

Electronic Supplementary Information for FD 170 Two-step Mechanochemical Synthesis of Porphyrins

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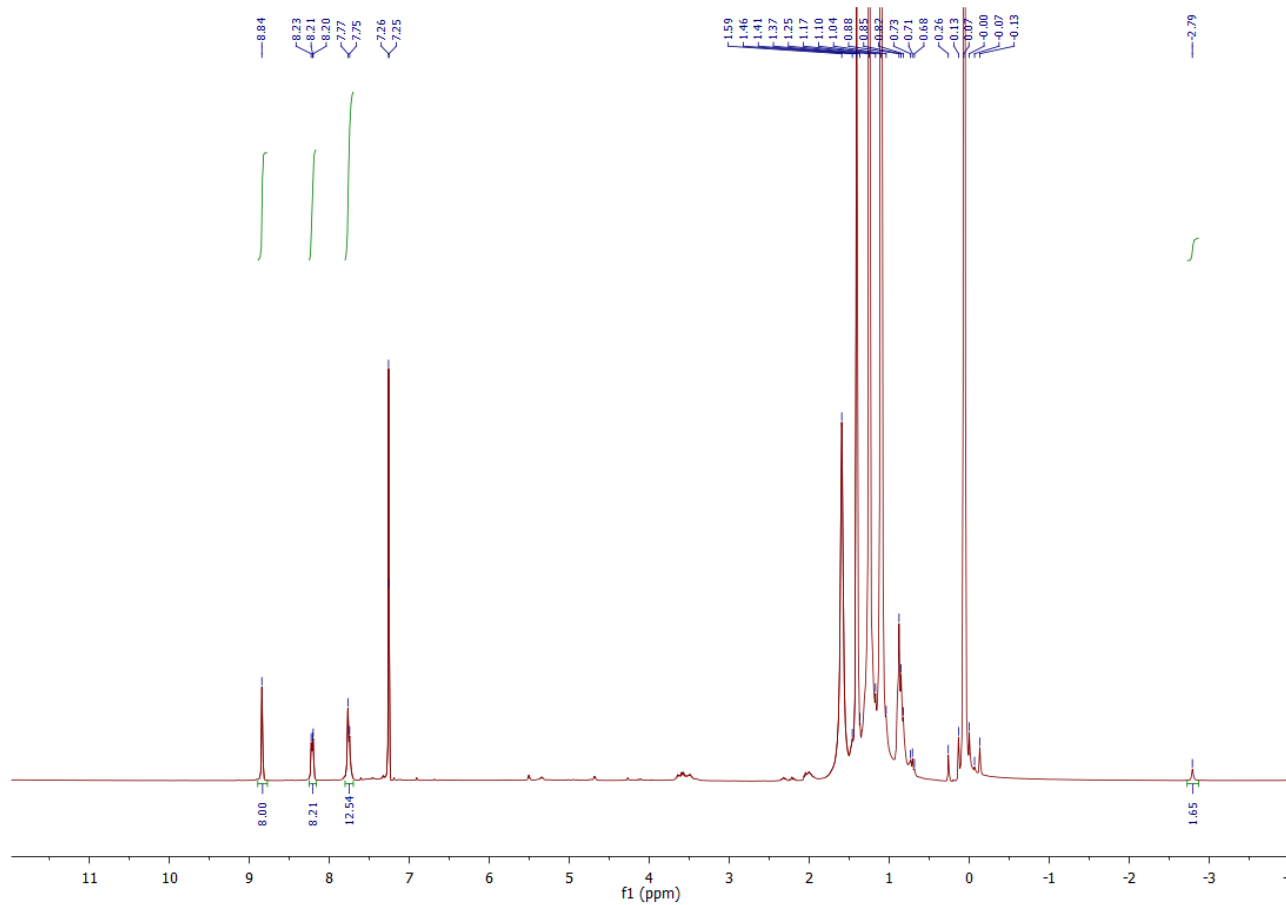


Figure S1. ¹H NMR spectrum of TPP produced by mechanochemical condensation followed by oxidation in solution.

