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(54) Title: SYSTEMS, DEVICES AND METHODS FOR THE FABRICATION OF POLYMERIC FIBERS

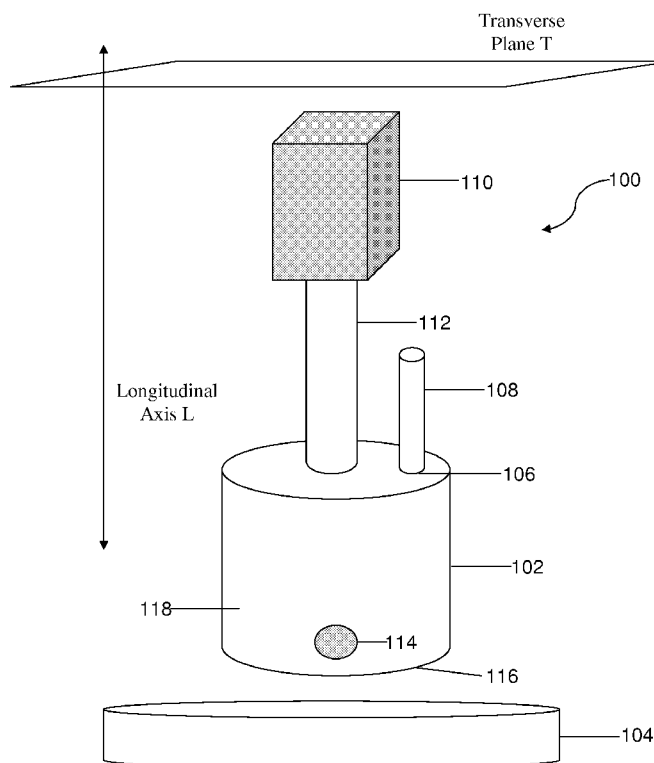


Figure 1

(57) Abstract: Exemplary embodiments provide systems, devices and methods for the fabrication of three-dimensional polymeric fibers having micron, submicron, and nanometer dimensions, as well as methods of use of the polymeric fibers.



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— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 11/61241

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B29C 47/00 (2012.01)

USPC - 264/464

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: B29C 47/00 (2012.01)

USPC: 264/464

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 264/176.1; 428/221,359 (keyword limited; search terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST(PGPB,USPT,EPAB,JPAB); Google Scholar; Google Patents

Search terms: fiber\$2 "air jet spinning" airjet ?air jet? spinning ?rotational motion? generator micron nanometer\$2 ?shear stress?
reservoir rotational motion ?linear motion? linear pitch spacing ?fiber spacing? helical orifice\$2 pore\$2

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2010/0028999 A1 (Nain) 4 February 2010 (04.02.2010) especially, para [0007], [0022], [0076]-[0079], [0086], [0098], [0099], [0116] and [0158].	1-6, 50, 53/50, 59/50 ----- 7-36, 51, 52, 53/51-52, 54 -58, 59/51-52
X --- Y	US 2004/0037813 A1 (Simpson et al.) 26 February 2004 (26.02.2004) especially, para [0010] and [0145].	37, 40, 41, 44 ----- 38, 39, 42, 43, 45-49
Y	US 2008/0023888 A1 (Brang et al.) 31 January 2008 (31.01.2008) especially, para [0026].	7-27
Y	Badrossamay et al. "Nanofiber Assembly by Rotary Jet-Spinning", Nano Lett. 2010, 10, 2257-2261, especially, page 1, col 1, para 1-2; page 2, col 1, para 2. 21 May 2010 (21.05.2010)	10-12, 17-21, 29, 30, 38, 39, 51, 52, 53/51-52, 54, 55/51-52, 56-58, 59/51- 52
Y	US 2008/0237934 A1 (Reneker et al.) 2 October 2008 (02.10.2008) especially, para [0021], [0024], [0027] and [0033].	42, 43, 45-49
Y	US 2010/0037576 A1 (Classen et al.) 18 February 2010 (18.02.2010) especially, para [0002] and [0039].	55
Y	US 2002/0182241 A1 (Borenstein et al.) 5 December 2002 (05.12.2002), especially, para [0237].	28-36



Further documents are listed in the continuation of Box C.



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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

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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

18 March 2012 (18.03.2012)

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PCT/US 11/61241

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2006/0105275 A1 (Maloney et al.) 18 May 2006 (18.05.2006) especially, para [0001].	28-36
Y	US 2009/0232874 A1 (Chu et al.) 17 September 2009 (17.09.2009) especially, para [0150].	31, 32