

## Research Publications

### Review Chapters

1. B. S. Rabinovitch and D. W. Setser, "Unimolecular Decomposition and Some Kinetic Isotope Effects for Simple Alkanes and Alkyl Radicals," in *Ad. Photochem.* 3, 1–82 (1964).
2. D. H. Stedman and D. W. Setser, "Chemical Applications of Metastable Rare Gas Atoms," *Progress in Reaction Kinetics*, 6, part 4, 193–238 (1971).
3. D. W. Setser, "Unimolecular Reactions of Polyatomic Molecules, Radicals and Ions," MTP–Butterworths, *Review of Physical Chemistry*, Vol. 9, 1–44 (1972).
4. D. L. King and D. W. Setser, "Reactions of Electronically Excited-State Atoms" *Ann. Rev. Phys. Chem.*, 27, 407–442 (1976).
5. D. J. Bogan and D. W. Setser, "Energy Disposal in Reactions of Fluorine Atoms with Polyatomic Hydride Molecules Studied by Infrared Chemiluminescence," *ACS Symposium Series*, 66, 236–280 (1978).
6. J. H. Kolts and D. W. Setser "Electronically-Excited, Long-Lived, Atomic and Diatomic States in Flow Systems" *Reactive Intermediates in the Gas Phase: Generation and Monitoring*, 151–232; Ed. D. W. Setser, Academic Press: New York (1979).
7. D. W. Setser, editor of *Reactive Intermediates in the Gas Phase: Generation and Monitoring*, Academic Press: New York (1979).
8. B. E. Holmes and D. W. Setser, "Energy Disposal by Chemical Reactions," *Physical Chemistry of Fast Reactions*, 83–214; Ed. I. Smith, Volume II (1980).
9. B. S. Agrawalla and D. W. Setser "Hydrogen Atom Abstraction Reactions of F, Cl and O Atoms Studied by Infrared Chemiluminescence and Laser-Induced Fluorescence in a Flow Reactor" in *Gas-Phase Chemiluminescence and Chemionization*, 157–187; Ed. A. Fontijn, North Holland: New York (1985).
10. N. Sadeghi, I. Hikmet, I. Colomb and D. W. Setser, "State-to-State Dynamics for the Reactions of Metastable Cu Atoms with F<sub>2</sub>, Cl<sub>2</sub>, and Br<sub>2</sub>" in *Gas-Phase Metal Reactions*; Ed. Dr. A. Fontijn, Elsevier-North Holland: New York (1992).

### Journal Papers

1. D. W. Setser, H. C. Moser, and R. E. Hein, "Neutron- and  $\gamma$ -Irradiation of Phosphorus Trichloride," *J. Am. Chem. Soc.* 81, 4162–4165 (1959).
2. D. W. Setser, B. S. Rabinovitch, and E. G. Spittler, "Primary Processes in the Mercury Photosensitized Reactions of Cyclopropanes," *J. Chem. Phys.* 35, 1840–1844 (1961).
3. D. W. Setser and B. S. Rabinovitch, "Non-stereospecificity in the Simmons-Smith Preparation of Cyclopropanes," *J. Org. Chem.* 26, 2985–2986 (1961).
4. D. W. Setser and B. S. Rabinovitch, "Methylene Radicals and the Thermal Decomposition of Diazomethane," *J. Am. Chem. Soc.* 83, 750–751 (1961).

5. B. S. Rabinovitch, D. W. Setser, and F. W. Schneider, "Inverse Intermolecular Kinetic Isotope Effects in Unimolecular Reactions," *Can. J. Chem.* 39, 2609–2611 (1961).
6. D. W. Setser and B. S. Rabinovitch, "Unimolecular Reactions of Chemically Activated Cyclopropane and Dimethylcyclopropane Molecules," *Can. J. Chem.* 40, 1425–1451 (1962).
7. J. W. Simons, D. W. Setser, and B. S. Rabinovitch, "Large Secondary Intermolecular Kinetic Isotope Effects in Non-Equilibrium Systems. Energization by Chemical Activation," *J. Am. Chem. Soc.* 84, 1758–1759 (1962).
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21. J. C. Hassler, D. W. Setser, and R. L. Johnson, "Chemical Activation and Nonequilibrium Unimolecular Reactions of C<sub>2</sub>H<sub>5</sub>Cl and 1,2-C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub> Molecules," *J. Chem. Phys.* **45**, 3231–3236 (1966).
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