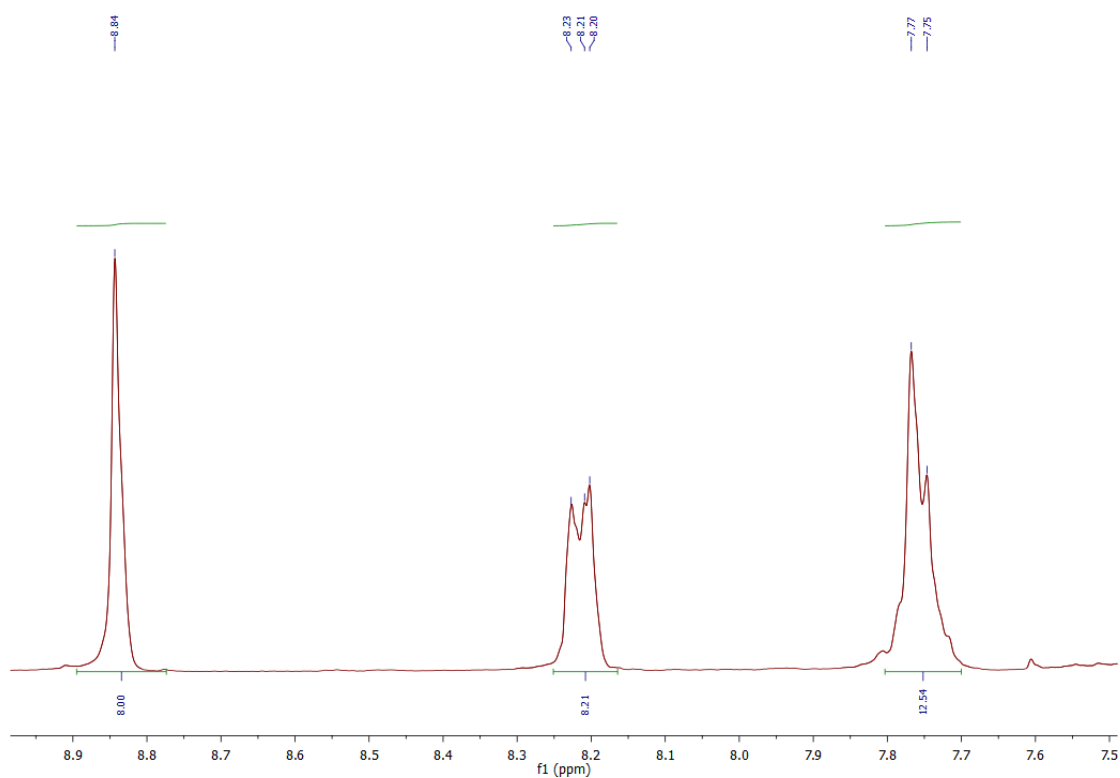


Figure S2. Expansion of the region from 9-7.5 ppm from Figure S1.

