

# Octa-substituted Co(II) and Mn(II) phthalocyanines containing butyl-4-hydroxybenzoate groups: Synthesis, characterization, aggregation, and investigation of their anti-microbial and anti-fungal activity properties

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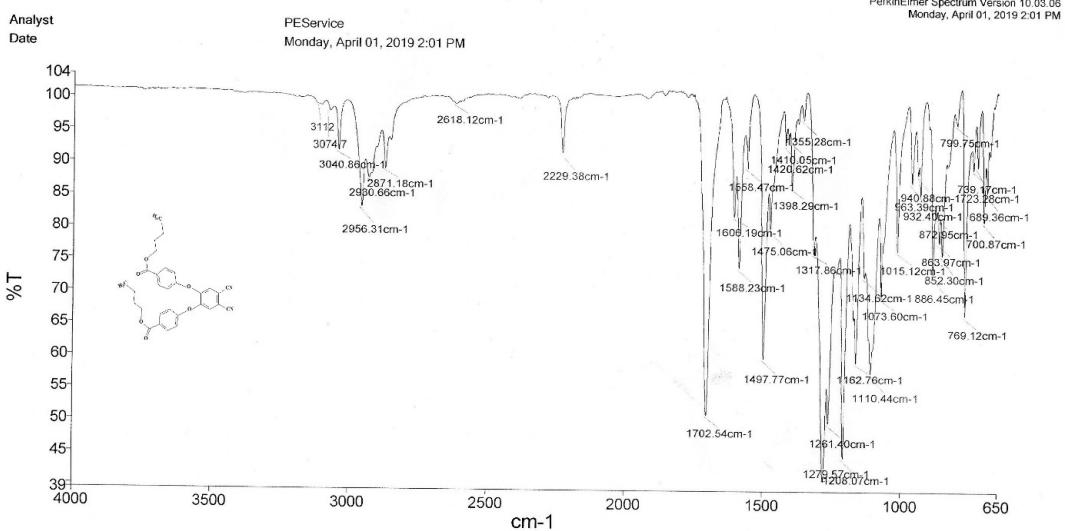


Fig. S1- Dibutyl 4,4'-[{(4,5-dicyano-1,2-phenylene)bis(oxy)]dibenzoate (1) IR Spectrum

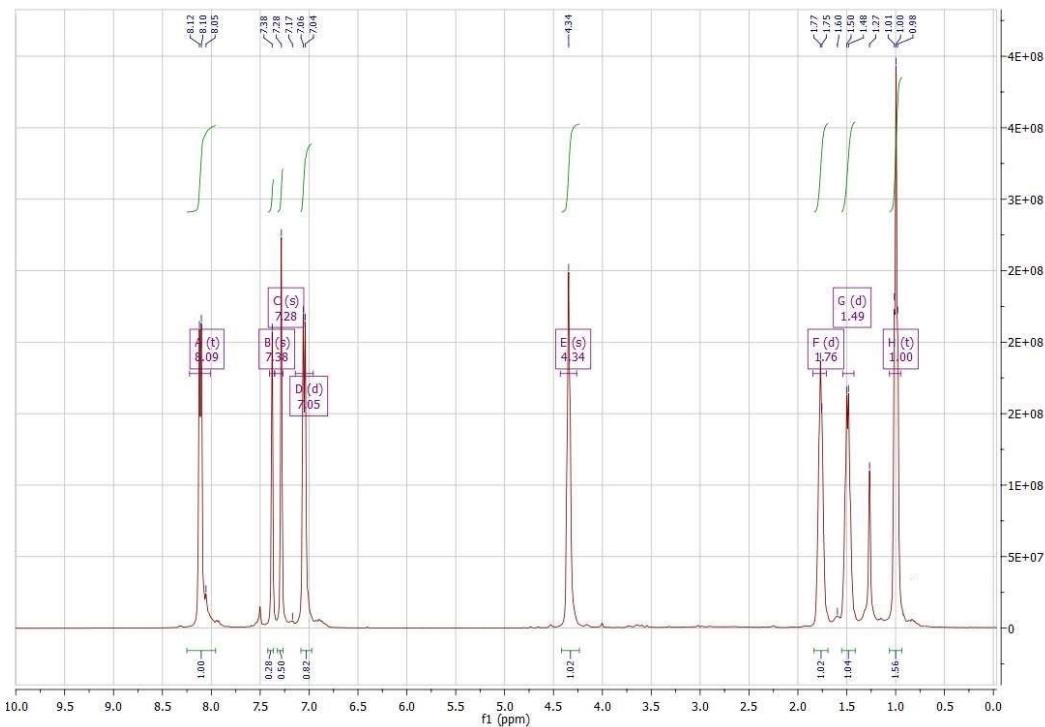


Fig. S2- Dibutyl 4,4'-[{(4,5-dicyano-1,2-phenylene)bis(oxy)]dibenzoate (1) <sup>1</sup>H-NMR Spectrum

