

Title (en)  
Security of printing articles

Title (de)  
Sicherheit von bedruckten Gegenständen

Title (fr)  
Sécurité d'articles imprimés

Publication  
**EP 1066978 A2 20010110 (EN)**

Application  
**EP 00113475 A 20000626**

Priority  
• GB 9916166 A 19990709  
• GB 0007183 A 20000325

Abstract (en)  
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)

Cited by  
WO03103983A1; FR3034227A1; EP2863353A1; CN109165960A; FR3027845A1; US11090968B2; US7665732B2; US10940712B2; WO2005098948A1; WO2016071627A1; WO2009106242A1; 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