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NEW CHIRAL ELECTROPHILIC SELENIUM REAGENTS: SYNTHESIS AND STRUCTURAL INVESTIGATION

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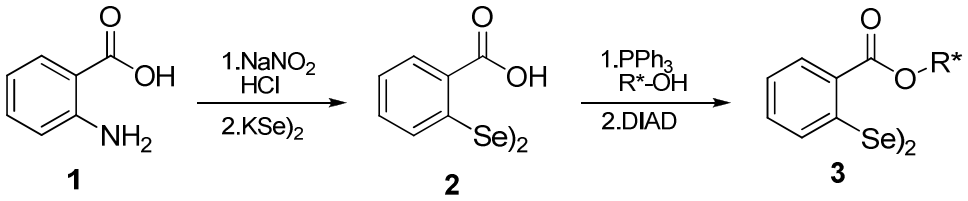
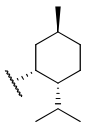
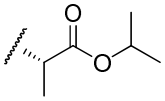
Synthesis and Synthetic Applications

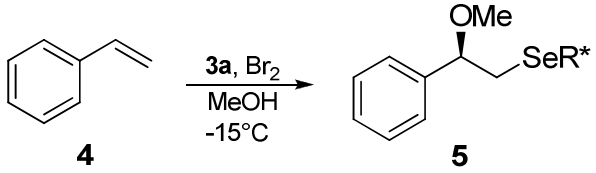


1 2 3

entry	R*	Yield %
a		70
b		60

The diselenide **2** was purified by crystallization and easily converted into 2,2′-diselenobisbenzoates **3a,b** by treatment in the stereospecific Mitsunobu conditions with two optically pure alcohols the menthol, and the isopropyl-lactate respectively.

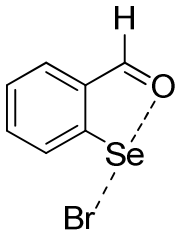
The methoxyselenenylation of styrene afforded the selenide **5** in good yield and moderate diastereomeric excess.



4 **5**

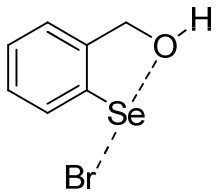
90% yield 40 % de

S-O interaction by ^{77}Se Chemical Shifts



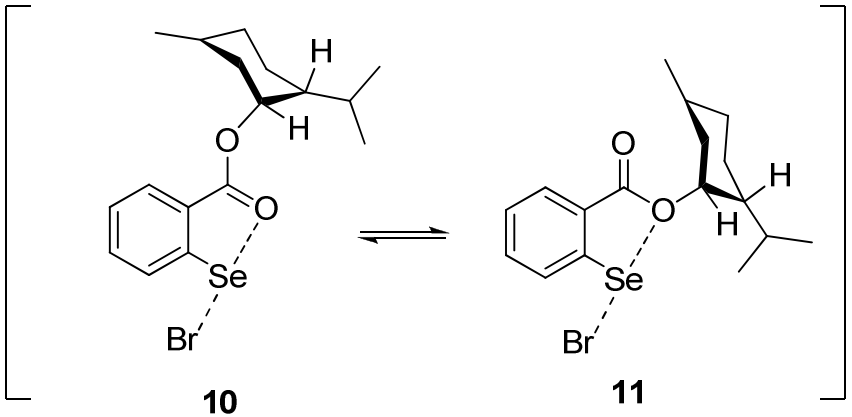
8

^{77}Se-NMR δ = 1029 ppm



9

^{77}Se-NMR δ = 839 ppm



10

^{77}Se-NMR δ = 1067 ppm

11

^{77}Se-NMR δ = 944 ppm