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$$\begin{array}{ccccccccc} \text{CF}_3\text{SO}_3^+\text{H}_2 & \left[\text{B}(\text{O}_3\text{S}-\text{CF}_3)_4\right]^- & \text{AlBr}_3 & \text{HF/NiF}_5 & \text{HF/TaF}_5 & \text{HF/TiF}_4 \\ 1 & & 2 & 3 & 4 & 5 \end{array}$$

The conjugate superacid 1 has been demonstrated so active, that the alkylation reaction already without action of ultrasound was locked up after 15 min. under strong evolution of isobutane. There is obtained in the presence of catalyst 2 a degree of conversion of 50 % after 2 h (without sonification) and after 15 min. (with sonification), respectively.