

Table I. Pseudo first order reaction rates of L-histidine and luciferase in Sensitox II and SSS photosensitization reactions. The error associated with rate determinations was approximately $\pm 15\%$

Photosensitization reaction	L-Histidine	Luciferase	
	Rate of Oxidation	Rate of Inactivation	[†] Relative rate of Reaction with ¹ O ₂
	(s ⁻¹)	(s ⁻¹)	(M ⁻¹ s ⁻¹)
Sensitox II	2.8 x 10 ⁻³	1.2 x 10 ⁻²	1.2 x 10 ⁸
SSS	3.4 x 10 ⁻⁵	3.3 x 10 ⁻⁴ ϕ 2.3 x 10 ⁻³	2.7 x 10 ⁸ ϕ 1.9 x 10 ⁹

[†]Relative to reaction rate constant for L-histidine with singlet oxygen.

ϕ Photosensitization reaction buffer contained no MgSO₄.