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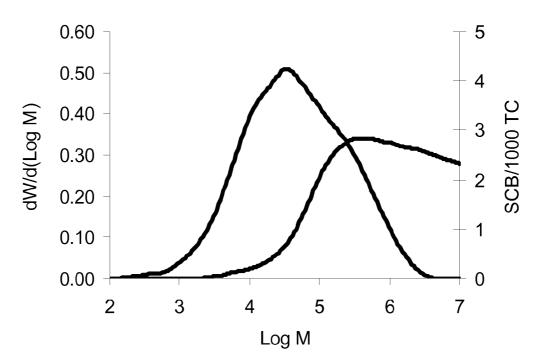
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(54) Title: METHOD FOR EMPLOYING SEC-FTIR DATA TO PREDICT MECHANICAL PROPERTIES OF POLYETHYLENE



(57) Abstract: The present invention provides several methods of determining values of physical or chemical properties of polymers. In these methods, at least two polymer training samples are provided. Characteristics of the polymer microstructures of the training samples are correlated with values of physical or chemical properties of the training samples. These correlations are subsequently applied to the respective characteristics of polymer test samples in order to determine the values of physical or chemical properties of the test samples.



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INTERNATIONAL SEARCH REPORT

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. CLASSIFICATION OF SUBJECT MATTER NV. G01N33/44 ÎNV. According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) GOIN COSF COSL Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, EMBASE, FSTA, MEDLINE, BIOSIS, COMPENDEX C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. 1 - 38A HANSEN C M: "On predicting environmental stress cracking in polymers" POLYMER DEGRADATION AND STABILITY, BARKING, GB, vol. 77, no. 1, 2002, pages 43-53, XP004355295 ISSN: 0141-3910 pages 44-45 NIELSEN T B ET AL: "Surface wetting and 1 - 38Α the prediction of environmental stress cracking (ESC) in polymers" POLYMER DEGRADATION AND STABILITY, BARKING, GB, vol. 89, no. 3, September 2005 (2005-09), pages 513-516, XP004928816 ISSN: 0141-3910 page 515 -/--X Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 02/01/2008 19 December 2007 Authorized officer Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Michalitsch, Richard

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