

Table 1. Collected amino acid rate constants for chemical reaction with and physical quenching of singlet oxygen

Amino acid	Photophysically generated $^1\text{O}_2$		$^1\text{O}_2$ generated by * photosensitization	
	k_A	$k_A + k_Q$	k_A	$k_A + k_Q$
His	10	10	0.7	5
Trp	3	5.1	0.4	4
Met	1.6	1.7	0.5	3
Tyr	0.8	—	—	—
Ala	0.2	0.13	—	—

Photophysically generated singlet oxygen: all rate constants in units of $M^{-1} s^{-1} \times 10^{-7} \pm 30\%$ at pD 8.4 and 20°.

* Data of Nilsson *et al.* (1972) methylene blue photosensitization in $\text{H}_2\text{O}/\text{CH}_3\text{OH}$ 1:1, pH unstated.