

Title (en)
Method for producing a data carrier and data carrier obtainable therefrom

Title (de)
Verfahren zum Herstellen eines Datenträgers und daraus erhältlicher Datenträger

Title (fr)
Procédé de fabrication d'un support de données et support de données ainsi obtenu

Publication
EP 2626215 B1 20150603 (DE)

Application
EP 13000578 A 20130205

Priority
DE 102012002296 A 20120207

Abstract (en)
[origin: EP2626215A1] The method comprises forming a structured substrate layer (22) using a printing ink, applying an infra-red (IR) absorbing component on the structured substrate layer, forming a structured marking layer (24) using the printing ink, where colors of structured substrate layer and the marking layer are different from each other, and applying laser beam to a data carrier comprising a substrate so that the marking layer is produced by removing the IR-absorbing component detectable in the infrared spectral region. The method comprises forming a structured substrate layer (22) using a printing ink, applying an infra-red (IR) absorbing component on the structured substrate layer, forming a structured marking layer (24) using the printing ink, where colors of structured substrate layer and the marking layer are different from each other, and applying laser beam to a data carrier comprising a substrate so that the marking layer is produced by removing the IR-absorbing component detectable in the infrared spectral region and a color change of the marking layer caused by application of laser in the infrared region is masked by the substrate layer in a visible spectral identification. The mark layer is formed by a printing layer. The substrate layer and the marking layer comprise a high surface covering of 40-70%. The substrate layer is formed in the form of a grid and a line screen, and the mark layer is formed in the form of fine structures and patterns. The substrate layer comprises grid elements having first and second colors that are different from each other. The infra-red laser has a wavelength of 0.8-3 μ m, is neodymium-doped yttrium aluminum garnet laser or neodymium-yttrium vanadate laser, and has a pulse rate of 30-50 kHz, a power of 10300 Watt and a velocity of 1500-10000 mm/s.

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