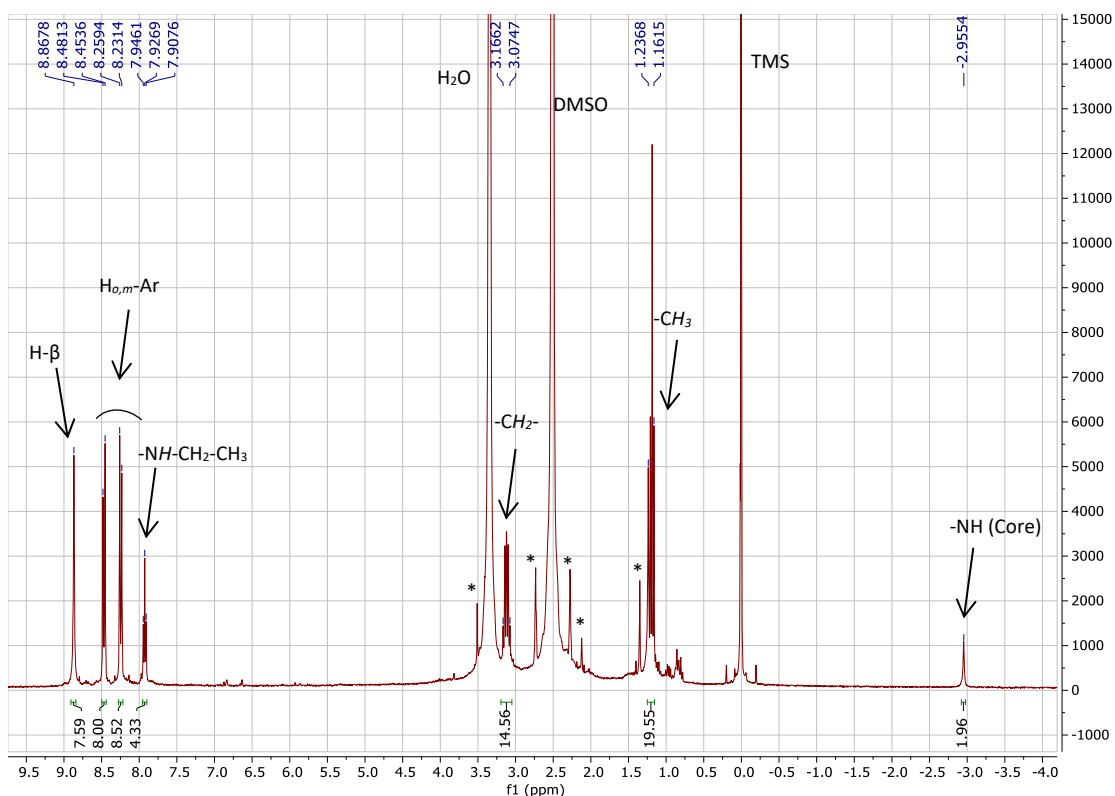


Figure S1. ^1H NMR of TPP(SO₂NH₂)₄ in DMSO-*d*₆. (* Spinning sidebands and/or residual solvents.)

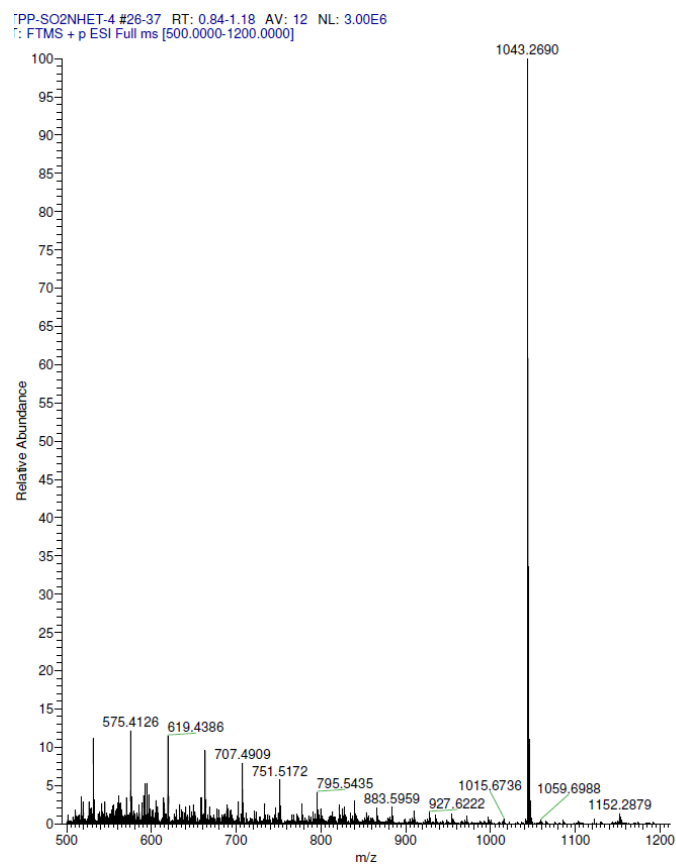


Figure S2. HRMS of TPP(SO₂NHET)₄.

