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(71) Applicant *(for all designated States except US)*: **ADITYA BIRLA SCIENCE & TECHNOLOGY CO. LTD.** [IN/IN]; Aditya Birla Center, 2nd Floor, C Wing, S. K. Ahire Marg, Mumbai 400 025, Maharashtra (IN).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **PREETI, Lodha** [IN/IN]; Aditya Birla Center, 2nd Floor, C Wing, S. K. Ahire Marg, Mumbai 400 025, Maharashtra (IN). **BIR, Kapoor** [IN/IN]; Aditya Birla Center, 2nd Floor, C Wing, S. K. Ahire Marg, Mumbai 400 025, Maharashtra (IN). **TUSHAR, Mahajan** [IN/IN]; Aditya Birla Center, 2nd Floor, C Wing, S. K. Ahire Marg, Mumbai 400 025, Maharashtra (IN).

(74) Agent: **DEWAN, Mohan**; R.K. Dewan & Company, Podar Chambers, S.A. Brelvi Road, Fort, Mumbai 400 001, Maharashtra (IN).

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Declarations under Rule 4.17:
— *as to the identity of the inventor (Rule 4.17(i))*
— *of inventorship (Rule 4.17(iv))*

Published:
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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
6 August 2009

(54) Title: ACRYLIC FIBER WITH MODIFIED PROPERTY AND A PROCESS FOR MAKING THEREFOR

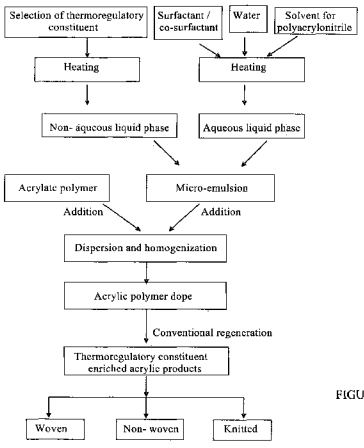

FIGURE - 1

(57) Abstract: A acrylic fiber having property modifying constituents such as thermoregulatory activity, antimicrobial activity, and perfumed and a method of making thereof is disclosed. Micro-reservoirs are formed in the fibers having thermoregulatory activity, antimicrobial constituents, and perfumed constituents.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN 2008/000423

A. CLASSIFICATION OF SUBJECT MATTER
IPC[8]: ***D01F 1/10*** (2006.01); ***D01F 6/16*** (2006.01); ***C08K 5/00*** (2006.01)
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)
IPC[8]: D01F, C08K

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 practicable, search terms used)
Wpi, Epodoc, TXT, Internet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO2003/027365A1 (OUTLAST TECHNOLOGIES INC et al.) 3 April 2003 (03.04.2003) **[0032], [0078], [0064]-[0066], [0069], [0074], Claims**	1-7, 11-19, 23-29, 33-35
X	US4756958 A (BRYANT et al.) 12 July 1988 (12.07.1988) **Claims 1-4, Column 1, Column 2 lines 55 to 59**	1-7, 11-19, 23-29, 33-35
A	WO2005/017247 A2 (OUTLAST TECHNOLOGIES INC et al.) 24 February 2005 (24.02.2005) **[0032], [0073], [0087], [0112], [0113], [0114], Claims**	1-7, 11-19, 23-29, 33-35

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"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)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"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
"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
"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 documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 May 2009 (06.05.2009)	12 June 2009 (12.06.2009)
Name and mailing address of the ISA/ AT **Austrian Patent Office** Dresdner Straße 87, A-1200 Vienna Facsimile No. +43 / 1 / 534 24 / 535	Authorized officer GÖRNER W. Telephone No. +43 / 1 / 534 24 / 558

Continuation of first sheet

Continuation No. II:

Observations where certain claims were found unsearchable

(Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

Claims Nos.: 8-10,20-22,30-32 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Claim 8-10, 20-22 and 30-32 are directed to products characterized by the use of formulations according to claims 2, 11 and 23 only and therefore are unclear in terms of the products. Claims 8-10, 20-22 and 30-32 therefore had to be excluded from the search as well as the establishment of novelty, inventiveness and industrial applicability.

Continuation No. III:

Observations where unity of invention is lacking

(Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Claim group I: Claims 1. Acrylic fiber formulation and method of preparation for fibre, yarn or fabric containing a property modifying compound.
Claim group II: Claims 2-7, 33. Acrylic fiber formulation and method of preparation for fibre, yarn or fabric containing a thermoregulatory compound.
Claim group III: Claims 11-19, 34. Acrylic fiber formulation and method of preparation for fibre, yarn or fabric containing a anti-microbial compound.
Claim group IV: Claims 23-29, 35. Acrylic fiber formulation and method of preparation for fibre, yarn or fabric containing a perfume compound.

The property modifying compound is, in general terms, the shared common essential technical features of the application. However, since claim groups II-IV are directed to (chemically) different compounds with different property modifying effects, the subject matters of claims I-IV lack unity.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN 2008/000423

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO2000/026447A1 (CIBA SC HOLDING AG et al.) 11 May 2000 (11.05.2000) **Examples, page 2, page 8 bottom paragraph ff, ** ----	1-7, 11-19, 23-29, 33-35

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/IN 2008/000423

Patent document cited in search report		Publication date	Patent family member(s)			Publication date
WO	A	2003027365			none	
US	A	4756958	JP	A	1085374	1989-03-30
			EP	A2	0306202	1989-03-08
			DE	T2	3854106T	1996-02-08
			CA	C	1315083	1993-03-30
			US	A	4756958	1988-07-12
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			DE	U1	202004021259U	2007-05-10
			US	A1	2007026228	2007-02-01
			EP	A2	1651806	2006-05-03
			WO	A2	2005017247	2005-02-24
			US	A1	2004126555	2004-07-01
WO	A	2000026447			none	