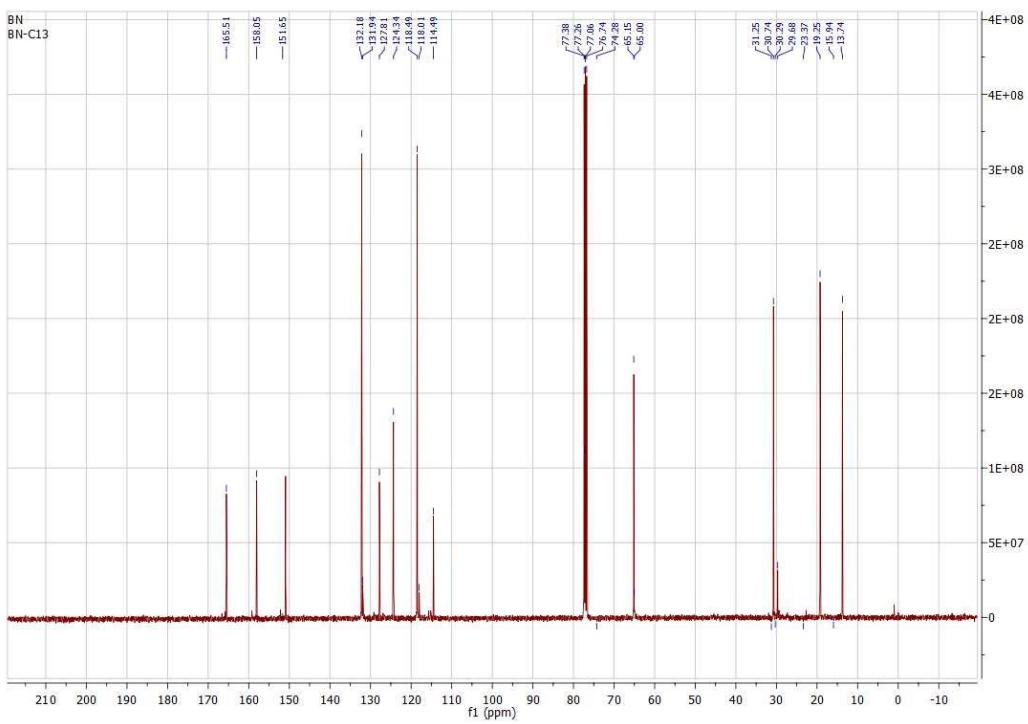


Fig. S3- Dibutyl 4,4'-(4,5-dicyano-1,2-phenylene)bis(oxy)]dibenzoate (**1**) <sup>13</sup>C-NMR Spectrum

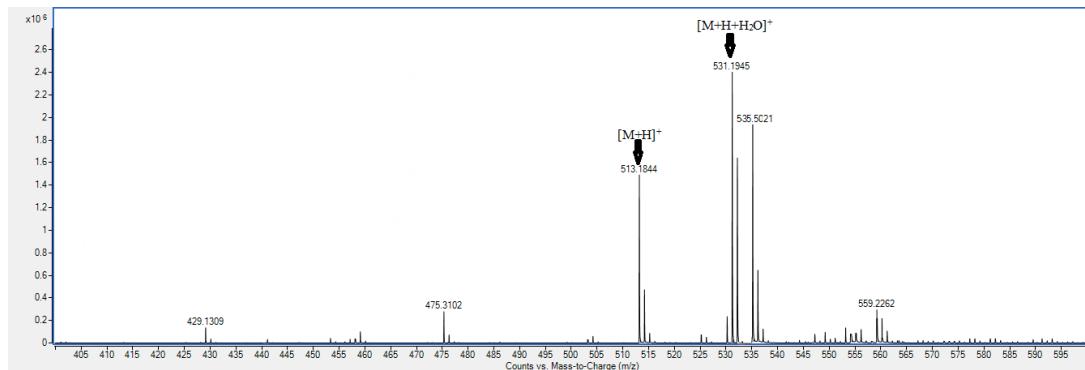


Fig. S4- Dibutyl 4,4'-(4,5-dicyano-1,2-phenylene)bis(oxy)]dibenzoate (**1**) Mass Spectrum