5,10,15,20-Tetrakis[4-(N-ethylsulfamoyl)phenyl]porphyrinatezinc(II) (ZnTPP(SO₂NHET)₄)

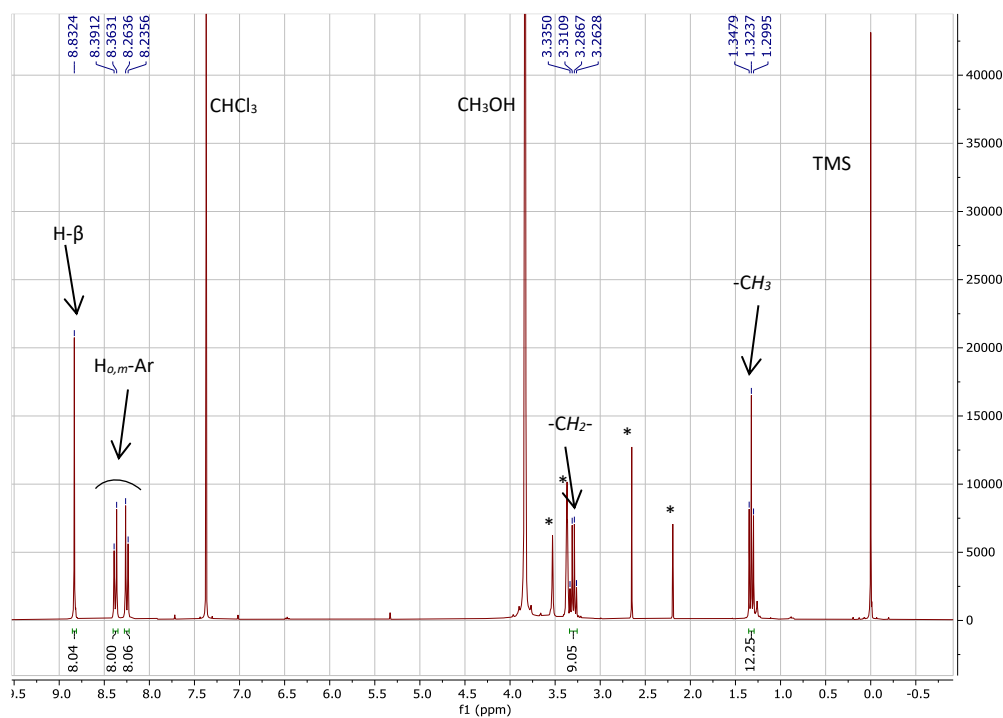


Figure S3. ¹H NMR of ZnTPP(SO₂NHET)₄ in CDCl₃/CD₃OD (98:2). (* Spinning sidebands and/or residual solvents).

