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EFFECT OF PREFORM STRUCTURE ABOUT MECHANICAL PROPERTIES OF  
CARBON/CARBON COMPOSITES

**Abstract**

In order to obtain effect of preform structure about mechanical properties of carbon/carbon composites, firstly, representative volume element is given;secondly,subprogram of periodic boundary conditions is compiled using periodic boundary conditions as theory basis;lastly, forecast research on mechanical properties of 3D, 4D and 5D carbon/carbon composites is carried out using homogenization theory and bilinear cohesive model.As a result, in the condition of preform volume percent with a constant, axial and in-plane elastic modulus of 3D preform structure is highest, shear modulus and Poisson ratio of 4D and 5D preform structure is higher.