

Title (en)
IDENTIFYING RECYCABLE CARPET MATERIALS USING A HAND-HELD INFRARED SPECTROMETER

Title (de)
UNTERSCHIEDUNG WIEDERVERWERTBARER TEPPICHMATERIALIEN MITTELS EINES HANDGEHALTENEN INFRAROT-SPEKTROMETERS

Title (fr)
IDENTIFICATION DES MATERIAUX RECYCLABLES COMPOSANT LES TAPIS ET MOQUETTES, PAR UTILISATION D'UN SPECTROMETRE INFRAROUGE TENU A LA MAIN

Publication
EP 0836705 A1 19980422 (EN)

Application
EP 96922283 A 19960705

Priority
• NL 9600280 W 19960705
• NL 1000738 A 19950706

Abstract (en)
[origin: WO9702481A1] A method and apparatus for use in the recycling of post consumer or post industrial waste carpet or Polyamide-6 and/or Polyamide-66 containing non-carpet waste utilizes a hand-held portable device utilizing spectroscopic principles to accurately and quickly identify the material of the waste (carpet). The spectrometer envisioned for this task includes an infrared radiation source for illuminating the waste (carpet) sample, a selector for selecting a predetermined number of discrete wavelengths and a detection system to detect reflected radiation within the discrete wavelengths. The selector can be either a plate with a plurality of slots which positionally correspond to locations in a dispersed light beam according to the predetermined discrete wavelengths or a plurality of filters selected to pass the discrete wavelengths. The selection of the discrete wavelengths can either take place before the carpet sample is irradiated or can take place by selecting the discrete wavelengths from reflected radiation.

IPC 1-7
G01N 21/35; **G01J 3/30**

IPC 8 full level
G01N 21/35 (2014.01); **G01J 3/30** (2006.01)

CPC (source: EP KR)
G01J 3/30 (2013.01 - EP KR); **G01N 21/35** (2013.01 - KR); **G01N 21/3563** (2013.01 - EP); **G01J 3/0229** (2013.01 - EP); **G01N 2201/0221** (2013.01 - EP); **G01N 2201/129** (2013.01 - EP)

Citation (examination)
• DE 4340795 A1 19950302 - LUCHT HARTMUT DR RER NAT [DE]
• SCOTT D.M.: "A TWO-COLOUR NEAR-INFRARED SENSOR FOR SORTING RECYCLED PLASTIC WASTE", JOURNAL OF PHYSICS E. SCIENTIFIC INSTRUMENTS, vol. 6, no. 2, February 1995 (1995-02-01), BRISTOL, GB, pages 156 - 159
• See also references of WO 9702481A1

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

DOCDB simple family (publication)
WO 9702481 A1 19970123; CA 2226095 A1 19970123; CN 1195402 A 19981007; CN 1221799 C 20051005; EP 0836705 A1 19980422; JP H11508689 A 19990727; KR 100460972 B1 20050517; KR 19990028796 A 19990415; MX 9800206 A 19980430; MY 118331 A 20041030; NL 1000738 C2 19970108; TW 298614 B 19970221

DOCDB simple family (application)
NL 9600280 W 19960705; CA 2226095 A 19960705; CN 96196689 A 19960705; EP 96922283 A 19960705; JP 50503197 A 19960705; KR 19980700096 A 19980106; MX 9800206 A 19960705; MY PI9602800 A 19960706; NL 1000738 A 19950706; TW 85108557 A 19960715