

## REFERENCES

- Arun K. Varshneya. (1994). Fundamentals of Inorganic Glassmaking. Boston : Academic Press.
- C. J. Brinker and G. W. Scherer (1990). Sol-Gel Science. New York: Academic Press.
- Clint Bickmore, Martin L. Hoppe and Richard M. Laine. (1992). Processable Oligomeric and Polymeric Precursors to Silicate Prepared Directly from SiO<sub>2</sub>, Ethylene Glycol and Base. Material Research Society Symposia Processing, 249, 81.
- Clint R. Bickmore and Richard M. laine. (1996). Synthesis of Oxynitride Powders via Fluidized-Bed Ammonolysis, Part I: Large, Porous, Silica Particles. Journal of the American Ceramic Society, 79(11), 2865.
- Corriu R. J. P., Guerin, C., Henner, B.J.L., Man, W. W., C. H. Chi. (1988). Pentacoordinated Silicon Anions : Reactivity Toward Strong Nucleophiles. Pure and Applied Chemical, 60, 99.
- Finestone A. B. (1960). Curing Glycidyl Polyethers, and Products Produced Thereby. U.S. 2,953,545.
- Frye C. L. (1970). Pentacoordinate Silicon Derivatives. IV. Alkylammonium Silicate Salts Derived from Aliphatic 1,2-diols. Journal of American Chemical Society, 92, 1250.
- Frye C. L. Vincent, G. A., FinZel, W. A. (1971). Pentacoordinate Silicon Compounds V. Novel Silatrane Chemistry. Journal of American Chemical Society, 93(25), 6805.
- Frye C. L., Vogel G. E., Hall J. A. (1961). triptych-Siloxazolidines : Pentacoordinate Bridgehead Silanes Resulting from Transannular

- Interaction of Nitrogen and Silicon. Journal of American Chemical Society, 83, 996.
- H. Henning Winter, Akihiro Izuka & Michael E. De Rosa (1994). Experimental Observation of the Molecular Weight Dependence of the Critical Exponents for the Rheology Near the Gel Point. Polymer Gels and Networks, 2, 239.
- Hencsei, P., Parkanyi, L. (1985). The Molecular Structure of Silatranes. Review Silicon, Germanium, Tin Lead Compound, 8(2), 191.
- Iler, R. K. (1979). The Chemistry of Silica. New York: John Wiley & Sons.
- Kirk-Othemer (1979). Encyclopedia of Chemical Technology. 3<sup>rd</sup> ed. New York : Wiley-Interscience. 20, 750-880.
- Laine, R. M., Mueller, B. L., and Hinklin, T., One Step Synthesis of Neutral Alkoxy Silanes and Alanes from SiO<sub>2</sub> and Al(OH)<sub>3</sub>, Contribution from the Departments of materials and Engineering, and Chemistry of Michigan, Ann Arbor, MI 48109-2136.
- Leno Mascia (1995). Reviews : Developments in Organic-inorganic Polymeric Hybrids : Ceramers Trends in Polymer Science, 3(2), 61.
- Piboonchaisit, P. (1996). Silatrane Complexes from SiO<sub>2</sub> and Triisopropanolamine. M. S. Thesis in Polymer Science, The Petroleum and Petrochemical College, Chulalongkorn University, Thailand.
- Richard M. Laine, Kay Youngdahl Blohowiak, Timothy R. Robinson, Martin L. Hoppe, Paola Nardi, Jeffrey Kampf and Jackie Uhm. (1991). Synthesis of Pentacoordinate Silicon Complexes from SiO<sub>2</sub>. Nature, 353, 642.
- Rosemheim A., Raibman B. and Schendel, G. Z., (1931). Complex Pyrocatecholates of Quadri Valent Elements. Inorganic Allgemeine Chemical, 160, 196.

- Roy, D. M. and Roy, R. (1954). An Experimental Study of The Formation and Properties of Synthetic Serpentines and Related Layer Silicate Minerals American Mineralogist, 39, 957.
- Saegusa, T. and Chujo, Y. (1992). Organic Polymer Hybrids with Silica gel Formed by Means of the Sol-Gel method. Advance Polymer Science, 100, 11.
- Shan-hui Hsu and Alexander M. Jamieson (1993). Viscoelastic Behavior at the Thermal Sol-Gel Transition of Gelatin. Polymer, 34(12), 2602.
- Turley J. W. and Boer F. P. (1968). Structural Studies of Pentacoordinate Silicon. I. Phenyl ( 2,2',2"-nitrilotriethoxy) silane. Journal of American Chemical Society, 90, 4026.



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