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As we approach the new millennium, synthesis of fluoro-organic molecules has become one of the significant areas of organic chemistry. A large number of newly developed agrochemicals and pharmaceuticals comprise of fluorine-containing molecules. Besides, fluoro-organics have found importance as ferroelectric liquid crystals as well as non-linear optics materials. An indisputable fact about fluoro-organic chemistry is that it frequently provides challenges for theoretical organic chemists.

Application of organoboranes has become routine in many synthetic laboratories. Yet, it is BaFfling that very little of organoborane chemistry has been utilized to prepare fluoro-organics. We hope to turn things around with our systematic investigation. The potential of organoborane chemistry is being exploited to achieve convenient syntheses of fluoro-organics developing a FaBulous field that combines the strengths of these two rich areas. Along with this we are also actively pursuing the application of other organometallic reagents for fluoro-organic chemistry.

A methodical examination of various condensation reactions of fluoral and fluoro-ketones is currently being undertaken in our laboratories. This will involve the application of our asymmetric synthetic methods to achieve the preparation of novel chiral fluoro-organic molecules, including fluorinated amino acids.