

Solid State Photochemistry (Work initiated at Indian Institute of Science, Bangalore)

1. Photodimerization of coumarins in the solid state.
N. Ramasubbu, T. N. Guru Row, K. Venkatesan, V. Ramamurthy and C. N. R. Rao, *J. Chem. Soc., Chem. Comm.*, 178, **1982**.
2. Topochemical photodimerization of 7-acetoxycoumarin: The acetoxy group as a steering agent.
N. Ramasubbu, K. Gnanaguru, K. Venkatesan and V. Ramamurthy, *Can. J. Chem.*, 60, 2159, **1982**.
3. Photodimerization of olefins in the solid state.
H. R. Swamy, T. N. Guru Row, V. Ramamurthy, K. Venkatesan and C. N. R. Rao, *Current Science*, 51, 381, **1982**.
4. Reversible photodimerization of some butadiene derivatives in the solid state.
H. R. Swamy, V. Ramamurthy and C. N. R. Rao, *Ind. J. Chem.*, 21B, 79, **1982**.
5. Reversible photodimerization of phenylbutadienes in the solid state.
T. N. Guru Row, H. R. Swamy, K. N. Acharya, V. Ramamurthy, K. Venkatesan and C. N. R. Rao, *Tetrahedron Letters*, 24, 3263, **1983**.
6. The Norrish type II reaction in the solid state: Involvement of a boat like reactant conformation.
S. Ariel, V. Ramamurthy, J. R. Scheffer and J. Trotter, *J. Am. Chem. Soc.*, 105, 6959, **1983**.
7. Gas-solid reactions: Photochemical oxidation of thioketones in the crystalline state.
P. Arjunan, V. Ramamurthy and K. Venkatesan, *J. Org. Chem.*, 49, 1765, **1984**.
8. Gas-crystal photoreactions: Crystal structures of 4,4'-dimethoxythiobenzo-phenone and 4,4'-N,N-dimethylthiobenzophenone.
P. Arjunan, V. Ramamurthy and K. Venkatesan, *Acta. Cryst. Section C.*, 40, 552, **1984**.
9. Crystal structures of 4-phenylthiobenzophenone and 1-thiobenzoylnaphthalene.
P. Arjunan, V. Ramamurthy and K. Venkatesan, *Acta. Cryst. Section C.*, 40, 556, **1984**.
10. Topochemical dimerization of non-parallel double bonds: 7-methoxy coumarin.
M. M. Bhadbhade, G. S. Murthy, K. Venkatesan and V. Ramamurthy, *Chem. Phys. Lett.*, 109, 259, **1984**.
11. A study in crystal engineering: Solid state photodimerization of chloro and methyl coumarins.
K. Gnanaguru, G. S. Murthy, K. Venkatesan and V. Ramamurthy, *Chem. Phys. Lett.*, 109, 255, **1984**.
12. Structure and photoreactivity of inclusion complexes of thioketones and deoxycholic acid.
K. Padmanabhan, K. Venkatesan and V. Ramamurthy, *Can J. Chem.*, 62, 2025, **1984**.

13. Topochemical solid-state photodimerization of non-ideally oriented monomers: 7-chloro and 7-methoxy coumarins.
N. Ramasubbu, K. Gnanaguru, K. Venkatesan and V. Ramamurthy, *J. Photochem.*, 27, 355, **1984**.
14. A study on the photochemical dimerization of coumarins in the solid state
N. Ramasubbu, K. Gnanaguru, M. M. Bhadbhade, K. Venkatesan and V. Ramamurthy, *J. Org. Chem.*, 50, 2337, **1985**.
15. Photochemical reactions in oriented systems.
V. Ramamurthy in *Organic Phtotransformations in Non-homogeneous Media*, Ed., M. A. Fox, American Chemical Society, Washington, D.C., 1985, p. 267.
16. Photochemically induced organic reactions in the solid state,
P. Arjunan, K. Gnanaguru, V. Ramamurthy and K. Venkatesan, in *Natural Products Chemistry*, Ed., R. I. Zalewski and J. J. Skolik, Elsevier, Amsterdam, 1985, p. 347.
17. Solid state photochemistry of nitro compounds: Structure reactivity correlation.
K. Padmanabhan, D. Dopp, K. Venkatesan and V. Ramamurthy, *J. Chem. Soc. Perkin Trans. II*, 897, **1986**.
18. Structure-reactivity correlations of aromatic nitro compounds: Crystal and molecular structures of 1-tert-butyl-3,5-dimethyl-2,4,6-trinitrobenzene and 1-tert-butyl-3, 4, 5-trimethyl-2,6-dinitrobenzene.
K. Padmanabhan, V. Ramamurthy, K. Venkatesan, M. N. Ponnuswamy and J. Trotter, *Acta. Cryst. Section C.*, 42, 610, **1986**.
19. Photochemical Reactions of Organic Crystals.
V. Ramamurthy and K. Venkatesan, *Chem. Rev.*, 87, 433, **1987**.
20. Structure of α -benzylidene-*dl*-pipertone: An exception to the topochemical behavior.
D. Kanagapusam, V. Ramamurthy and K. Venkatesan, *Acta. Cryst. Section C.*, 43, 1128, **1987**.
21. Structure-reactivity correlation in inclusion complexes: Deoxycholic acid-thiocamphenilone.
K. Padmanabhan, V. Ramamurthy and K. Venkatesan, *J. Inclusion. Phenomena.*, 5, 315, **1987**.
22. Consequence of lattice relaxability in solid state photodimerization.
G. S. Murthy, P. Arjunan, K. Venkatesan and V. Ramamurthy, *Tetrahedron*, 43, 1225, **1987**.
23. Structure of 6-acetoxy coumarin: Topochemical photodimerization and analysis of acetoxy-acetoxy interactions in the solid state.
G. S. Murthy, V. Ramamurthy and K. Venkatesan, *Acta. Cryst. Section C.*, 44, 307, **1988**.
24. Crystal and molecular structures of 1,2-biphenyl 2-methoxy ethanone and 1,2-biphenyl 2-isopropoxy ethanone.

