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专利信息

一种颗粒增强钛基复合材料增强体分布结构均匀性控制方法

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摘要： 本发明涉及一种颗粒增强钛基复合材料增强体分布结构均匀性控制方法，主要包括以下步骤：选配增强体和基体粉末、低能球磨、超声波洗筛、制备包套、热等静压致密化等。本发明基于大颗粒塑性基体粉末和小颗粒高硬度增强体粉末的混合粉末体系，在精准设计合理配比的条件下，采用低能球磨工艺和超声波洗筛措施，通过包套热等静压工艺制备出增强体分布结构均匀的钛基复合材料，可大幅提升颗粒增强钛基复合材料组织结构与性能的一致性，为复合材料构件服役的稳定性和可靠性提供保障。