Journal of Engineering Materials and Technology

Preface

This special issue of the Journal of Engineering Materials and Technology contains 15 papers delivered at the Symposium on Time-Dependent Behaviors of PMCs (Polymer Matrix Composites) and Polymers, held in Anaheim, California as part of the 2004 ASME International Mechanical Engineering Congress and Exposition. A total of 21 talks were delivered in five sessions, which spanned many aspects of the time-dependent behaviors of these materials.

Strictly speaking, the term "time-dependent" is meant to indicate behaviors in which time is explicitly required as a variable, that is, behaviors that are inelastic and rate-dependent and/or involve transport processes with fields varying significantly over the time domain of the problem of interest. That said, other materials behaviors displaying some but not all of these characteristics are also of interest, due to their close relationships to the described behaviors. Examples are time-independent plasticity and damage, and nonlinear elasticity, where the time variable can be replaced by a deformation or loading variable without consequence. A limited number of the included papers meet these latter criteria.

It has been the privilege of the guest editors to organize this special issue, and we thank all the participants and reviewers for their contributions and the Journal of Engineering Materials and Technology for the opportunity to publish it.

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Special Issue Guest Editors