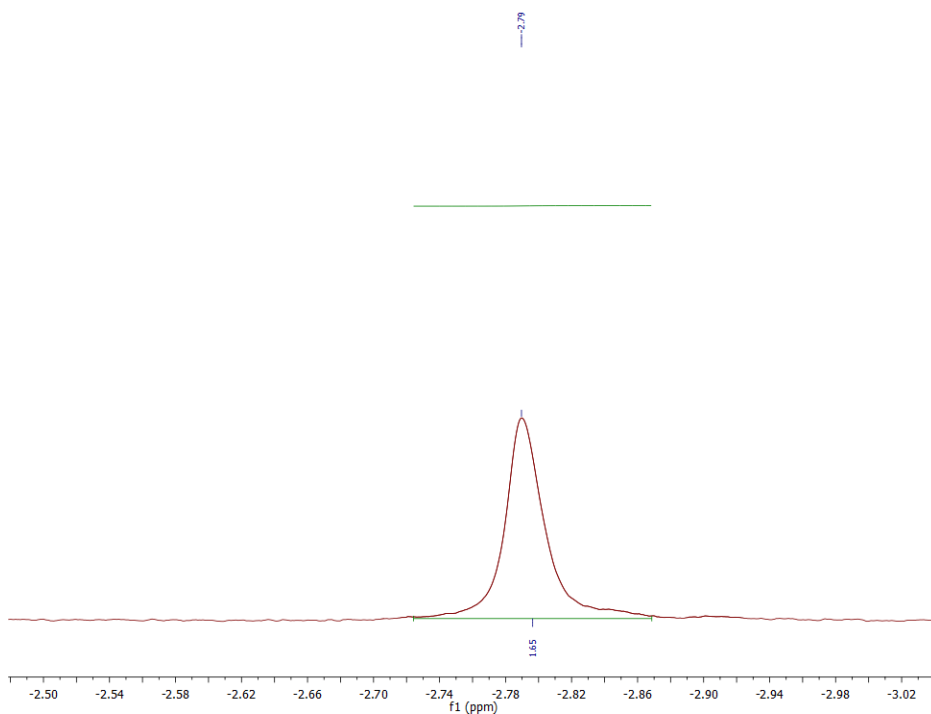


Figure S3. Expansion of the region from -2.5 to -3 ppm from Figure S1

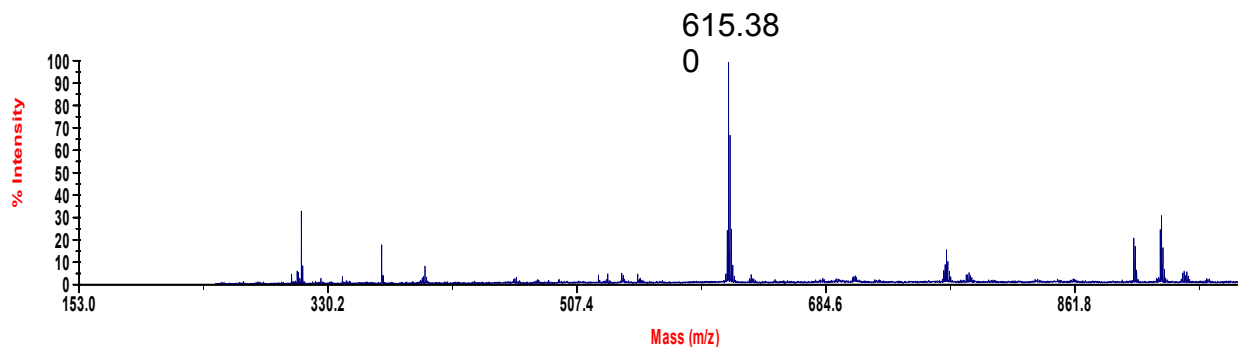


Figure S4. MALDI-TOF Mass spectrum of TPP

Table S1. EcoScale penalty points for Lindsey synthesis of TPP

Category	Penalty Points
Yield	35
Price of reaction components	37
Safety	60
Technical setup	1
Temperature/ time	3
Workup and purification	10
Total	146
EcoScale (100-Total)	-46

Table S2. EcoScale penalty points for mechanochemical condensation followed by oxidation in solution

Category	Penalty Points
Yield	37.5
Price of reaction components	32
Safety	50
Technical setup	1
Temperature/ time	3
Workup and purification	10
Total	133.5
EcoScale (100-Total)	-33.5

Table S3. EcoScale penalty points for two-step mechanochemical synthesis

Category	Penalty Points
Yield	45.36
Price of reaction components	15
Safety	30
Technical setup	0
Temperature/ time	0
Workup and purification	3
Total	93.36
EcoScale (100 – Total)	6.64