

REACTIVITY OF PERFLUOROALKENYLMAGNESIUM HALIDES : APPLICATION TO THE
SYNTHESIS OF NEW α - β UNSATURATED POLYFLUORINATED ALCOHOLS AND ORGANOMETALLIC
COMPOUNDS

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The reactivity of perfluoroalkenylmagnesium bromides $R_F-CF=CF-Mg-Br$ ($R_F=C_4F_9, C_6F_{13}$), obtained from the corresponding 1-bromo-perfluoroalkenes, has been investigated.

These Grignard reagents react with carbonyl compounds to give, with good yields, a series of new α - β unsaturated polyfluorinated alcohols $R_F-CF=CF-C(OH)RR'$ (1). The synthesis and spectrographic characteristics of these compounds are reported and discussed.

Perfluoroalkenyl mercuric and tin derivatives are obtained from the reaction of the perfluorinated Grignard reagents with mercuric salts and organotin halides respectively :

Spectroscopic identification and some chemical properties of these new perfluorinated organometallic compounds are given.

The good reactivity of these unsaturated derivatives towards protic acids and electrophiles, leading to the cleavage of the perfluoroalkenyl group, is used to study the possibilities of transmetalation reactions. Some examples of these reactions are reported.

- 1 P. MOREAU, R. ALBADRI, N. REDWANE et A. COMMEYRAS,
J. Fluorine Chem., 15, 1980, 103.