

(54) Title of the invention : PROCEDURE FOR MANUFACTURING BIO-INSPIRED LIGHTWEIGHT COMPOSITE MATERIALS FOR STRUCTURAL APPLICATIONS

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(57) Abstract :

A procedure for manufacturing lightweight composite materials inspired by biological structures for various structural applications. The invention involves the study of natural systems, translation of their key characteristics into material design, utilization of both cutting-edge and traditional manufacturing techniques, and adaptation to specific applications in industries such as aerospace, automotive, and construction. The method emphasizes adaptability, sustainability, scalability, and interdisciplinary collaboration, offering a pathway to materials that are high-performing, versatile, and environmentally friendly.

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