Synthesis, antimicrobial and computational studies of natural products derivatives of tricarbonyl (2-methoxycyclohexadienyl)iron tetrafluoroborate salt: An alternative route to natural products modification.

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Abstract: Biologically active natural products addition to $[(1\text{-}5\text{-}\eta\text{-}2\text{-}MeOC_6H_6)\ Fe(CO)_3][BF_4]$ has resulted in its 1,3-diene substituted derivatives. The subsequent removal of the tricarbonyliron moiety of these derivatives through demetallation with trimthylamine-N-oxide (Me_3NO), gave new organic compounds with enhanced antimicrobial properties as supported by quantum descriptors and QSAR measurements.

Keywords: Natural products, Tricarbonyl(2-methoxycyclohexadienyl)iron, Trimethylamine-N-oxde, Antimicrobial, computational studies.