



Salts of Polyfluorinated Aminoborate Anions

Useful anions must not only be weakly coordinating, they must also be stable with respect to oxidation and/or fragmentation in the presence of highly electrophilic cations. In addition, an ideal weakly coordinating anion should have a single negative charge dispersed over a large surface composed of relatively nonpolar bonds to weakly basic atoms such as hydrogen or the halogens. The fluorinated aminoborate monoanion developed by Strauss and Ivanov is both weakly coordinating and stable under a variety of conditions; it can also be formulated into a variety of physical forms. For example, the compound can be dissolved in a variety of solvents to provide solutions or a gel can be formulated by admixing the compound with an appropriate polymer or by admixing the compound with the polymer precursor prior to initiation of polymerization.

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Features and Benefits

The technology of polyfluorinated aminoborate anions has multiple advantages including stability under a variety of thermal and chemical conditions. Fluorinated aminoborate monoanions are useful in a variety of applications including catalyst activation and as an electrolyte in batteries.

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