

Additive manufacturing and other near net shape techniques			
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<b>C3.IV</b>	Summary		
	<p>Design and development of advanced materials for high performance applications ranging from medical to aerospace is one of the most challenging tasks of modern materials engineering. The wide-use of novel materials, however, depends not as much on researcher’s ability to demonstrate their intrinsic properties, but on the availability of industrial processing routes to fabricate parts with required geometries. Owing to the inability of current technology-related methods to produce parts with complicated internal structure and desired microstructures and properties, additive manufacturing (AM) techniques are becoming increasingly important. AM technologies can create tools and parts using advanced materials superior to traditional ones, including functionally graded structures. Moreover, AM has become a method by which new materials and composites can be formed. With the aim that AM will conquer a wider use in modern industry, this symposium will focus on the processing and applicability of Additive Manufacturing and other near net shape techniques for current and future applications. This symposium will included additive and additive/subtractive methods, based on printing, lamination and photonic methods and related post treatments. Special attention will be dedicated to the AM techniques which may lead to the fabrication of the bodies with enhanced surface quality and geometrical accuracy. A broad topic on applications will demonstrate the potential of these technologies in the field of ceramics, metals and composites.</p>		