

## Electrochemical Oxidation of Benzylsilanes

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### Abstract

Electrochemical oxidation of substituted trialkylbenzylsilanes follows the ECE scheme including reversible electron transfer and formation of a short-lived radical cation, which can be detected for methoxybenzylsilanes at high sweep rates. In terms of the three-parameter model of the electrochemical reactivity of benzylsilanes, the inductive effect of alkyl substituents at the silicon on the rate of fragmentation of the radical cation is stronger than on the energy of the highest occupied molecular orbital, which results in the inversed influence on the effective oxidation potential.

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