

Research trend in the processing and application of macroporous ceramic components

ABSTRACT

Porous ceramic components with decently controlled porosity offers remarkable advantages in industrial and structural applications such as fluid filtration, thermal insulation and scaffolds for bone tissue engineering. In this review study of porous ceramic components, requisite processing techniques necessary for the development of porous ceramics with imbued microstructural model intended for a specific application. An appraisal of the fabrication was made with respect to their economic viability wherein cost effective methods having great potentials in decently controlling the pore network imbued within the host ceramic matrix was preferred over the capital intensive counterparts.

Keyword: Processing routes; Sacrificial fugitives; Replica template; Porous ceramic scaffolds