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Elements of Materials Science and Engineering (6th Edition)

By Van Vlack, L. H.

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Elements of materials science: an introductory text for engineering students. Lawrence H. VANâ€¦ 5.0 out of 5 stars 1.Â

Developments such as the high-temperature superconductors are exciting, and the scientific data such as that obtained from tunneling electron microscopes provide new insights. During the last decade, however, the evolving structure of the academic environment probably has had a more direct impact on introductory materials courses within the engineering curricula. Whereas academic departments will continue to have specialists in ceramics, in polymers, as well as to hybrid composites. Materials science, the study of the properties of solid materials and how those properties are determined by a materialâ€™s composition and structure. It grew out of an amalgam of solid-state physics, metallurgy, and chemistry, since the rich variety of materials properties cannot be understood.Â

Professor of Chemical Engineering, University of Delaware, Newark; former Director, Center for Composite Materials. Author of Concepts of Fiber-Resin Composites. See Article History. Materials science, the study of the properties of solid materials and how those properties are determined by a materialâ€™s composition and structure. Materials Science and Engineering A provides an international medium for the publication of theoretical and experimental studies related to the load-bearing capacity of materials as influenced by their basic properties, processing history, microstructure and operating environment. Appropriate submissions to Materials Science and Engineering A should include scientific and/or engineering factors which affect the microstructure - strength relationships of materials and report the changes to mechanical behavior. Please be advised that the Aims and Scope for the journal has recently been updated.