

Supporting Table. Summary of EXAFS Fitting Results for copper RBP. The best fit is shown in bold.

Sample	Fit #	Ligand Environment ^a				Ligand Environment ^a				F, ^f
		Atom ^b	R(Å) ^c	C.N. ^d	σ^2 ^e	Atom ^b	R(Å) ^c	C.N. ^d	σ^2 ^e	
RBP	1 ^g	O/N	1.96	3.0	4.17					0.39
	2 ^g	O/N	1.96	3.0	4.17	C/C	2.97/ 3.92	0.5/ 1.5	1.79/ 3.44	0.35
	3 ^h	N _{Im}	1.98	1.0	4.56	O	1.96	2.0	3.09	0.37

^a Independent metal-ligand scattering environment. ^b Scattering atoms: O (Oxygen), N (Nitrogen), C (Carbon). ^c Metal-ligand bond length in Å. ^d Metal-ligand coordination number. ^e Debye-Waller factor in Å² x 10³. ^f Number of degrees of freedom weighted mean square deviation between data and fit. ^g Fit using only single scattering Feff 7 theoretical models. ^h fit using both single scattering Feff 7 model with an additional multiple scattering Fe-N(Imidazole) model, generated based on crystallographic coordinates listed in [6] and labeled N_{Im} in table atom designation. Details of fitting are described in the Experimental Section.