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(54) Title: INTERFACIAL SEEDING OF CELLS AND PARTICLES ON SURFACES FOR DIAGNOSTICS AND THERAPEUTICS

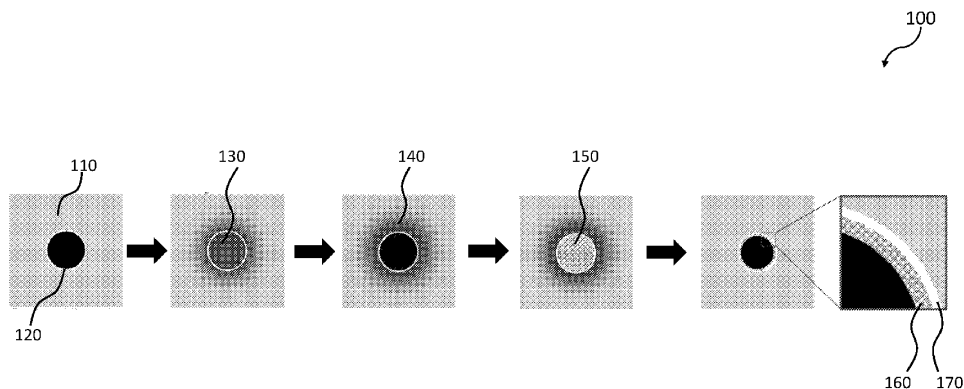


FIG. 1

(57) Abstract: Some embodiments of the disclosure disclose a process for adhering cells, beads or particles to a surface of a material. The surface may be flat or curved and can be employed in the context of patterned or 3D printed hollow channels, facilitating the recapitulation of certain aspects of physiological systems. In various embodiments, interfacial cell seeding is accomplished by locally polymerizing a carrier containing a suspension of cells along the surface with a crosslinking molecule incorporated into the target material in advance of the interfacial polymerization. Polymerization of the carrier entraps the cells into controlled configuration along the surface. The techniques disclosed herein can be utilized for tissue engineering to build engineered organs/devices suitable for implanting into living organisms.

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