

Title (en)
Process and apparatus for providing security paper with security elements.

Title (de)
Verfahren und Vorrichtung zur Ausstattung von Wertpapieren mit Echtheitsmerkmalen.

Title (fr)
Procédé et dispositif pour munir un papier fiduciaire d'éléments de sécurité.

Publication
EP 0659935 A3 19960417 (DE)

Application
EP 94120572 A 19941223

Priority
DE 4344552 A 19931224

Abstract (en)
[origin: EP0659935A2] In a process for providing security papers with authenticity features, a homogeneous mixture of a feature material which is present in powder form and a gas in a defined concentration is produced. This mixture is ejected at high velocity from at least one nozzle arranged at a predetermined distance from the paper web and is transferred to the running paper web. <IMAGE>

IPC 1-7
D21H 21/42

IPC 8 full level
B05B 7/14 (2006.01); **B41M 3/14** (2006.01); **B44F 1/12** (2006.01); **D21H 21/40** (2006.01); **D21H 23/50** (2006.01)

CPC (source: EP US)
B41M 3/14 (2013.01 - EP US); **D21H 21/40** (2013.01 - EP US); **D21H 23/50** (2013.01 - EP US)

Citation (search report)
• [DY] GB 643430 A 19500920 - JAMES DONALD MACLAURIN
• [PY] EP 0598559 A1 19940525 - PHILIP MORRIS PROD [US]
• [YX] DE 1950400 A1 19710225 - RANSBURG ELECTRO COATING CORP [US]
• [YX] DE 3525138 A1 19870115 - DIEDRICHS HELMUT W
• [PX] US 5279854 A 19940118 - KENDALL JEFFERY D [US], et al
• [DA] DE 2905441 A1 19800821 - GAO GES AUTOMATION ORG
• [A] WO 9003225 A1 19900405 - SUNDHOLM PATRICK [FI], et al
• [DA] US 3997433 A 19761214 - LIU BENJAMIN Y H, et al
• [DA] GB 696673 A 19530909 - JOHN KNAGGS

Cited by
EP1801290A3; DE10120818A1; CN101967766A; GB2375322A; GB2375322B; DE102008012221B4; EP1253241A2; US7845570B2; US7790056B2; DE102013009222A1; WO9913158A1; WO2019086080A1; WO03032243A1; EP1673735A1; WO2005035261A1; US7819434B2; US7906201B2; WO0166360A1; WO9703844A1; US7927511B2; EP2818326A1; DE102013010681A1; US9023475B2

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0659935 A2 19950628; EP 0659935 A3 19960417; EP 0659935 B1 20000517; AT E193071 T1 20000615; DE 4344552 A1 19950629; DE 59409358 D1 20000621; ES 2145089 T3 20000701; FI 946060 A0 19941223; FI 946060 A 19950625; US 5897746 A 19990427

DOCDB simple family (application)
EP 94120572 A 19941223; AT 94120572 T 19941223; DE 4344552 A 19931224; DE 59409358 T 19941223; ES 94120572 T 19941223; FI 946060 A 19941223; US 82419597 A 19970325