ROLL-TO-ROLL BASED 3D PRINTING THROUGH COMPUTED AXIAL LITHOGRAPHY

Tech ID: 32286 / UC Case 2021-108-0

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	12,529,961	01/20/2026	2021-108

BRIEF DESCRIPTION

The inventor has developed systems and methods for performing continuous 3D roll-based additive manufacturing. This invention is distinct from roll-based micro/nanomanufacturing methods such as imprint lithography, gravure printing, and photo-roll lithography because it enables production of high aspect ratio reentrant features and voids in a single step that are difficult or even impossible with the existing methods.

SUGGESTED USES

The invention has applications in mechanical metamaterials, microfluidics, 3D tissue culturing, and desalination.

ADVANTAGES

The invention enables production of high aspect ratio reentrant features and voids in a single step that are difficult or even impossible with the existing roll-based micro/nanomanufacturing methods such as imprint lithography, gravure printing, and photo-roll lithography.

RELATED MATERIALS

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OTHER INFORMATION

KEYWORDS

3D Printing

CATEGORIZED AS

» **Environment**
» Other
» Remediation
» **Engineering**
» Engineering
» **Materials & Chemicals**
» Other
» **Medical**
» Other

RELATED CASES

2021-108-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Computed Axial Lithography (CAL) For 3D Additive Manufacturing
- Helical Cone Beam Computed Axial Lithography (CAL) Volumetric 3D Printing
- High Fidelity 3D Printing Through Computed Axial Lithography
- System And Method For Tomographic Fluorescence Imaging For Material Monitoring
- A New Method for Chemically Recycling Dicyclopentadiene Thermosets

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