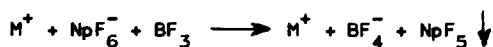


THE CHEMISTRY OF NEPTUNIUM FLUORIDES IN LIQUID ANHYDROUS HYDROGEN FLUORIDE. THE ISOLATION AND CHARACTERIZATION OF NpF_5

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Pure NpF_5 is precipitated from solutions of the alkali metal salts, MNpF_6 , in liquid anhydrous hydrogen fluoride by acid-base displacement reaction with BF_3



NpF_5 has the αUF_5 structure. It decomposes rapidly only above 280°C to give NpF_6 and NpF_4 . On hydrolysis in 1 M HClO_4 it disproportionates to give NpF_4 and NpO_2^{++} .

Characteristic optical spectra of the pure compound and the salts derived from it are given.