

Nucleophilic substitution of the allylic amino group in double aminomethylated chlorophyll *a* derivatives

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Abstract

Nucleophilic substitution reaction of 3(1),3(2)-bis-(*N,N*-dimethylaminomethyl)-chlorin *e*₆ 13(1)-*N*-methyl amide-15(2),17(3)-dimethyl ester as a substrate with a series of alcohols, phenol and some amines as a nucleophiles using different ways of carbocation from allylic dimethylamino groups formation were studied. Nucleophilic substitution was realized in case of Zn(OAc)₂ and some *O*-nucleophiles.