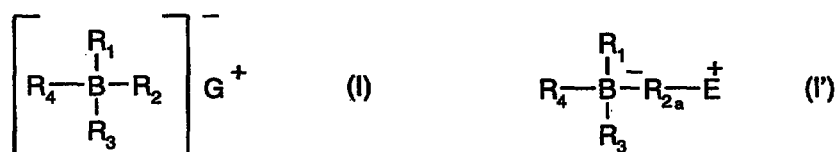


Borate coinitiators for photopolymerization

Abstract

Compounds of the formula I or I'



in which R_1 and R_2 independently of one another, for example, are an aromatic hydrocarbon, with the proviso that the aromatic hydrocarbon radical is substituted in at least one o-position, or R_1 and R_2 , for example, independently of one another are C_1 - C_{20} alkyl, which is substituted by $R_9R_{10}R_{11}Si$; R_{2a} is, for example, a divalent aromatic hydrocarbon radical; R_3 is C_1 - C_{20} alkyl which is substituted by $R_9R_{10}R_{11}Si$ or is an aromatic hydrocarbon; R_4 is, for example, C_1 - C_{20} alkyl, C_3 - C_{12} cycloalkyl or phenyl- C_1 - C_6 alkyl; E is $R_{14}R_{15}R_{16}P$ or $R_8R_{8a}R_7N$; R_7 , R_8 and R_{8a} and R_9 , R_{10} and R_{11} independently of one another are, for example, C_1 - C_{12} alkyl; R_{14} , R_{15} and R_{16} independently of one another are substituted phenyl and G is a radical which is able to form positive ions, with the proviso that, if R_1 , R_2 and R_3 are 2,4,6-trimethylphenyl, R_4 is not C_2 - C_{20} alkyl or C_2 - C_8 alkenyl, are suitable for use as particularly reactive photoinitiators.