

Supporting Information

Factors Affecting the Catalytic Epoxidation of Olefins by Iron Porphyrin Complexes and H₂O₂ in Protic Solvents

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TABLE S1. Effect of Alcohol Concentrations on Product Yields and the Fe^{III/II} Reduction Potentials of Fe(TPFPP)Cl^a

A. Effect of CH₃OH concentrations

Vol % of CH ₃ OH ^b	Product yield (%) ^c	<i>E</i> ^o vs ferrocene, V ^d
0	2	-0.54
1	8	-0.49
3	36	-0.39
5	57	-0.36
10	63	-0.34
20	66	-0.32
40	69	-0.32
75	71	-0.34

B. Effect of (CH₃)₂CHOH concentrations

Vol % of (CH ₃) ₂ CHOH ^b	Product yield (%) ^c	<i>E</i> ^o vs ferrocene, V ^d
0	2	-0.54
1	3	-0.53
3	12	-0.50
5	26	-0.45
10	37	-0.41
20	47	-0.38
40	55	-0.37
55	60	-0.36
75	65	-0.35

^a See Experimental Section for detailed reaction conditions. ^b Volume percents of alcohols in a solvent mixture of alcohol/CH₂Cl₂. ^c Based on the amounts of H₂O₂ added. ^d In volts versus Fc/Fc⁺ (ferrocene/ferrocinium) couple. Experimental details for electrochemical measurements have been described previously.^{3a}

FIGURE S1. Structures of iron(III) porphyrin complexes used in this study.

