(1) $\text{miniSOG} + O_2 + h\nu \rightarrow {}^1O_2$

(2) ${}^1O_2 + \text{R-S}^- \rightarrow \text{R-SOO}^-$

(3) $\text{R-SOO}^- + H_2O \rightarrow \text{R-SO}^+ + 2\ OH^-$

(4) $\text{R-SO}^+ + \text{Cys-S}^- + H_2O \rightarrow \text{R-S-S-Cys} + 2\ OH^-$

Figure 1