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- (54) **Title:** APPARATUS AND METHOD FOR PATTERNING A NANOSTRUCTURE IN A TARGET MATERIAL

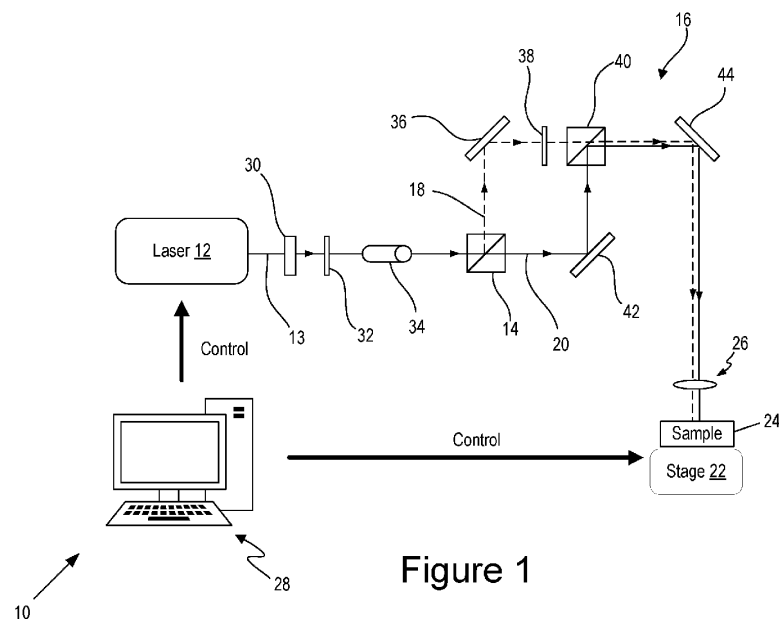


Figure 1

- (57) **Abstract:** Disclosed herein is apparatus for patterning a nanostructure in a target material, comprising: a pulsed-mode femtosecond laser; a target translation stage for moving the target material to scan pulses from the pulsed-mode femtosecond laser across the target material in a desired pattern; a beam splitter for splitting a source beam from the pulsed-mode femtosecond laser into a first beam and a second beam; and an optical arrangement for directing the first and second beams towards the target material through an objective lens; wherein the optical arrangement is configured such that pulses of the first beam and pulses of the second beam arrive at substantially the same time at the target material.

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