



Processing, Characterization and Properties of Particulate Composite Materials

Guest Editors:

Prof. Dr. Tamma S. R. C. Murthy

Material Processing and
Corrosion Engineering Division,
Bhabha Atomic Research Centre,
Mumbai, India

Dr. J. K. Sonber

Material Processing and
Corrosion Engineering Division,
Bhabha Atomic Research Centre,
Mumbai, India

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Message from the Guest Editors

Particle-reinforced composites are economical and easily fabricable options for high-strength materials. In general, hard ceramic particles are reinforced into different matrices (e.g., metals, polymers) to achieve higher strength and wear resistance. Particulate-reinforced composites find applications where a high level of wear resistance is required. The type, shape, and spatial arrangement of the reinforcing phase are the key parameters determining the mechanical behavior of the composite.

Particulate composites with a polymer matrix and solid fillers are an important type of material. Generally, these materials are used as construction materials, high-performance engineering materials, or protective organic coatings. Metal matrix composites with ceramic particle reinforcements find applications in cutting tools, and ceramic matrix composites find applications in high-temperature environments.

This Special Issue will address manufacturing, characterization, properties, and applications of advanced particulate composites to illustrate this material family.

