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(71) Applicant (for all designated States except US): **ELECTRO SCIENTIFIC INDUSTRIES, INC** [US/US]; 13900 NW Science Park Drive, Portland, Oregon 97229-5497 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PAILTHORP,**

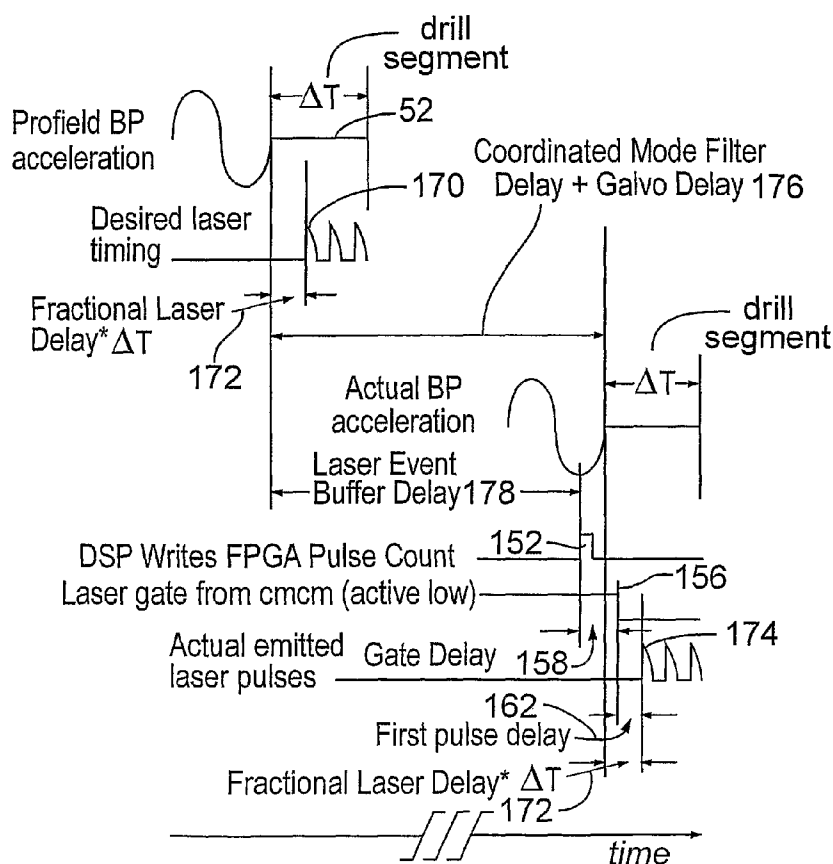
Robert M. [US/US]; 12060 NW Old Quarry Road, Portland, Oregon 97229 (US). **LEI, Weisheng** [CN/US]; 17284 NW Millbrook Street, Portland, Oregon 97229 (US). **MATSUMOTO, Hisashi** [JP/US]; 2599 NW Overlook Drive, Apt. 824, Hillsboro, Oregon 97124 (US). **SIMENSON, Glenn** [US/US]; 3925 SW 78th Avenue, Portland, Oregon 97225 (US). **WATT, David A.** [US/US]; 1438 NW 176th Place, Beaverton, Oregon 97006 (US). **UNRATH, Mark A.** [US/US]; 2840 SW 66th Avenue, Portland, Oregon 97225 (US). **JORDENS, William J.** [US/US]; 17005 NW Meadowgrass Drive, Beaverton, Oregon 97006 (US).

(74) Agent: **ANGELLO, Paul S.**; Stoel Rives LLP, 900 SW Fifth Avenue, Suite 2600, Portland, Oregon 97204-1268 (US).

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(54) Title: METHODS FOR PROCESSING HOLES BY MOVING PRECISELY TIMED LASER PULSES IN CIRCULAR AND SPIRAL TRAJECTORIES



(57) Abstract: High speed removal of material from a specimen employs a beam positioner for directing a laser beam axis along various circular (50) and spiral (70, 90, 110) laser tool patterns. A preferred method of material removal entails causing relative movement between the axis of the beam and the specimen, directing the beam axis at an entry segment acceleration and along an entry trajectory (18, 52) to an entry position (16, 54) within the specimen at which laser beam pulse emissions (58) are initiated, moving the beam axis at a circular perimeter acceleration within the specimen to remove material along a circular segment (40) of the specimen, and setting the entry segment acceleration to less than twice the circular perimeter acceleration.

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