

# Kinetic Studies of Oxygen Atom Transfer Reactions from *trans*-Dioxoruthenium(VI) Porphyrins to Sulfides



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We report a new photochemical preparation of *trans*-dioxoruthenium(VI) porphyrin complexes in six porphyrin systems. We have also conducted the kinetic studies of sulfoxidation reactions with these well characterized metal-oxo species to understand the mechanistic detail. The kinetic results obtained in this study indicate a concerted oxygen atom transfer and/or electron transfer followed by oxygen transfer mechanism from oxidant to sulfide.

