

Title (en)
System and method for radiological image formation

Title (de)
System und Verfahren zur Röntgenbild Herstellung

Title (fr)
Système et méthode de formation d'image radiologique

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Application
EP 98200468 A 19980213

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Abstract (en)
An image-forming system for radiological imaging is disclosed said system consisting of an intensifying screen comprising on a support at least one layer of a green-light emitting phosphor and, in operative association therewith, a prehardened light-sensitive photographic silver halide film material, comprising a support and on both sides thereof one or more hydrophilic colloid layers, said layers being hardened to such an extent that their swelling degree is reduced to less than 200 % after immersing said material for 2 minutes in demineralised water of 35 DEG C; further comprising in at least one of said hydrophilic layers chemically ripened, monodisperse essentially cubic silver chloriodide grains having a mean crystal diameter of from 0.40 μ m up to 0.65 μ m; wherein said grains have been spectrally sensitised in the wavelength range between 520 and 580 nm, have a maximum absorption between 540 and 550 nm and have been coated in a total amount of silver per sq.m. of from 6 g up to 8 g, wherein said amount is expressed as an equivalent amount of silver nitrate per sq.m.; said image-forming system being characterised in that said silver chloriodide grains have been doped with a complex ion compound satisfying the formula M L_6 wherein M represents a filled frontier orbital polyvalent metal ion; L6 represents six coordination complex ligands which are independently selected, provided that at least three, more preferred four, of the said ligands are more electronegative than any halide ligand and at least four of the said ligands are anionic ligands; n = 1, 2, 3 or 4; and wherein the energetic distance between filled higher occupied (HOMO) and lower unoccupied (LUMO) molecular orbital is more than 27000 cm^{-1} .

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