

**Landolt-Börnstein**  
**Group II: Molecules and Radicals**

**Volume 18**  
**Radical Reaction Rates in Liquids**

**Subvolume E2**  
**Biradicals, Radicals in Excited States, Carbenes and Related Species**

	Introductory material	
	General introduction (H. FISCHER)	
12	Biradicals (J.C. NETTO-FERREIRA, J.C. SCAIANO)	1
12.0	General introduction	1
12.1	Unimolecular biradical processes	4
12.2	Biradical self reactions	53
12.3	Biradical-molecule reactions	55
	References for 12	80
13	Reactions of excited free radicals in solution (B.R. ARNOLD, J.C. SCAIANO)	83
13.0	Introduction	83
13.1	Intramolecular processes	84
13.2	Intermolecular reactions	115
	References for 13	139
14	Kinetics of carbene reactions in solution (G. BUCHER, J.C. SCAIANO, M.S. PLATZ)	141
14.0	Introduction	141
14.1	Kinetic of singlet carbenes	144
14.2	Kinetics of triplet carbenes	258
	References for 14	343
	Index of substances for Vols. 13 and 18	