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The Role of Molecular Crowding in Long-Range Metalloprotein Electron Transfer: Dissection into Site- and Scaffold-Specific Contributions

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Abstract

Here we report the effect of molecular crowding on long-range protein electron transfer (ET) and disentangle the specific responses of the redox site and the protein milieu. To this end, we studied two different one-electron redox proteins that share the cupredoxin fold but differ in the metal centre, T1 mononuclear blue copper and binuclear Cu_A, and generated chimeras with hybrid properties by incorporating different T1 centres within