

Title (en)
USE OF A LUMINOPHORE AS SECURITY FEATURE, SECURITY PRINTING INK, METHOD AND DEVICE FOR CHECKING A DOCUMENT AND DOCUMENT AND SECURITY FEATURE

Title (de)
VERWENDUNG EINES LEUCHTSTOFFS ALS SICHERHEITSMERKMAL, SICHERHEITSDRUCKFARBE, VERFAHREN UND VORRICHTUNG ZUM ÜBERPRÜFEN EINES DOKUMENTS SOWIE DOKUMENT UND SICHERHEITSMERKMAL

Title (fr)
UTILISATION D'UNE SUBSTANCE LUMINESCENTE COMME MARQUE DE SÉCURITÉ, ENCRE D'IMPRIMERIE DE SÉCURITÉ, PROCÉDÉ ET DISPOSITIF DE VÉRIFICATION D'UN DOCUMENT ET DOCUMENT ET MARQUE DE SÉCURITÉ

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Application
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Abstract (en)
[origin: WO2008132223A2] The invention relates to the use of a luminophore of formula (Y_{1-x-y}Yb_xEr_y₂O₃ where x = 0.20 and y = 0.075 as security feature with anti-Stokes luminescence. Said luminophores, on stimulation with IR laser, display two peaks in the 540 nm and 670 nm region, the intensity ratio of which varies strongly and does not only depend on the proportion of Yb and Er but, for example also on the particle size. When the luminophore is present in the form of nanoparticles, preferably with a particle size of 0.1-0.5 µm, not only is the peak at 670 nm favoured but the advantage that the nanoparticles are not visible under normal light and the print quality is not affected is achieved. Security print inks with such a luminophore are also disclosed, furthermore, a method and a device for checking a document and a document with such a luminophore as security feature.

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