

Title (en)
Security of printing articles

Title (de)
Sicherheit von bedruckten Gegenständen

Title (fr)
Sécurité d'articles imprimés

Publication
EP 1066978 A3 20010328 (EN)

Application
EP 00113475 A 20000626

Priority
• GB 9916166 A 19990709
• GB 0007183 A 20000325

Abstract (en)
[origin: EP1066978A2] There is disclosed a security printing system involving the use of thermochromic inks printed on an article such as a lottery ticket or pre-paid telephone card having an amount of credit thereon for use in a mobile telecommunications network. Two layers of thermochromic ink are applied to the article each having a different and sufficiently separate activation temperatures at which a certain characteristic of the ink changes, for example its colour, opacity, transparency or translucency. The first applied layer, in the shape of a validation mark or the like, ideally has an activation temperature higher than the second layer applied thereover, so that two separate tests can be performed on the article. A first test is the application of heat to the mark by a human finger or the like whereupon the second layer becomes ideally transparent to reveal the validation mark. The second test is the application of more heat, for example by a hairdryer or other dedicated heating apparatus, whereupon a particular characteristic of the first ink changes.

IPC 1-7
B41M 3/14; B42D 15/10

IPC 8 full level
B41M 3/14 (2006.01)

CPC (source: EP)
B41M 3/14 (2013.01)

Citation (search report)
• [XY] US 4554565 A 19851119 - KITO TUTOMU [JP], et al
• [Y] EP 0523888 A1 19930120 - PILOT INK CO LTD [JP]
• [X] US 3874240 A 19750401 - REMBAUM ALAN
• [A] WO 9731784 A2 19970904 - VERIFY FIRST TECHNOLOGIES INC [US]

Cited by
WO03103983A1; FR3034227A1; CN109165960A; FR3027845A1; EP2863353A1; US10940712B2; US11090968B2; US7665732B2; WO2009106242A1; WO2005098948A1; WO2016071627A1; US7157301B2; US7154170B2; WO2008024187A3; WO2015055506A1

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

DOCDB simple family (publication)
EP 1066978 A2 20010110; EP 1066978 A3 20010328; AU 4505700 A 20010118; CA 2312642 A1 20010109; CN 1280065 A 20010117; EA 200000624 A2 20010226; EA 200000624 A3 20010423; ID 26475 A 20010111; PL 341275 A1 20010115

DOCDB simple family (application)
EP 00113475 A 20000626; AU 4505700 A 20000705; CA 2312642 A 20000628; CN 00109841 A 20000707; EA 200000624 A 20000707; ID 20000576 D 20000710; PL 34127500 A 20000707