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Editors: Soumendra N. Basu, James E. Krzanowski, Joerg Patscheider and Yury Gogotsi

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**MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 843**

Surface Engineering 2004— Fundamentals and Applications

Symposium held November 30–December 2, 2004, Boston, Massachusetts, U.S.A.

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PREFACE

This volume contains papers presented at Symposium T, “Surface Engineering 2004—Fundamentals and Applications,” held November 30–December 2 at the 2004 MRS Fall Meeting in Boston, Massachusetts. This symposium was the third of its kind devoted to this subject.

This symposium covered a broad range of topics related to surface engineering, surface modification and surface mechanics and presented a broad, multidisciplinary program promoting the interaction of scientists and engineers from many fields with the central goal of modifying and enhancing engineered surfaces. Topics included the effects of coating nanostructure on hardness; new developments in super-low friction coatings; control of stresses during surface modification; modification of surfaces and coatings using ion beams and lasers; and new methods for synthesizing and characterizing engineered surfaces and coatings.

The symposium featured six oral sessions, including a joint session with Symposium R, “Fundamentals of Nanoindentation and Nanotribology III,” as well as a poster session. These sessions included more than 60 oral presentations and over 40 poster presentations and were attended by over three hundred participants. The symposium also featured ten invited presentations by distinguished scientists.

The symposium co-organizers would like to gratefully acknowledge Balzers AG, Renishaw Incorporated and the Surface Engineering and Material Design Program of the U.S. National Science Foundation for financial support.

Soumendra N. Basu
James E. Krzanowski
Joerg Patscheider
Yury Gogotsi

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