

Title (en)
SECURITY ELEMENT WITH AN OPTICALLY VARIABLE SURFACE PATTERN

Title (de)
SICHERHEITSELEMENT MIT OPTISCH VARIABLEM FLÄCHENMUSTER

Title (fr)
ÉLÉMENT DE SÉCURITÉ COMPRENANT UN MOTIF DE SURFACE OPTIQUEMENT VARIABLE

Publication
EP 3969292 A1 20220323 (DE)

Application
EP 20725772 A 20200508

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Abstract (en)
[origin: WO2020233833A1] The invention relates to a security element (12) for securing valuable objects, the security element having an optically variable surface pattern (14) which generates a predefined greyscale image (18-A) with different lightness values when viewed in reflected light at a predefined viewing angle (16-A). The optically variable surface pattern (14) is formed from a plurality of facets (20) which have a substantially geometrically optical effect and the lateral dimensions of which are less than 100 μm and the orientation of which is characterised in each case by an inclination angle α to the plane of the surface pattern (14) and by an azimuth angle φ in the plane of the surface pattern (14), the orientation of a facet corresponding in each case to an associated characteristic viewing angle (24), and the greyscale image (18-A) being generated from a multiplicity of facets (20) of the optically variable surface pattern (14). The different lightness values of the greyscale image (18-A) are generated by different angle differences (δ) between the characteristic viewing angle (24) of the facets (20) involved in the image generation and the predefined viewing angle (16-A), smaller angle differences corresponding to lighter greyscales and larger angle differences corresponding to darker greyscales.

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