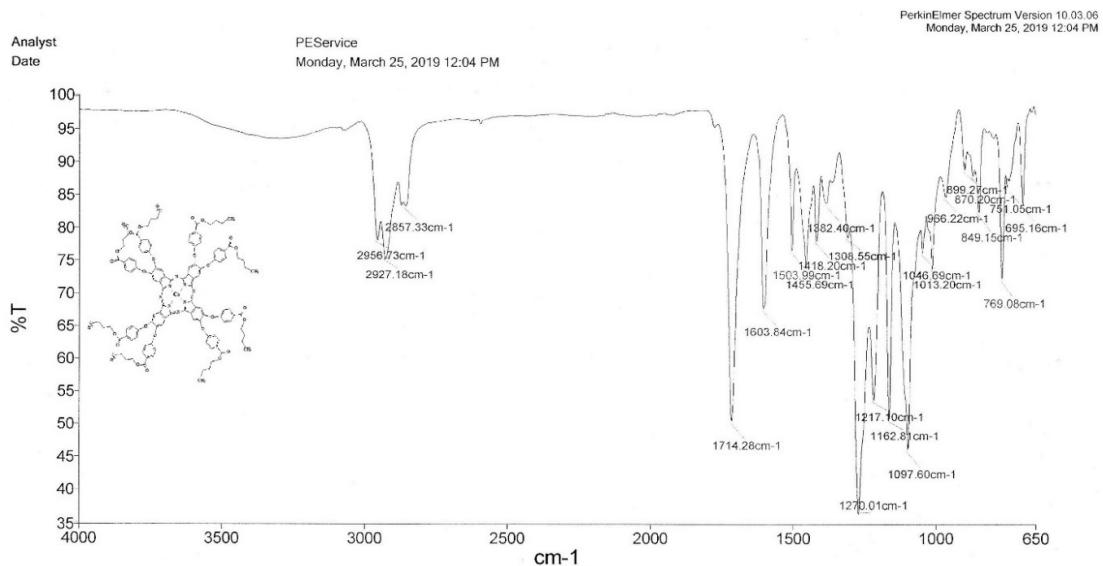


Fig. S5- Co(II) phthalocyanine (**2**) IR Spectrum

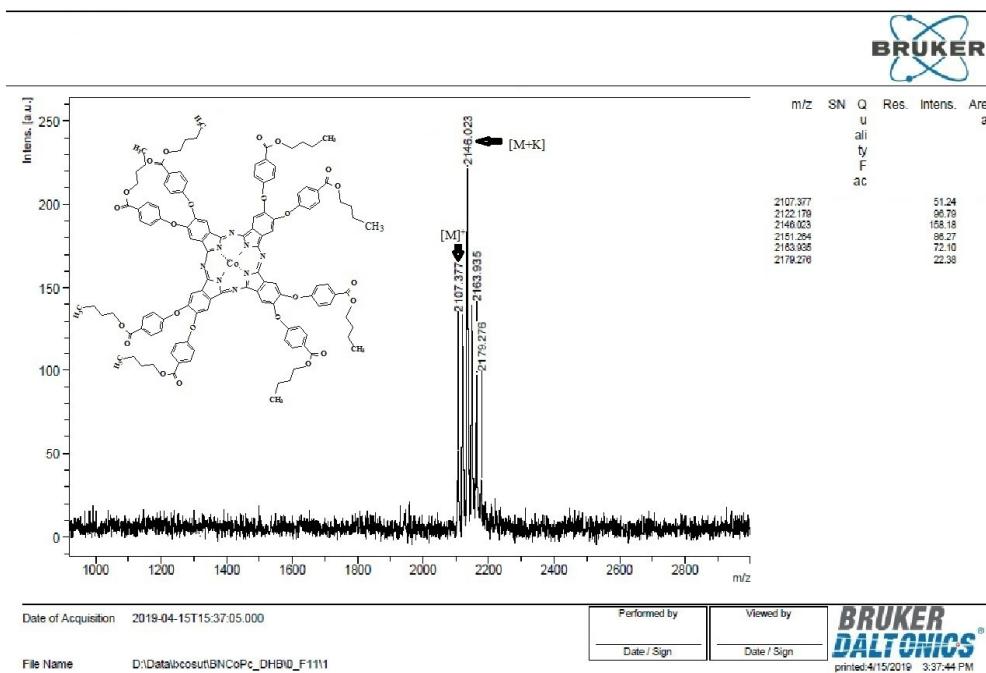


Fig. S6- Co(II) phthalocyanine (**2**) Mass Spectrum

