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(54) Title: METHOD FOR PRODUCING ACTIVE GLASS NANOPARTICLES BY LASER ABLATION

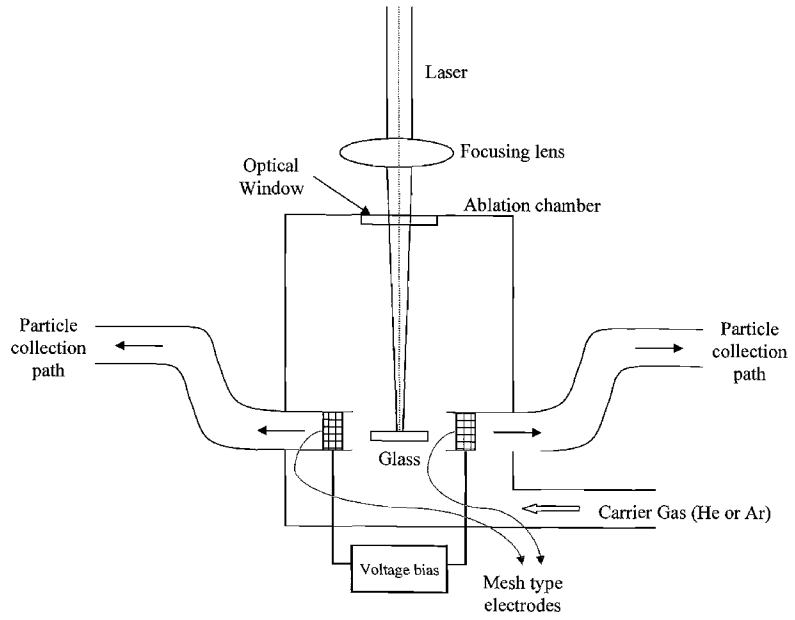

FIG. 6

(57) Abstract: A method for producing active glass nanoparticles that exhibit upconversion is described. The method employs pulsed-laser ablation of an active glass substrate using, for example, a high repetition rate ultra-short pulse duration laser under normal atmospheric conditions or in a liquid environment.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 08/52846

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - B82B 3/00 (2008.04)
USPC - 75/354
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)
USPC: 75/354

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 75/345, 346, 354; 977/840, 849, 855, 888, 889 (text search - see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(USPT,PGPB,EPAB,JPAB); Google
Search Terms: glass, nanoparticle, nano-particle, upconversion, substrate, bi2o3, laser, ablation, ablated, erbium, liquid, environment, carrier, pulse, high repetition-rate

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2006/0051522 A1 (TALTON) 09 March 2006 (09.03.2006), entire document especially Abstract; para [0009], par [0038]; Fig 2	1-31
Y	US 2004/0171076 A1 (DEJNEKA et al.) 02 September 2004 (02.09.2004), entire document especially the Abstract; para [0013]	1-31
Y	US 2003/0134424 A1 (CANHAM et al.) 17 July 2003 (17.07.2003), entire document especially paras [0200]-[0201]	4, 14, and 24
Y	US 5,648,181 A (WATANABE) 15 July 1997 (15.07.1997), entire document especially col 2, ln 57-col 4, ln 3	7-8, 17-18, and 27-28
Y	US 2001/0009250 A1 (HERMAN et al.) 26 July 2001 (26.07.2001), entire document especially the Abstract	9, 19, and 23-31
A	US 2005/0258149 A1 (GLUKHOY et al.) 24 November 2005 (24.11.2005), entire document	1-31

☐ Further documents are listed in the continuation of Box C. ☐

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"&" document member of the same patent family

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