Table S1. Control Reactions of the Epoxidations of *cis*-Stilbene and *trans*-Stilbene by $Fe(TPP)(CF_3SO_3)$ and $PhIO^{a.b}$

substrate	products	product yields (%) ^c
cis-stilbene	cis-stilbene oxide	39 ± 4
	trans-stilbene oxide	4 ± 2
	benzaldehyde	3 ± 1
trans-stilbene	cis-stilbene oxide	0
	trans-stilbene oxide	53 ± 4
	benzaldehyde	3 ± 1

^a Reaction conditions were the same as described in the part of Catalytic Competitive Epoxidations in Experimental Section except that *cis*-stilbene and *trans*-stilbene were used individually. All reactions were run at least in triplicate, and the data reported represent the average of these reactions.

^b In the absence of the iron porphyrin catalyst, only trace amounts of oxide products were yielded.

^c Based on the amounts of PhIO added.

Figure S1. UV-vis spectra of the reaction solutions of Fe(TPFPP)Cl and Fe(TPFPP)(CF_3SO_3) taken before and after the addition of m-CPBA: (A) Fe(TPFPP)Cl, (B) Fe(TPFPP)Cl + m-CPBA, (C) Fe(TPFPP)(CF_3SO_3), (D) Fe(TPFPP)(CF_3SO_3) + m-CPBA. Reaction conditions: m-CPBA (7.5 x 10^{-3} mmol, diluted in 20 μ L of CH_3CN) was added to a stirred solution containing an iron porphyrin complex (1.5 x 10^{-3} mmol) and equal amounts of cis- and trans-stilbenes (0.2 mmol each) in a solvent mixture (0.5 mL) of CH_3CN and CH_2Cl_2 (1:1) at room temperature. UV-vis spectra of the reaction solutions (1.5 mM) were taken in 0.1-mm UV cell.

