

Title (en)
SECURITY ELEMENT

Title (de)
SICHERHEITSELEMENT

Title (fr)
ELEMENT DE SECURITE

Publication
EP 1549501 B1 20080521 (DE)

Application
EP 03750579 A 20030918

Priority
• DE 10243650 A 20020919
• EP 0310426 W 20030918

Abstract (en)
[origin: WO2004028824A2] The invention relates to a valuable object comprising a security element which is provided with at least one first and one second liquid crystalline material. The first material has thermochromic properties while the second material has an optically variable effect.

IPC 8 full level
B42D 15/00 (2006.01); **B42D 15/10** (2006.01)

CPC (source: EP US)
B42D 25/29 (2014.10 - EP US); **B42D 25/355** (2014.10 - EP US); **B42D 25/364** (2014.10 - US); **B42D 25/391** (2014.10 - EP US); **B42D 2033/26** (2022.01 - EP); **B42D 2035/20** (2022.01 - EP); **B42D 2035/34** (2022.01 - EP); **Y10S 359/90** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2004028824 A2 20040408; WO 2004028824 A3 20040805; AT E396060 T1 20080615; AU 2003270224 A1 20040419; CA 2499279 A1 20040408; CA 2499279 C 20110802; CN 100532123 C 20090826; CN 1688452 A 20051026; DE 10243650 A1 20040401; DE 50309894 D1 20080703; EP 1549501 A2 20050706; EP 1549501 B1 20080521; ES 2305489 T3 20081101; JP 2005538878 A 20051222; JP 4750417 B2 20110817; PL 205932 B1 20100630; PL 374606 A1 20051031; RU 2005111603 A 20061027; RU 2322358 C2 20080420; US 2006023132 A1 20060202; US 7054043 B2 20060530

DOCDB simple family (application)
EP 0310426 W 20030918; AT 03750579 T 20030918; AU 2003270224 A 20030918; CA 2499279 A 20030918; CN 03821874 A 20030918; DE 10243650 A 20020919; DE 50309894 T 20030918; EP 03750579 A 20030918; ES 03750579 T 20030918; JP 2004538950 A 20030918; PL 37460603 A 20030918; RU 2005111603 A 20030918; US 52842505 A 20050318