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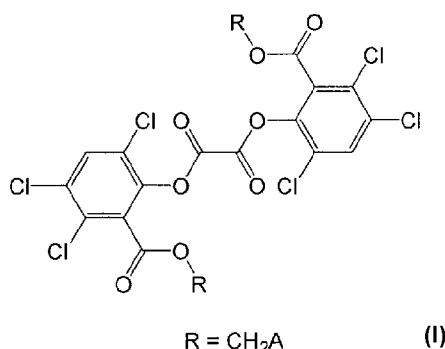
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(54) Title: CHEMICAL LIGHT PRODUCING FORMULATIONS AND DEVICES CONTAINING BRANCHED OXALATE ESTERS



(57) Abstract: Chemical light producing systems and the chemiluminescent formulations contained therein are taught which exhibit reduced hydrolysis and thereby are characterized by an inherently long shelf-life and commercial viability. By replacing the typical oxalate ester, e.g. (bis{3,4,6-trichloro-2-[(pentoxy)carbonyl] phenyl} oxalate) with a branched chain oxalic acid ester represented by the general formula: wherein the group designated as R contains from 4-15 carbons, wherein the carbon of attachment of R to the oxygen is via a primary carbon, and wherein substructure A is composed of substituents selected from the group including alkyl chains, alkyl rings, aromatic rings and combinations thereof such that R is nonlinear, water hydrolysis of the oxalate ester is retarded. This retardation of the hydrolysis changes the storage constraints of the oxalate ester.