

# HIGHLY LIPOPHILIC AND BULKY ORGANIC STABLE ANIONS: POLYFLUOROALKYL-SUBSTITUTED TETRAPHENYLBORON-ATE COMPLEXES

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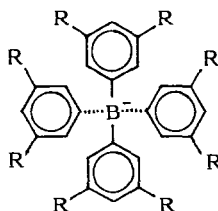
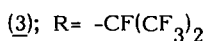
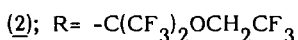
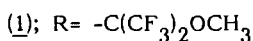
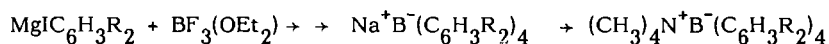
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On purpose of obtaining highly lipophilic and bulky stable anions, the polyfluoroalkyl-substituted tetraphenylboron-ate complexes, (1), (2) and (3), are synthesized according to the following scheme: .



The boron-ate complexes are isolated in the forms of tetramethylammonium salt, and of the structures containing two polyfluoroalkyl substituents on the 3- and 5-positions on each pendent phenyl ring of tetraphenylboron framework, which are fully characterized by chemical and instrumental analyses. Alkali metal salts of the fluorinated boron-ate complexes (1) ~ (3) are practically insoluble in water. Solubilities in a range of hyrophobic organic solvents and chemical stabilities in solution phase are given in comparisons with those of tetrakis(3,5-bis(trifluoromethyl)phenyl)boron-ate complex (TFPB).<sup>1)</sup> Applications of the fluorinated boron-ate complexes shall be discussed in terms of ion-pair extracting agent and anionic phase-transfer catalyst.

1 H. Nishida, T. Takada, M. Yoshimura, T. Sonoda, and H. Kobayashi, Bull. Chem. Soc. Jpn., 57, 2600 (1984).