

Supplementary information

Spectroscopic and structural analysis of Cu²⁺-induced fluorescence quenching of ZsYellow

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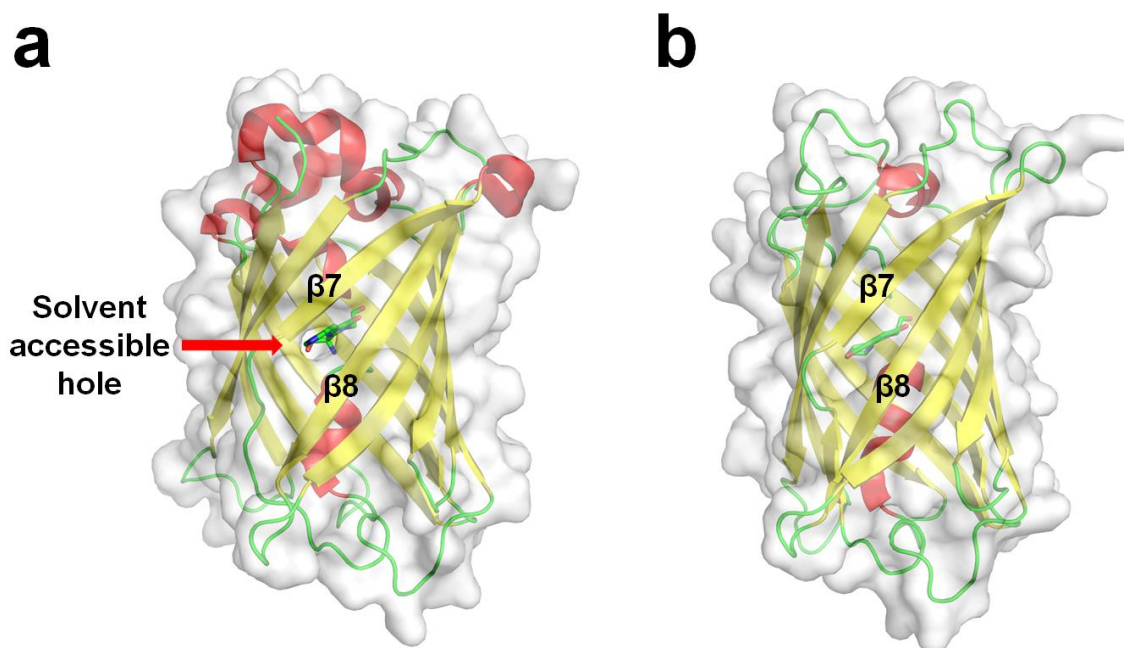


Figure S1. Comparison of surface structure of (a) BFPms1 and (b) ZsYellow. BFPms1 has the solvent accessible hole between $\beta 7$ - and $\beta 8$ -strands, whereas ZsYellow has no solvent accessible hole at sample position.

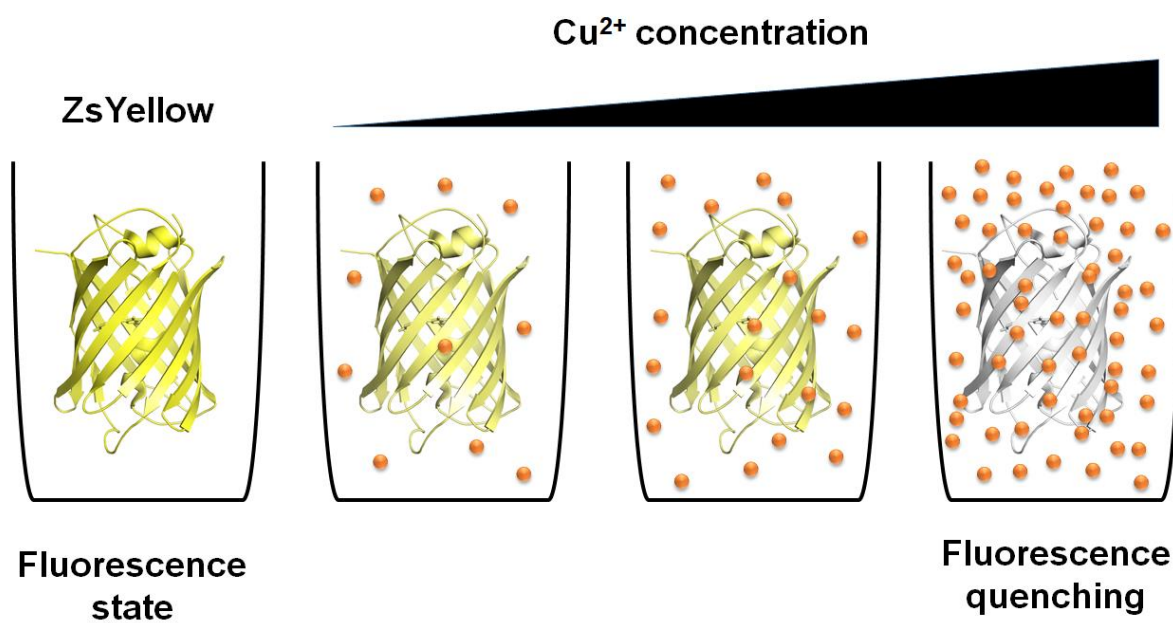


Figure S2. Propose mechanism of Cu²⁺ fluorescence quenching of ZsYellow. Apo state ZsYellow has the fluorescence state. When the Cu²⁺ concentration increasing, Cu²⁺ ions closed to chromophore of ZsYellow and shows the fluorescence quenching state like Cu²⁺ binding.