

Supporting Information for

Conrotatory Photochemical Ring Opening of Alkylcyclobutenes in Solution.

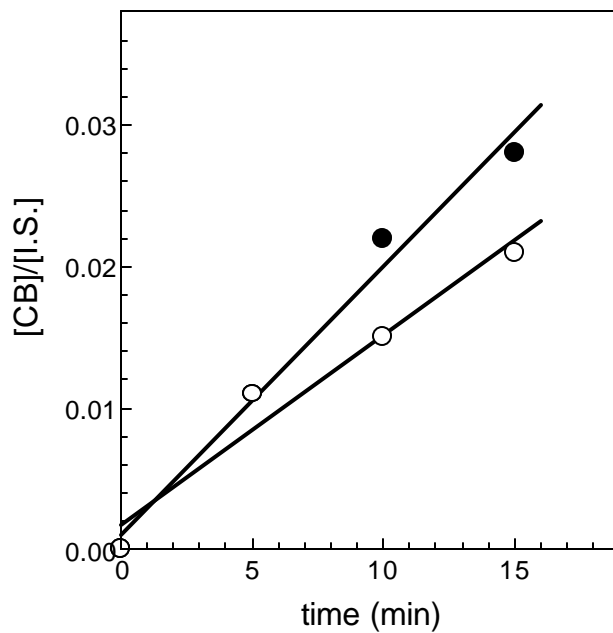
A Test of the Hot Ground State Mechanism

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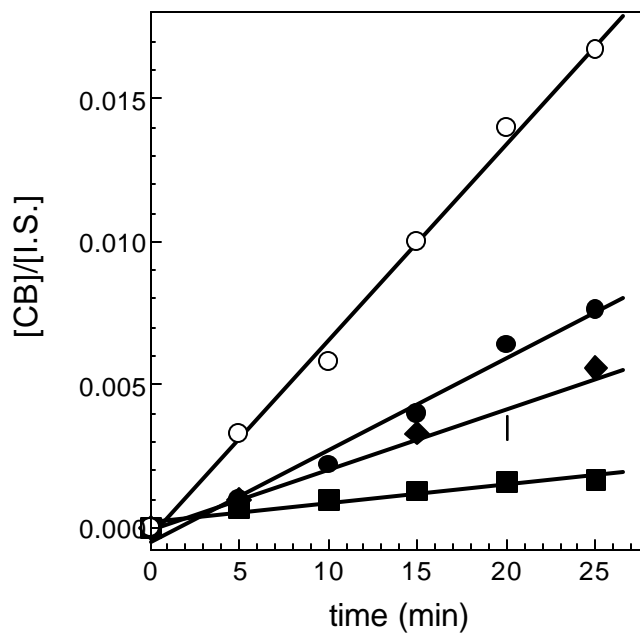
Representative concentration vs. time plots showing the formation of diene products, from merry-go-round irradiation (228 nm) of alkylcyclobutenes **1**, *cis*- and *trans*-**5**, **8**, and *cis*- and *trans*-**9** in deoxygenated hexane solution at 25 °C:

- (a) Formation of **2** (○) from **1** and *E,Z*-**6** (●) from *cis*-**5**.
- (b) Formation of **2** (○) from **1** and *E,Z*-**6** (●), *E,E*-**6** (■), and *Z,Z*-**6** (◆) from *trans*-**5**.
- (c) Formation of **2** (○) from **1** and **10** (●) from **8**.
- (d) Formation of **2** (○) from **1**, *Z*-**13** (●) from *cis*-**9**, and *E*-**13** (◆) from *trans*-**9**.

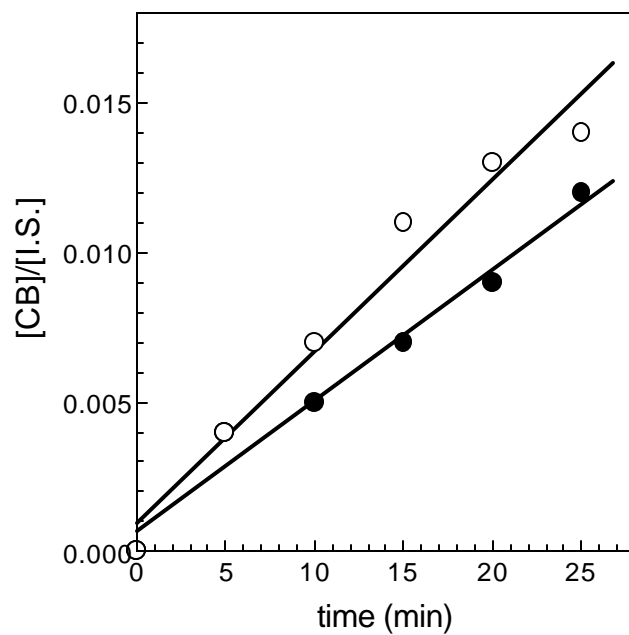
(a) Formation of **2** (○) from **1** and *E,Z*-**6** (●) from *cis*-**5**.



(b) Formation of **2** (○) from **1** and *E,Z*-**6** (●), *E,E*-**6** (■), and *Z,Z*-**6** (◆) from *trans*-**5**.



(c) Formation of **2** (○) from **1** and **10** (●) from **8**.



(d) Formation of **2** (○) from **1**, **Z-13** (●) from *cis*-**9**, and **E-13** (◆) from *trans*-**9**.