D. Kanagapusam, V. Ramamurthy and K. Venkatesan, *Acta Cryst. Section C.*, **44**, 894, **1988**.

25. Bimolecular Photoreactions in Crystals.
K. Venkatesan and V. Ramamurthy in *Photochemistry in Organized and Confined Media*, Ed., V. Ramamurthy, VCH Publishers, New York, 1991, p. 133.
26. Asymmetric Induction During Yang Cyclization of α -Oxoamides: Power of a Covalently Linked Chiral Auxiliary is Enhanced in the Crystalline State.
N. Arunkumar, J. T. Mague and V. Ramamurthy, *J. Am. Chem. Soc.*, **2005**, *127*, 3568-3576.
27. Large molecular motions are tolerated in crystals of diamine double salt of *trans*-chlorocinnamic acids with *trans*-1,2-diaminocyclohexane
A. Natarajan, J. T. Mague, K. Venkatesan and V. Ramamurthy, *Organic Letters*, **2005**, *7*, 1895-1898.
28. Solvent-Free Photosynthesis of Cyclobutanes: Photodimerization of Crystalline Olefins
A. Natarajan and V. Ramamurthy, in 'The Chemistry of Cyclobutanes', Z. Rappoport and J. F. Liebman (Eds.), John Wiley: Chichester, 2005, pp. 807-872.
29. The Viability of a Covalent Chiral Auxiliary Method to Induce Asymmetric Induction in Solid State Photoreactions Explored
A. Natarajan, J. T. Mague and V. Ramamurthy, *Crystal Growth*, **2005**, *5*, 2348.
30. Volume-demanding *cis-trans* isomerization of 1,2-diaryl olefins in the solid-state.
A. Natarajan, J. T. Mague, K. Venkatesan, T. Arai and V. Ramamurthy, *J. Org. Chem.*, **2006**, *71*, 1055-1059.
31. Thiourea as a Template for Photodimerization of Azastilbenes
B. R. Bhogala, B. Captain, A. Parthasarathy and V. Ramamurthy, *J. Am. Chem. Soc.*, **2010**, *132*, 13434-13442.
32. Photodimerization of HCl salts of azastilbenes in the solid
B. Mondal, B. Captain and V. Ramamurthy, *Photochem. Photobiol. Sci.*, **2011**, *10*, 891-894.
33. Role of Hydrogen Bonds in Molecular Packing of Photoreactive Crystals: Templating Photodimerization of Protonated Stilbazoles in Crystalline State with a Combination of Water Molecules and Chloride Ions
B. Mondal, T. Zhang, R. Prabhakar, B. Captain and V. Ramamurthy, *Photochem. Photobiol. Sci.*, **2014**, *13*, 1509-1520.
34. Comparison of Templating Abilities of Urea and Thioruea During Photodimerization of Bipyridylethylene and Stilbazole Crystals
B. R. Bhogala, B. Captain and V. Ramamurthy, *Photochem. Photobiol.*, **2015**, *91*, 696-704. (*Special Issue Dedicated to the Memory of Michael Kasha*)

35. Volume demanding geometric isomerization of *cis*-4-stilbazole.HCl salts in the crystalline state:
Probing the role of a metastable dimer
B. Mondal, B. Captain and V. Ramamurthy, *J. Photochem. Photobiol. A: Chemistry*, **2016**, *331*, 224-232. (Special Issue Dedicated to Yoshihisa Inoue)
36. Solid-state photochemistry of *cis*-cinnamic acids: A competition between [2+2] addition and *cis-trans* isomerization
G. B. Veerakanellore, B. Captain and V. Ramamurthy, *CrystEngComm.*, **2016**, *18*, 4708-4712.