



ChemTech

International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.13 No.01, pp 181-186, 2020

Experimental Investigation of Mechanical Behavior in 3D Printed PLA Triply Periodic Minimal Surface Structure for Orthopedics

N. Nandakumar^{1*}, T.Allwin Raja.²

¹Associate Professor, Government College of Technology, Coimbatore, India

² PG scholar, Government College of Technology, Coimbatore, India

Abstract : This project is related to the design, fabrication and characterization of scaffold structures of different structure Using Polylactic Acid (PLA) filament, the micro bone structures are manufactured by Fused Deposition Modeling (FDM). Such morphology is chosen for its good strength, high porosity leading to good nutrient and waste diffusion, and favorable mechanical properties. Load vs Displacement values are obtained by taking compression tests for each as an overall outcome of the research, microstructure with better mechanical properties to replace the damaged bone tissues is identified.

N. Nandakumar *et al* /International Journal of ChemTech Research, 2020,13(1): 181-186.

DOI= <http://dx.doi.org/10.20902/IJCTR.2019.130122>
