Supplementary material

Effect of trace metal ions on the conformational stability of the visual photoreceptor rhodopsin

Feifei Wang, Pol Fernandez-Gonzalez, Eva Ramon, Margarita Morillo and Pere Garriga*

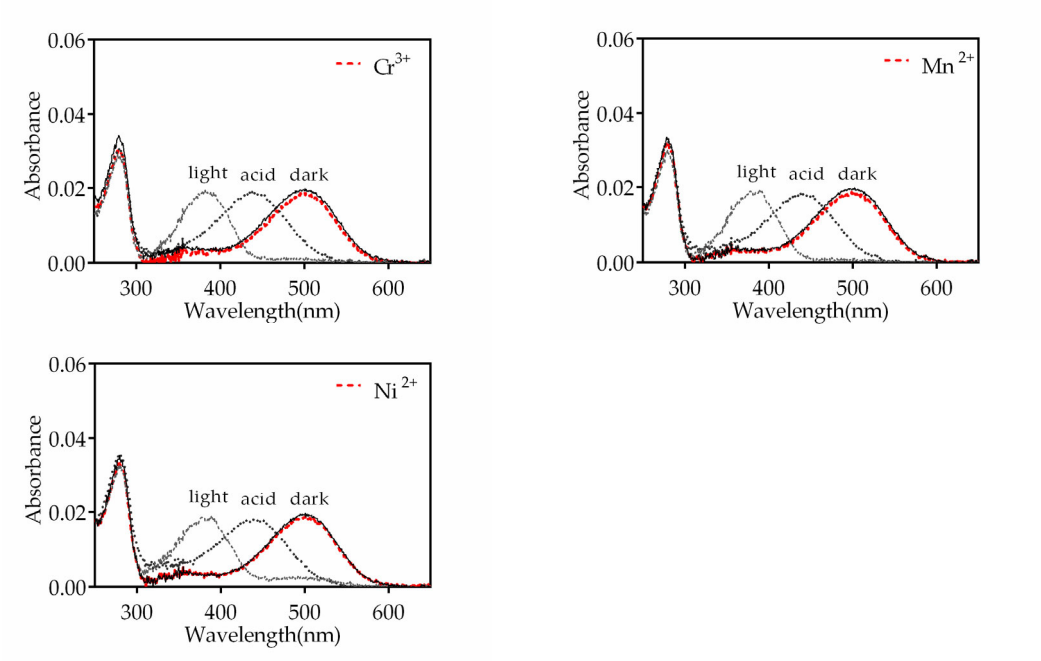

Figure S1. UV-vis absorption spectra of Rho were obtained following pre-treatment with Cr^{3+}, Mn^{2+}, and Ni^{2+}, at a final concentration is 50 μM. Spectra of samples were recorded in the dark state (dark, solid line), after metal addition (dark, dashed red line), upon photobleaching for 30 s (light, dashed line) and after acidification with 2N H_2SO_4 (acid, dotted line). All the above experiments were conducted at 20ºC.

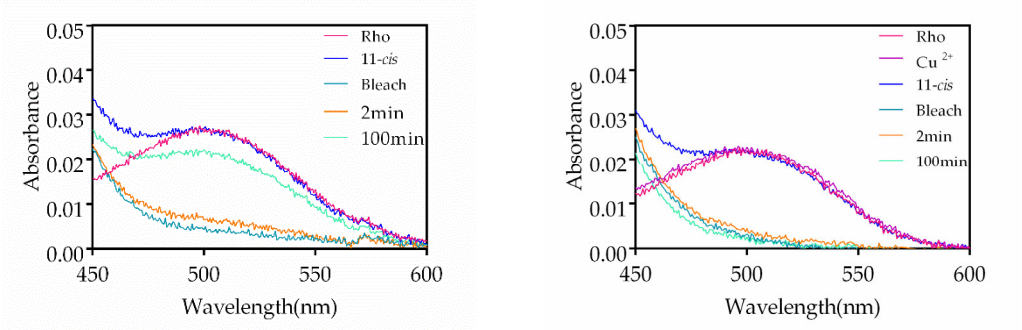

Figure S2. UV-vis absorption spectra of the chromophore regeneration process without (left panel) and with Cu^{2+} (right panel). The chromophore regeneration assay was carried out at 20ºC in the dark. The details are described in the Methods section. **11-*cis*,** 11-*cis*-retinal added to the sample. **Bleach,** photobleached sample. **2min and 100min,** spectra of the regenerated sample 2 min and 100 min after illumination, respectively. Note the absence of chromophore regeneration for the Cu^{2+}-containing sample (right panel)