

DIFFERENT SELECTIVITIES IN FLUORINATION REACTIONS USING OLAH'S REAGENT OR $\text{Et}_3\text{N}/3\text{HF}$

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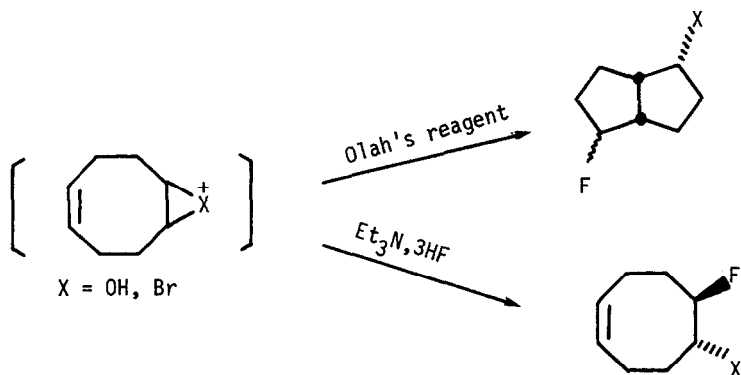
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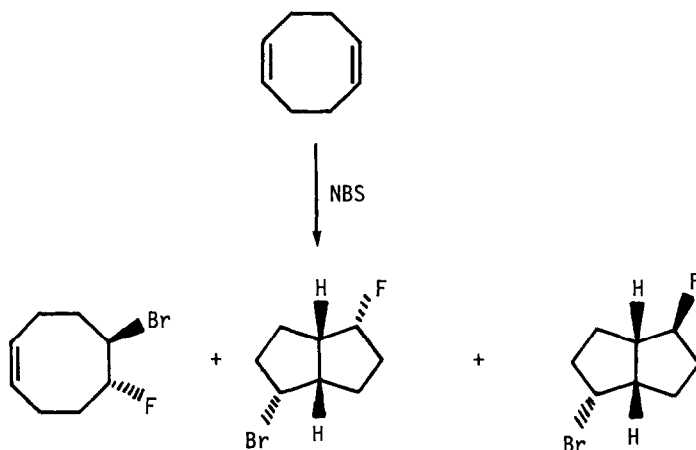
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Olah's reagent is a strongly acidic fluorinating agent, while the triethylamine trihydrofluoride reagent ($\text{Et}_3\text{N}/3\text{HF}$) is a neutral one. Furthermore the fluoride ion in $\text{Et}_3\text{N}/3\text{HF}$ reacts as a stronger nucleophile than in Olah's reagent.

The results of the present study show the different selectivity of both reagents in the reactions of various substrates. Applications for the synthesis of alicyclic fluoroamines, fluorinated heterocycles and fluoroamino sugars are presented. The different reactivity of both reagents are also studied in detail for bromofluorinations of cyclooctene and cyclodecene derivatives.





Et ₃ N, 3HF	92 %	2 %	6 %
Pyridin, 10HF	0 %	26 %	66 %