

Title (en)

MOISTURE-ABSORBING FIBER DYEABLE WITH ACID DYES AND METHOD FOR PRODUCING SAME

Title (de)

MIT SAUREN FÄRBEMITTELN FÄRBBARE FEUCHTIGKEITSABSORBIERENDE FASER UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)

FIBRE ABSORBANT L'HUMIDITÉ APTÉ À ÊTRE TEINTE AVEC DES COLORANTS ACIDES ET PROCÉDÉ POUR SA PRODUCTION

Publication

EP 2458082 A4 20171227 (EN)

Application

EP 10802210 A 20100715

Priority

- JP 2009170867 A 20090722
- JP 2010061937 W 20100715

Abstract (en)

[origin: EP2458082A1] The conventional crosslinked acrylic acid fiber has such characteristics that the harmonic functions such as pH buffer property, antistatic property and water-holding property and also high moisture-absorption rate, high moisture-absorption velocity, high moisture-absorption rate difference or temperature adjusting and humidity adjusting functions derived therefrom, but there is still a problem for its dyeing property. The present invention provides a fiber having the above characteristics and making a practical dyeing with an acid dye possible. To be more specific, the present invention provides a moisture-absorptive fiber dyeable with an acid dye, comprising a region of a polymer having a functional group acting as a dyeing site for acid dye and a region of a polymer having a crosslinked structure and a carboxyl group, wherein the saturation dye uptake of the acid dye to the fiber weight is 3.5 to 10% by weight and the carboxyl group content is 1.0 to 10 mmol/g.

IPC 8 full level

D01F 6/18 (2006.01); **D06P 1/52** (2006.01); **D06P 1/645** (2006.01); **D06P 1/673** (2006.01); **D06P 3/74** (2006.01); **D06P 5/00** (2006.01); **D06P 5/22** (2006.01)

CPC (source: EP KR)

D01F 6/18 (2013.01 - EP KR); **D01F 6/54** (2013.01 - KR); **D06M 11/00** (2013.01 - KR); **D06M 11/63** (2013.01 - KR); **D06P 1/5242** (2013.01 - EP); **D06P 1/645** (2013.01 - EP); **D06P 1/673** (2013.01 - EP); **D06P 1/6735** (2013.01 - EP); **D06P 3/06** (2013.01 - KR); **D06P 5/002** (2013.01 - EP); **D06P 5/22** (2013.01 - EP); **D06P 3/74** (2013.01 - EP)

Citation (search report)

- [Y] US 3823204 A 19740709 - OKADA H, et al
- [XYI] BANDAK A ET AL: "HYDRAZINE TREATMENTS ON ACRYLIC FIBERS FOR NEW DYEING OPPORTUNITIES", AMERICAN DYESTUFF REPORTER, SAF INTERNATIONAL PUBLICATIONS, SECAUSUS, US, vol. 84, no. 6, 1 June 1995 (1995-06-01), pages 34,37 - 44, XP000512415, ISSN: 0002-8266
- [Y] DATABASE WPI Week 198131, Derwent World Patents Index; AN 1981-56237D, XP002775635
- [Y] DATABASE WPI Week 197522, Derwent World Patents Index; AN 1975-36524W, XP002775636
- See references of WO 2011010590A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2458082 A1 20120530; **EP 2458082 A4 20171227**; CN 102575415 A 20120711; CN 102575415 B 20140219; JP 5590341 B2 20140917; JP WO2011010590 A1 20121227; KR 101650495 B1 20160823; KR 20120035149 A 20120413; TW 201107556 A 20110301; TW I481759 B 20150421; WO 2011010590 A1 20110127

DOCDB simple family (application)

EP 10802210 A 20100715; CN 201080029174 A 20100715; JP 2010061937 W 20100715; JP 2011523618 A 20100715; KR 20117027545 A 20100715; TW 99123901 A 20100721