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- (54) Title:** TWO-PHOTON STEREOLITHOGRAPHY USING PHOTOCURABLE COMPOSITIONS

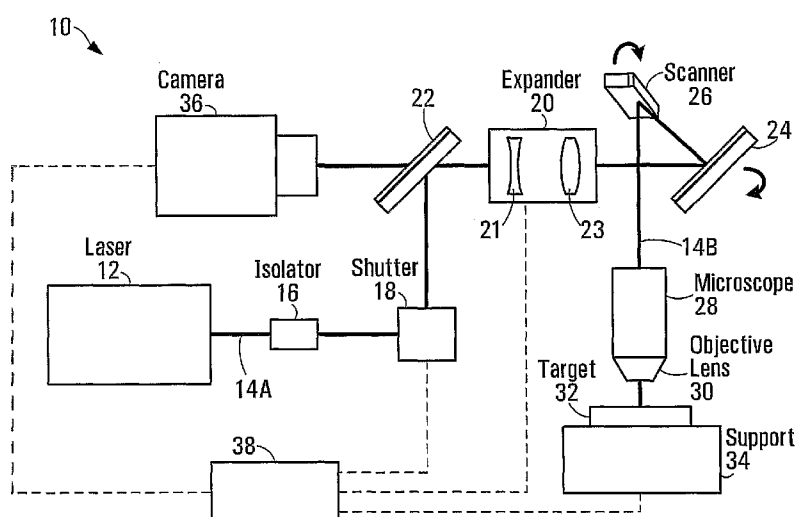


FIG. 1

- (S7) Abstract:** Two-photon stereolithography can be performed using a photocurable material comprising a poly(meth)acrylate having a (meth)acrylate functionality of at least 3 and a molecular weight (MW) of at least 650, a urethane(meth)acrylate having a (meth)acrylate functionality of 2 to 4 and a MW of 400 to 10,000, a di(meth)acrylate made from bisphenol A or bisphenol F; and a photoinitiator. A beam of light is focused to a focus region of the material to induce two-photon absorption in the focus region, and thus polymerization of the material in the focus region. The beam is scanned across said material according to a pre-selected pattern so that the beam is focused to different pre-selected regions, to induce polymerization of the material at the pre-selected regions.



Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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