Supplementary Material

Table 1. Epoxidation of cyclooctene by *n*-Bu_4NIO_4 in the presence of [Mn(TPP)(OAc)] catalysts with or without H_2O.[a,b]

Mn(TPP)(OAc)				
Nitrogen Donor	**Co Catalyst/Catalyst Molar Ratio**	**Maximum Epoxidation Yields (%) Without H_2O, 5h**	**Co Catalyst/Catalyst Molar Ratio**	**Maximum Epoxidation Yields (%) With H_2O (0.5ml), 3h**
ImH	10	73.3	40	98.0
4(5)-MeImH	10	58.0	40	64.8
2-MeImH	10	23.2	40	59.2
2-EtImH	10	19.6	40	51.5
1-MeImH	80	10.1	10	10.1

[a] The molar ratio for [Mn(por)]/Nitrogen donors/cyclooctene/periodate was 1:x:83:167 with a concentration of [Mn(por)] of 0.003 M at 23±2 °C.

[b] The epoxidation yields (%) were measured relative to initial cyclooctene. All reactions were run at least in triplicate, and the data represent an average of these reactions with ± 0.8 % (2s).

Table 2. Epoxidation of cyclooctene by *n*-Bu_4NIO_4 in the presence of [Mn(TPFPP)(OAc)] catalysts with or without H_2O.[a,b]

Mn(TPFPP)(OAc)				
Nitrogen Donor	**Co Catalyst/Catalyst Molar Ratio**	**Maximum Epoxidation Yields (%) Without H_2O, 24h**	**Co Catalyst/Catalyst Molar Ratio**	**Maximum Epoxidation Yields (%) With H_2O (0.5ml), 8h**
ImH	5	11.5	10	50.4
4(5)-MeImH	5	13.6	10	67.8
2-MeImH	5	6.5	10	64.5
2-EtImH	5	5.3	10	24.6
1-MeImH	10	5.7	1	2.9

[a] The molar ratio for [Mn(por)]/Nitrogen donors/cyclooctene/periodate was 1:x:83:167 with a concentration of [Mn(por)] of 0.003 M at 23±2 °C.

[b] The epoxidation yields (%) were measured relative to initial cyclooctene. All reactions were run at least in triplicate, and the data represent an average of these reactions with ± 0.8 % (2s).