Highly oxidized iron complexes of *N*-methyltetra-*p*-tolylporphyrin.

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Streszczenie

Two different, highly oxidized iron complexes of TV-methyltetra-p-tolylporphyrin (/V-MeTTPH) have been detected 1H by and ^{2}H NMR spectroscopy after oxidation with m-chloroperoxybenzoic acid. In CH_2Cl_2/CH_3OH (4:1, v/v) in thepresence of sodium methoxide (Ar-MeTTP)Fe^{II}Cl is converted to (¿V-MeTTP)Fen(OCH$_3$) and then to (CH$_3$0)(/V-MeTTP)Ferv=0upon addition of the peroxyacid. The latter is observable over the temperature range -90 to 0 °C, has a magnetic susceptibility
of 2.9 μ (S = 1), and is reduced by phenyldimethylphosphine to (7V-MeTTP)Fen(OCH$_3$). In the absence of sodium methoxide, (Ar-MeTTP)Fe^{II}Cl is oxidized by the peroxyacid to form a very unstable species observable from -90 to -75 °C whose 1H NMR spectrum shows large hyperfine shifts for the meso aryl substituents that are consistent with the presence of a tr-N-methylporphyrin radical in the product.

Adres publiczny

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https://www.acs.org/content/acs/en.html