



Figure 2. Photokinetic studies; Dichloromethane solutions with the LED light source.

(above) comparison of the rates of photodecomposition for the radicals **2** (parent system, blue), **8a** (monofluoro, red) and **8b** (difluoro, green). (below) Comparison of the rates of photodecomposition for the radicals **2** (parent system, blue), **7a** (mono-n-hexyloxy, black), **7b** (di-n-hexyloxy, red) and **7c** (tetra-n-hexyloxy, green)

Table 2. Photodecomposition kinetics. Solutions in dichloromethane.					
Radical	$\nu_{\text{H}}^{[\text{a}]}$	light source	$k_{\text{I}} / \text{sec}^{-1}$	relative rate	half life / sec (half life / days)
Parent, 2	0	ambient	$7.28 \pm 0.56 \times 10^{-4}$	4.4×10^{-2}	9.2×10^2
Parent, 2	0	LED	$1.65 \pm 0.06 \times 10^{-2}$	1.00	42
F ₁ , ^[b] 8a	0	LED	$1.45 \pm 0.01 \times 10^{-2}$	0.87	48
F ₂ , ^[c] 8b	0	LED	$1.27 \pm 0.02 \times 10^{-2}$	0.76	55
(HxO) ₁ , 7a	0.25	LED	$4.44 \pm 0.04 \times 10^{-5}$	2.7×10^{-3}	1.6×10^4 (0.19)
(HxO) ₂ , 7b	0.36	LED	$2.90 \pm 0.03 \times 10^{-6}$	1.8×10^{-4}	2.4×10^5 (2.8)
(HxO) ₄ , 7c	0.52	LED	$2.41 \pm 0.06 \times 10^{-6}$	1.5×10^{-4}	2.9×10^5 (3.4)

^[a] ν_{H} , Fraction of hydrogen atoms; a measure of the density of CH vibrational states.

^[b] Contained ca. 20% **2**.

^[c] Contained ca. 5% **8a**.