

Molecular phosphates and siloxanes

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There has been immense interest and enthusiasm recently among chemists to develop materials at low temperatures through molecular routes. Especially interesting are the studies carried out on molecular phosphonates¹ and siloxanes^{2,3} by Roesky, Tilley, Mason, Feher and others. This presentation focuses on the structural correlation between the molecular siloxanes/phosphonates and the material silicates/phosphates. It also deals with the generalisations of the synthetic efforts employed in the preparation of molecules which represent the building units in zeolites and molecular sieves. The similarities and the variations in these molecules which could lead to the formation of the materials and the presence of plausible reactive groups which make the compounds susceptible to various reaction conditions are discussed.

References

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2. Feher F J and Budzichowski T A 1995 *Polyhedron* **14** 3239
3. Murugavel R, Voigt A, Walawalkar M G and Roesky H W 1996 *Chem. Rev.* **96** 2205