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(71) Applicant: **BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM** [US/US]; 210 West 7th Street, Austin, TX 78701 (US).

(72) Inventors: **SREENIVASAN, Sidgata, V.**; c/o The University Of Texas at Austin, MER 1.206, 10100 Burnet Road, Bldg. 160, Austin, TX 78758-4445 (US). **PANDYA, Parth**; c/o The University Of Texas at Austin, MER 1.206, 10100 Burnet Road, Bldg. 160, Austin, TX 78758-4445 (US). **CHOI, David**; c/o The University Of Texas at Austin,

MER 1.206, 10100 Burnet Road, Bldg. 160, Austin, TX 78758-4445 (US). **EKERDT, John**; c/o The University Of Texas At Austin, 200 E. Dean Keeton Street, Stop C0400, Austin, TX 78712-1589 (US).

(74) Agent: **VOIGT, Jr., Robert, A.**; SHACKELFORD, BOWEN, MCKINLEY & NORTON, LLP, 111 Congress Avenue, Suite 1070, Austin, TX 78701 (US).

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(54) Title: NANOSHAPE PATTERNING TECHNIQUES THAT ALLOW HIGH-THROUGHPUT FABRICATION OF FUNCTIONAL NANOSTRUCTURES WITH COMPLEX GEOMETRIES ON PLANAR AND NON-PLANAR SUBSTRATES

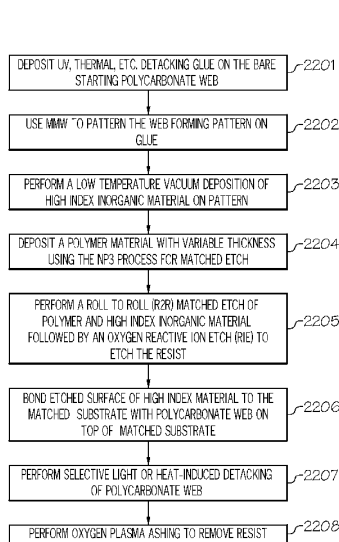


FIG. 22

(57) Abstract: A method for fabricating functional optical components. A detachable adhesive layer is deposited on an intermediate substrate. A curable liquid is deposited onto the detachable adhesive layer on the intermediate substrate. An imprint template is used to transfer patterns onto the curable liquid followed by curing thereby forming an imprinted patterned material on the intermediate substrate. A layer of functional material is deposited on the imprinted patterned material. Furthermore, a polymer layer is deposited on top of the functional material layer. A correlated etch of the polymer layer and the functional material layer is then performed thereby forming an etched functional material surface. The etched functional material surface is bonded to a final substrate. The imprinted patterned material is then detached from the intermediate substrate at the detachable adhesive layer.

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