

Title (en)  
Transmission security element

Title (de)  
Durchsichtssicherheitselement

Title (fr)  
Élément de sécurité à transmission

Publication  
**EP 2219168 B1 20180711 (DE)**

Application  
**EP 10000465 A 20100119**

Priority  
DE 102009008853 A 20090213

Abstract (en)  
[origin: EP2219168A2] The security element (40) has a thin film element (42) i.e. two-layered thin film element, with color shift effect and comprising a metallic layer (44) and a dielectric layer (46), where the metallic layer is semitransparent and the security element exhibits a color in transmitted light at an angle between 0 and 40 degrees. Thickness of the metallic layer lies between 5 and 70 nm. The metallic layer forms a selective absorbent optical element in a visible spectral range. An independent claim is also included for a method for manufacturing a transmission security element.

IPC 8 full level  
**B42D 25/373** (2014.01); **B42D 25/29** (2014.01)

CPC (source: EP US)  
**B42D 15/00** (2013.01 - EP); **B42D 25/373** (2014.10 - US)

Citation (opposition)  
Opponent : Hueck Folien Gesellschaft m.b.H.  
• WO 0103945 A1 20010118 - FLEX PRODUCTS INC [US]  
• WO 03095227 A1 20031120 - KURZ LEONHARD FA [DE], et al  
• WO 2006069663 A2 20060706 - ECKART GMBH & CO KG [DE], et al  
• WO 03095228 A1 20031120 - KURZ LEONHARD FA [DE], et al

Cited by  
EP2196321A3; CN106574996A; US10336124B2; CN108349291A; CN112634743A; CN114423619A; US10328738B2; US10598833B2; WO2016012084A1; WO2022227744A1; EP2974879B1; EP3691911B1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2219168 A2 20100818; EP 2219168 A3 20150923; EP 2219168 B1 20180711; DE 102009008853 A1 20100819**

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