

Editorial

This a second special issue of the *Journal of Materials Engineering and Performance* devoted to papers on characterization of coatings. The first issue in the series was published in the previous issue, Vol. 6, No. 4. The papers included in the issue are selected from the original presentations presented at the symposium on Surface Engineering at the 1996 ASM/TMS Materials Week. The papers were peer-reviewed by members of the JMEP International Board of Review prior to publication.

The process of coatings involves design and modification of both the surface and substrate of a component, as a system, in order to give cost effective performance enhancement of which neither is capable on its own. The concept of rough or smooth, hard or soft surfaces, and of applying various treatments or engineering techniques to achieve the required characteristics has been in existence for centuries. However, modern manufacturing methods, along with industrial philosophies, have created new needs that have led to the evolution of new surface engineering methods to fulfill them. In the wake of these needs and developments, surface engineering has become an established discipline of its own and has had a very significant technological, economic, and environmental impact on modern industry, especially in the manufacturing sector.

The effectiveness of coatings in modern times and in a cost-conscious industry can be further pushed beyond the limits of their present performance due to our current understanding of physical, chemical, and mechanical nature. Such understanding begins with a thorough characterization of coatings. The collection of papers presented in the present issue provide insight into characterization of coatings in terms of deposition techniques, applications, and materials. We gratefully acknowledge all the authors who have made efforts to prepare manuscripts based on their oral presentations. We especially thank Dr. John Ogren, editor of JMEP, for providing the opportunity to publish these papers.



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