

ABSTRACT

5 **INTEGRATED SYSTEM FOR MANUFACTURE OF SUB-MICRON 3D STRUCTURES USING 2-D PHOTON LITHOGRAPHY AND NANOIMPRINTING AND PROCESS THEREOF**

A system integrating 2-photon lithography and nanoimprinting to manufacture high-
10 throughput and low cost sub-micron 3D structure products is proposed. A process
integrating 2-photon lithography and nanoimprinting to manufacture high-throughput
and low cost sub-micron 3D structure products is also proposed. The invention
enables the sub-micron 3D structures to be created layer by layer. Applications
include manufacture of scaffolds for tissue engineering and medical devices such as
15 bridges for nerves and bones.

Fig. 1

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