

NUCLEOPHILIC REACTIONS OF PENTAFLUOROPHENYLGERMANES

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Studies of the nucleophilic reactions of $C_6F_5GeR_3$ ($R = Me, Et$) revealed an unusual dependence of orientation of the attack on the nature of nucleophile.

	$4-NuC_6F_4H$ + C_6F_5H ----- (Yields)	$4-NuC_6F_4GeR_3$ -----
$C_6F_5GeR_3$ —	PrO^- → 88%	
	$C_5H_{10}NH$ → 52%	14%
	PrS^- → 19%	66%
	$BuLi$ →	84%
	$LiAlH_4$ →	85%
($M=Ge, Sn$)	$R_3M^- Y^+$ →	60%

Orientation of the attack is discussed in terms of the inductive effect of R and GeR_3 . The paper considers the use of "soft - hard" nucleophile - electrophile reactions to predict the structure of products.