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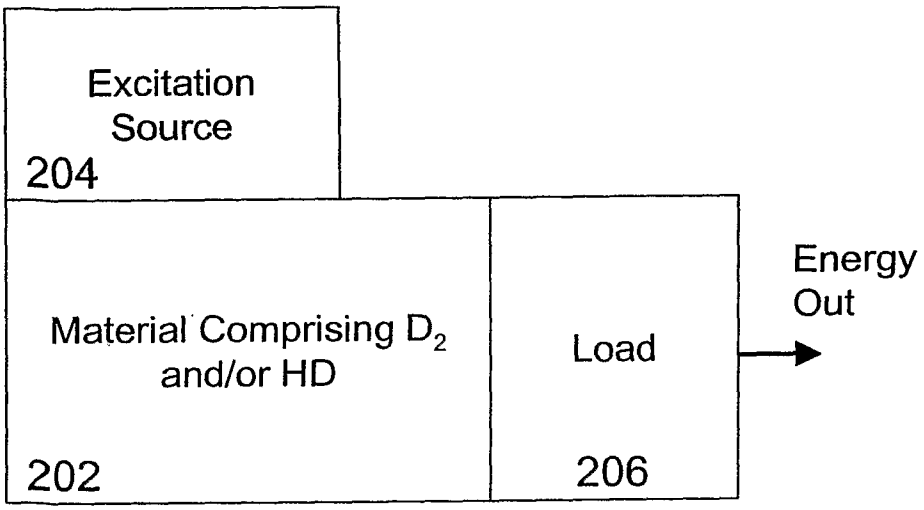
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(54) Title: METHODS AND APPARATUS FOR ENERGY CONVERSION USING MATERIALS COMPRISING MOLECULAR DEUTERIUM AND MOLECULAR HYDROGEN-DEUTERIUM



(57) Abstract: A method and apparatus are described which employ processing a host material to cause molecular deuterium (D2) and/or molecular hydrogen deuterium (HD) to be present within the host material, and processing the host material to cause at least one of He-4 and He-3 to be present within the host material. Stimulating the host material generates reactions, and energy is withdrawn from the host material.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/20743

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G21G 1/00 (2007.01)
USPC - 376/156
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) - G21G 1/00 (2007.01)
USPC - 257; 310: 376/100,107,146-148; 429

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)
USPTO EAST System (US, USPG-PUB, EPO, JPO, FPRS, DERWENT), GoogleScholar, DialogPro

C DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 91/19294 A1 (DREXLER) 12 December 1991 (12.12.1991) entire document	1, 5, 10, 11, 15, 19
X ---- Y	US 4,581,195 A (AKIMUNE) 08 April 1986 (08.04.1986) entire document	1, 3, 6, 7, 10, 11, 13, 16, 19 ---- 2, 8, 12, 18
X ---- Y	CASE, L.C. Catalytic Fusion of Deuterium into Helium-4. The Seventh International Conference on Cold Fusion 1998	1, 7, 9-11, 17, 19 ---- 4, 14
Y	US 6,146,608 A (TODD et al) 14 November 2000 (14.11.2000) column 1, lines 30-34, column 2, lines 36-43	2, 12
Y	US 5,523,438 A (SCHLOGL et al) 04 June 1996 (04.06.1996) column 5, lines 50-67	4,14
Y	US 3,857,090 A (CHICK) 24 December 1974 (24.12.1974) column 3, lines 21-26	8,18

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