Deep into the CuZ cluster how is it all done?

ABSTRACT
As a key process for N2O elimination from the biosphere, N2O reductases catalyze the two-electron reduction of N2O to N2. These 2x65 kDa copper enzymes are thought to contain a CuA electron entry site, similar to that of cytochrome c oxidase, and a CuZ catalytic center. Farrar et al. have concluded that the properties attributed to CuZ chromophore are due to a thiolate bridged dinuclear copper center. This paper investigates the spectroscopic properties of the Cu\textsubscript{Z} cluster and puts forth a mechanistic model for Cu\textsubscript{Z} to overcome the high activation energy barrier for the N-O bond cleavage following the release of N\textsubscript{2} and water.