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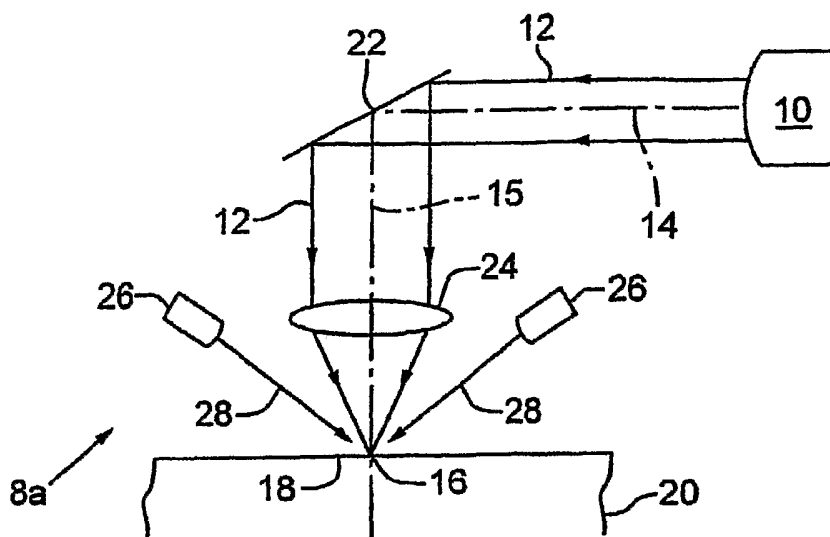
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(54) Title: LASER PROCESSING OF A LOCALLY HEATED TARGET MATERIAL



(57) Abstract: A method and laser system effect rapid removal of material from a workpiece (20) by applying heating energy in the form of a light beam (28) to a target location (16) on the workpiece to elevate its temperature while maintaining its dimensional stability. When the target portion of the workpiece is heated, a laser beam (12) is directed for incidence on the heated target location. The laser beam preferably has a processing laser output that is appropriate to effect removal of the target material from the workpiece. The combined incidence of the processing laser output and the heating energy on the target location enables the processing laser output to remove a portion of the target material at a material removal rate that is higher than the material removal rate achievable when the target material is not heated.

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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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0167581 A1 (CORDINGLEY et al.) 14 November 2002, see Abstract; paras. 0005, 0007, 0009, 0016, 0024-0025, 0029, 0036, 0057-0058, 0083-0091, 0095-0096, 0106, 0109, 0112-0113, 0115, 0117-0120, 0122, 0125-0126, 0134, 0137-0152, 0165, 0190, 0193, 0195-0196, 0198, 0200-0201, 0204, 0210, 0220-0221, 0226.	1-2, 4-5, 8, 10-23
Y	US 5,841,099 A (OWEN et al.) 24 November 1998, see Abstract.	3, 6-7, 9
Y	WO 03/002289 A1 (FAHEY et al.) 09 January 2003, see Abstract	3
Y		9

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

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