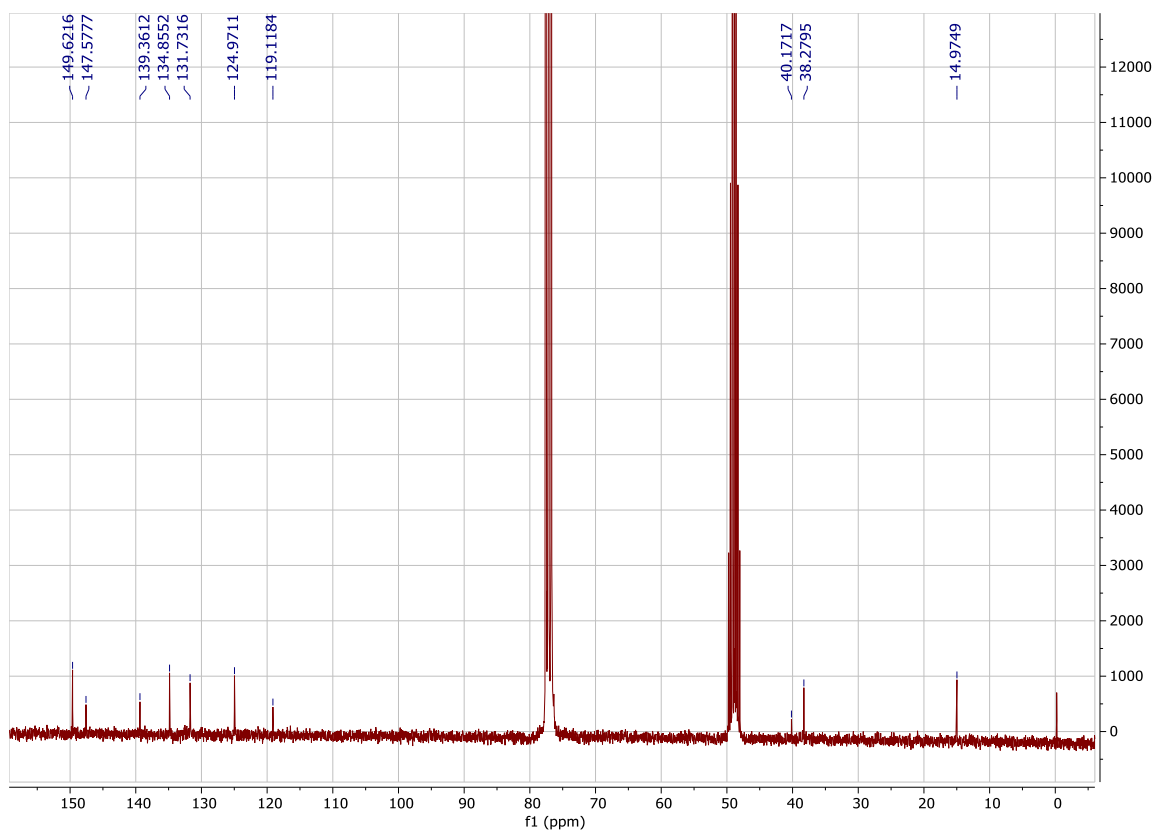


Figure S4. ¹³C NMR of ZnTPP(SO₂NH_{et})₄ in CDCl₃/CD₃OD (98:2).

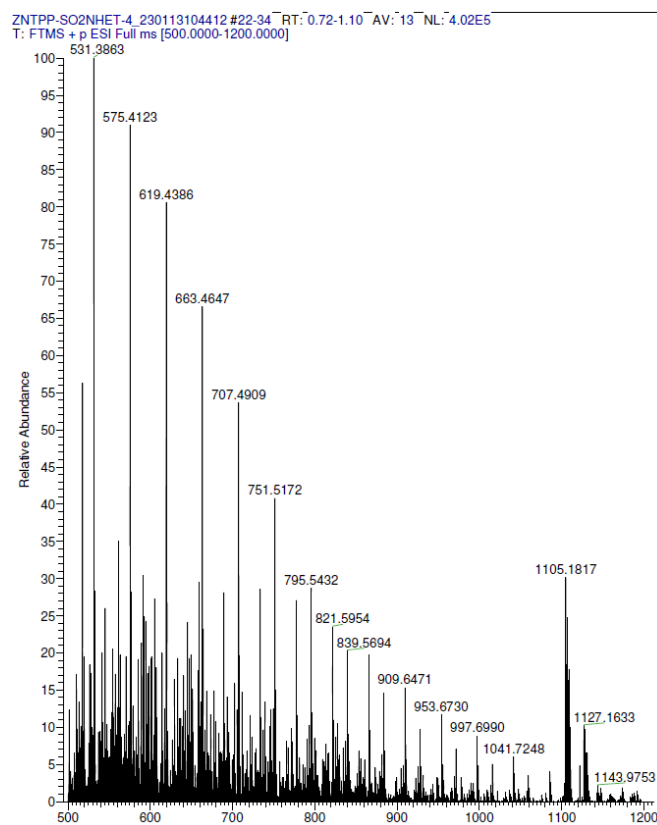


Figure S5. HRMS-ESI of ZnTPP(SO₂NH_{et})₄.

