(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :15/08/2022

(21) Application No.202241046330 A
(43) Publication Date : 26/08/2022

(54) Title of the invention : A NOVEL REINFORCED AA2195 BASED METAL MATRIX COMPOSITE FOR SPACE APPLICATIONS

(51) International classification	:B22F0003105000, G11B0033140000, C22C0021020000, C22C0032000000, H01M0004920000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
1)Srinivasa Rao. M
Address of Applicant :Research Scholar, Department of Mechanical Engineering, AUCE(A), Andhra University, Visakhapatnam, Andhra Pradesh, India ---------- ----------
2)Dr. K. T. Balaram Padal
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Srinivasa Rao. M
Address of Applicant :Research Scholar, Department of Mechanical Engineering, AUCE(A), Andhra University, Visakhapatnam, Andhra Pradesh, India ---------- ----------
2)Dr. K. T. Balaram Padal
Address of Applicant :Professor, Department of Mechanical Engineering, AUCE(A), Andhra University, Visakhapatnam, Andhra Pradesh, India Visakhapatnam ---------- ----------

(57) Abstract :
Exemplary aspects of the present disclosure are directed toward A Novel Reinforced AA2195-based Metal Matrix Composite (MMC) and manufacturing process for Space Applications, wherein the composite is fabricated with 8% B4C, 6% graphite reinforced into 86 %AA2195 matrix. The said composition exhibits higher mechanical properties like hardness, UTS,YS and % elongation as 87.2VHN,190.74 MPa,129.33MPa and 1.15 mm respectively. Further, the composite is processed in an inert gas atmosphere using Medium Frequency Induction Furnace at a predefined temperature for a predefined timeline.

No. of Pages : 15 No. of Claims : 4