Earliest available Table of Contents:
Automatically, free of charge by e-mail through
www.interscience.wiley.com/alerts

COVER PICTURE

The cover picture shows an allegory of bioinorganic chemistry and biomimetic studies. Here, the metalloprotein (human Mn-SOD, PDB-code 1MSD) is posing for the painter. As a bioinorganic chemist, he is designing new molecules that would reproduce this protein activity; he is testing the activity of these molecules and deciphering mechanisms. Here, we show the structure of a small Mn^{II} complex that has been studied for its SOD-like activity by pulsed radiolysis. In the painting, the UV/Vis trace of a multipulse experiment at 300 nm is shown, with successive spikes and plateaus. An overall increase in the absorbance of the successive plateaus is observed. The asterisks indicate irradiations. Simulations of the individual growth of the spikes, of the individual decrease down to the plateau and of the overall increase of the absorbance for the successive plateaus leads to the proposition of a mechanism. This is the triangular cycle shown in the painting, involving an $\{MnOO\}^6$ adduct between Mn^{II} and superoxide. This label, $\{MnOO\}^6$, is proposed by analogy with the nomenclature used for iron−nitroxide adducts. Each event indicated in the cycle has been proven. Moreover, this study shows unambiguously that the Mn^{II} compound displays a catalytic activity for superoxide dismutation. Details are presented in the article by J.-P. Renault, C. Policar et al. on p. 2789ff. In the original picture by Magritte, the inset in the lower right-hand corner, is entitled "La clairvoyance" (clear-sightedness) and was painted in 1936.

SHORT COMMUNICATIONS

Contents