

Title (en)  
FILM ELEMENT HAVING A POLYMER LAYER

Title (de)  
FOLIENELEMENT MIT POLYMERSCHICHT

Title (fr)  
ÉLÉMENT EN FEUILLE À COUCHE DE POLYMÈRE

Publication  
**EP 2144731 B1 20120321 (DE)**

Application  
**EP 08749389 A 20080507**

Priority  
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Abstract (en)  
[origin: US2010304053A1] The invention concerns a film element (20), in particular an embossing film, a laminating film or a sticker film, and a security document (1) having such a film element. The film element (20) has a first polymer layer comprising an at least partially oriented liquid crystal material, wherein the first polymer layer has one or more first regions which form a first security feature (41, 42) and in which the polymer layer in a case a) has linearly polarising or polarisation direction-rotating properties or in a case b) has circularly polarising properties. The film element further has a third polymer layer comprising an at least partially oriented liquid crystal material, wherein the third polymer layer has one or more third regions which form a second security feature and in which the polymer layer in the case a) has linearly polarising or polarisation direction-rotating properties or in the case b) circularly polarising properties. The film element further has a second polymer layer which is arranged between the first and third polymer layers and which in the regions arranged beneath the first regions and in the regions arranged above the third regions in the case a) has circularly polarising properties and in the case b) has linearly polarising or polarisation direction-rotating properties.

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Citation (examination)  
• WO 2005105474 A2 20051110 - GIESECKE & DEVRIENT GMBH [DE], et al  
• EP 1894736 A2 20080305 - GIESECKE & DEVRIENT GMBH [DE]  
• WO 9852077 A1 19981119 - ROLIC AG [CH], et al  
• JP 2000255200 A 20000919 - DAINIPPON PRINTING CO LTD

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CN102264547A

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