

Title (en)

A photosensitive silver halide element with increased photosensitivity

Title (de)

Lichtempfindliches Silberhalogenidelement mit verbesserter Lichtempfindlichkeit

Title (fr)

Élément photosensible à l'halogénure d'argent ayant une photosensibilité améliorée

Publication

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Application

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Priority

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Abstract (en)

A photosensitive element comprising a silver halide emulsion having silver halide grains containing an organic hole-trapping dopant. In a preferred embodiment said dopant is represented by formula (I): $\text{R-COOM}^{\oplus}(\text{I})$ wherein R is hydrogen, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aralkyl group or hetero-aryl group, and M is hydrogen or any metal or organic group which can form a salt or by formula (II): $\text{X-CH}_2\text{-CH}_2\text{-Y}$ wherein X and Y are independently selected from O, S, Se, m is 1 and n is 1 or 2, R1 and R2 are hydrogen, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl or aralkyl group or a substituted or unsubstituted heteroaryl group, wherein R1 and R2 may be the same or different and may form a ring, E represents a group linked to the carbon atom by a heteroatom, having at least one free electron pair, M+ is a proton or an organic or inorganic (metal) counterion. Moreover the invention provides a photosensitive element where said photosensitive element can be a photoaddressable thermographic element. The invention also provides a method for preparing said photosensitive element comprising a support and on one or both sides thereof at least one silver halide emulsion layer wherein the silver halide grains are doped with an organic hole-trapping dopant according to formula (I) or (II), optionally carried out in the presence of an oxidizing agent.

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