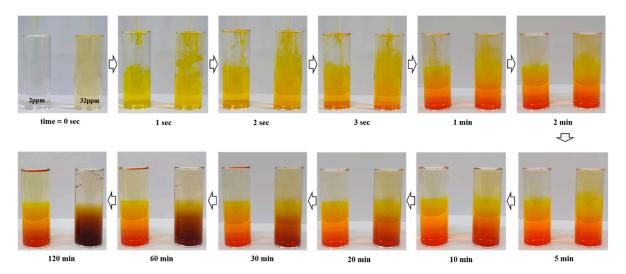


**Figure S1.** Time sequential images of color change in the presence of  $Fe^{2+}$ . The concentration of hydrazine,  $H_2O_2$  and  $Fe^{2+}$  are 0.025 M, 0.2 M, 2ppm and 32 ppm, respectively.



**Figure 2.** Time sequential images of color change in the presence of  $Fe^{3+}$ . The concentration of hydrazine,  $H_2O_2$  and  $Fe^{3+}$  are 0.025 M, 0.2 M, 2ppm and 32 ppm, respectively.