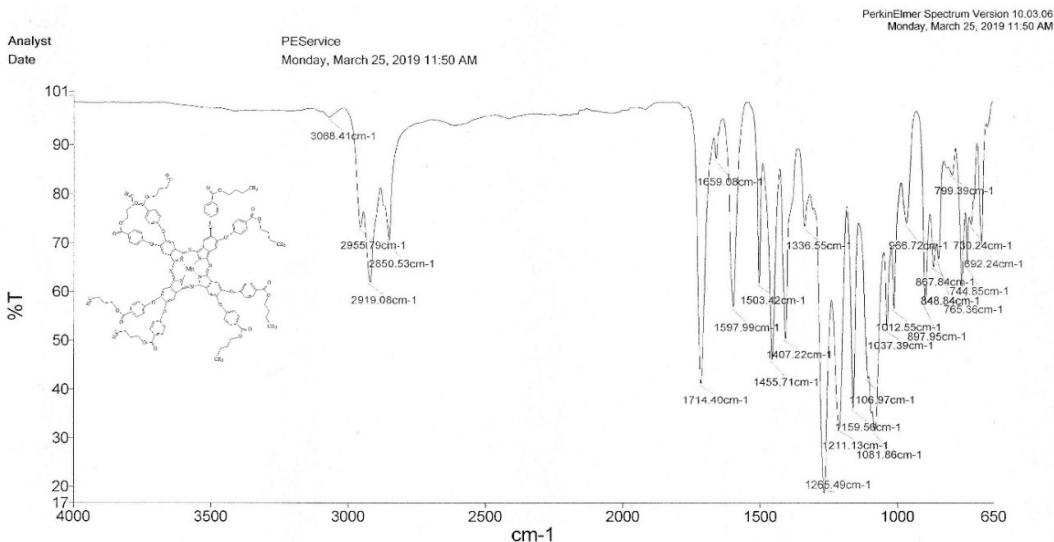


Fig. S7- Mn (II) phthalocyanine (**3**) IR Spectrum

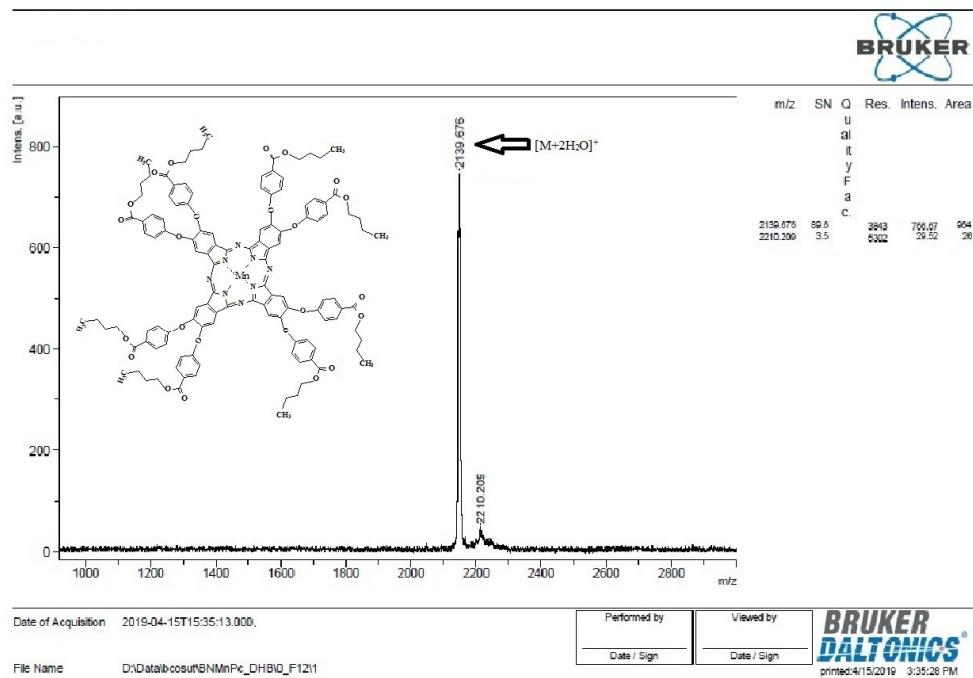


Fig. S8- Mn (II) phthalocyanine (**3**) Mass Spectrum