

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(43) 国际公布日:
2003年7月10日(10.07.2003)

PCT

(10) 国际公布号:
WO 03/056076 A1

(51) 国际分类号⁷: D01F 8/02, 8/04, 4/06, 4/00, 6/14, 11/02, D01D 1/02, 5/06

(21) 国际申请号: PCT/CN02/00943

(22) 国际申请日: 2002年12月31日(31.12.2002)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
02109966.9 2002年1月4日(04.01.2002) CN

(71)(72) 发明人/申请人: 李官奇(LI, Guanqi) [CN/CN];
中国河南省濮阳市京开大道59号, Henan 457000 (CN)。

(74) 代理人: 北京三友知识产权代理有限公司(BEIJING SANYOU INTELLECTUAL PROPERTY AGENT LTD.); 中国北京市北三环中路40号, Beijing 100088 (CN)。

(81) 指定国(国家): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

(84) 指定国(地区): ARIPO专利(GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚专利(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 欧洲专利(AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI专利(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

本国际公布:
— 包括国际检索报告。

所引用双字母代码和其它缩写符号, 请参考刊登在每期PCT公报期刊起始的“代码及缩写符号简要说明”。

(54) Title: PHYTOPROTEIN SYNTHETIC FIBRE AND THE METHOD OF MAKING THE SAME

(54) 发明名称: 植物蛋白质合成纤维及其制造方法

(57) Abstract: A phytoprotein synthetic fibre and the method of making the same are disclosed in this invention. The synthetic fibre is consisted of vegetable protein and polyvinyl alcohol, and based on the total amount of these two materials, the amount of the vegetable protein (A, parts) is $5 \text{ parts} \leq A < 23 \text{ parts}$, the amount of the polyvinyl alcohol (B, parts) is $77 \text{ parts} < B \leq 95 \text{ parts}$. The method of making the same includes the procedures of semi-finished product processing and the semi-finished products being further finished and acetalized to obtain the end products. The procedure of semi-finished product processing is carried out in sequence: taking the vegetable protein and the polyvinyl alcohol according to the predetermined proportioning respectively, and then preparing the spinning dope(s); deaerating the dope followed by wet spinning in wet-spinning frame; introducing the synthetic filaments from the frame into the coagulant held in the coagulating bath, giving the semi-finished product by air drafting, wet spinning drawing, drying, dry heat stretching and heat setting. Synthetic fibers prepared by this method have the features of good breathability, etc., and the period of the manufacture is shortened, the productivity is improved.

(57) 摘要

本发明公开了一种植物蛋白质合成纤维及其制造方法, 其中合成纤维由植物蛋白质和聚乙烯醇组成, 植物蛋白质占两物质总量的 A 份, 即 $5 \text{ 份} \leq A < 23 \text{ 份}$, 聚乙烯醇占两物质总量的 B 份, 即 $77 \text{ 份} < B \leq 95 \text{ 份}$ 。合成纤维的制造方法包括有加工成半成品的程序和半成品经整理和缩醛化而成成品的程序。加工成半成品的程序依次为: 按配比选取植物蛋白质和聚乙烯醇制成纺丝原液, 将纺丝原液进行脱泡后进入湿法纺丝机进行湿法纺丝; 由纺丝机出来的合成纤维进入凝固浴液, 经空气牵伸、湿浴牵伸、烘干、干热牵伸和热定型后制成半成品。利用该方法制得的合成纤维具有透气性好等特点, 并且生产时间较短, 提高了生产率。



WO 03/056076 A1