5,10,15,20-tetrakis(4-sulfophenyl)porphyrin, TPP(SO₃H)₄

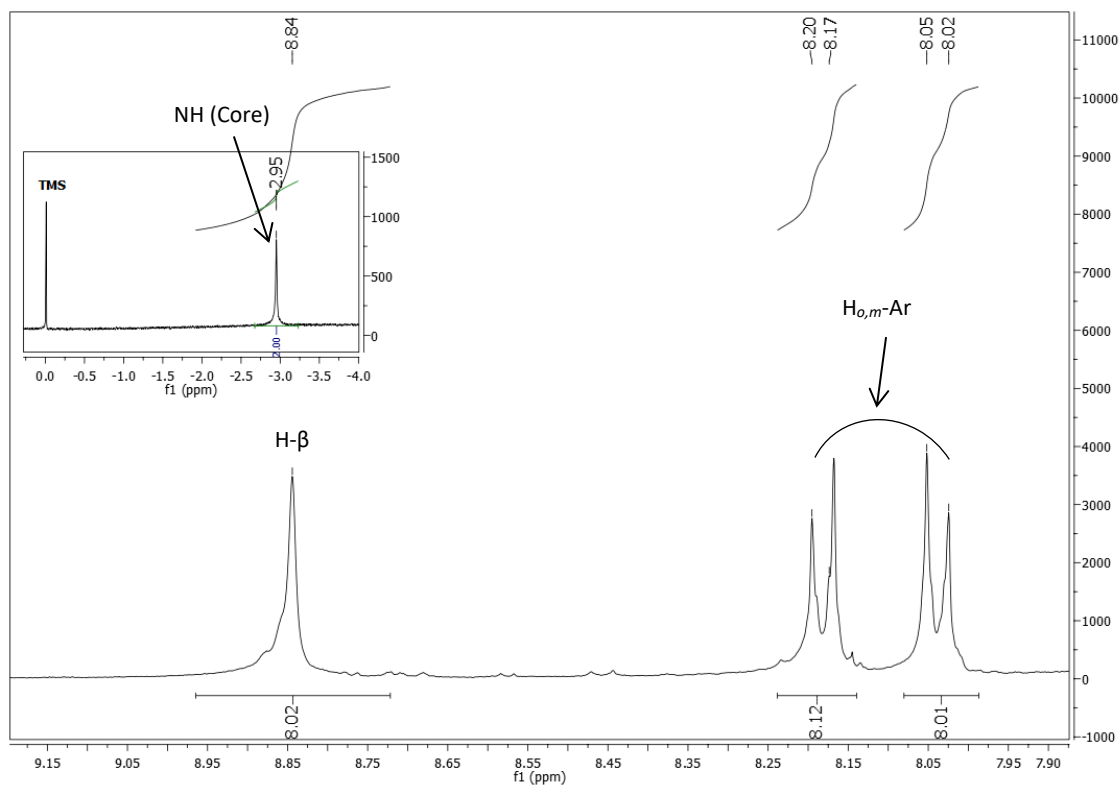


Figure S6. ¹H NMR of TPP(SO₃H)₄ in DMSO-*d*₆ (In the main spectrum the expansion of aromatic region is present. Inset the expansion of the shielded porphyrin core inner protons).

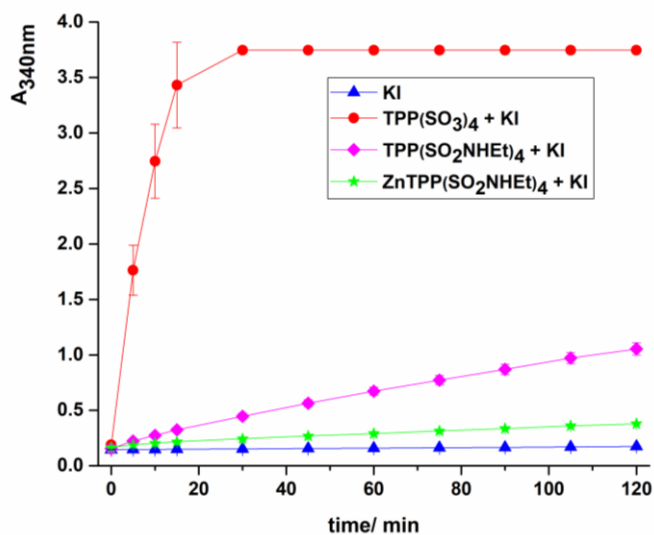


Figure S7. Iodine monitoring formation at 340 nm after irradiation with white light at an irradiance of 25 mW cm⁻² during 120 min of a solution containing each PS (TPP(SO₃H)₄, TPP(SO₂NH₂)₄ and ZnTPP(SO₂NH₂)₄) at a concentration of 5.0 μM and KI at 100 mM. Error bars corresponds to the standard deviation.

Reference

1. Perrin, D.D.; Armarego, W.L.F.; Perrin, D.R. *Purification of Laboratory Chemicals*, 2nd ed.; Pergamon Press: Oxford, 1980.