Synthesis of Partially Fluorinated Organic Compounds from Perfluoro-2-methyl-2-pentene and Phenol Derivatives

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Abstract — The reactions of perfluoro-2-methyl-2-pentene with substituted phenols and some heterocyclic compounds containing OH group result in the substitution of the fluorine atom either exclusively at the internal multiple bond or at the terminal multiple bond of perfluoro-2-methyl-1-pentene formed by isomerization of the starting perfluoroolefin in the course of the reaction. The reaction pathway depends on the reaction conditions, base used, and substituents in the benzene ring. The structures of the compounds were confirmed by ^{1}H, ^{13}C, and ^{19}F NMR and IR spectroscopy.