Medical Device Materials IV

Proceedings of the Materials and Processes for Medical Devices Conference 2007 September 23–25, 2007 Palm Desert, California, USA

> *Edited by* Dr. Jeremy Gilbert

> > Sponsored by



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First printing, November 2008

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ISBN-13: 978-0-87170-861-8 ISBN: 0-87170-861-2 SAN: 204-7586

ASM International[®] Materials Park, OH 44073-0002 www.asminternational.org

Printed in the United States of America

Multiple copy reprints of individual articles are available from Technical Department, ASM International.

PREFACE

This publication, *Materials and Processes for Medical Devices*, is a compilation of research that was presented at the ASM International sponsored conference of the same name held in Palm Desert, California, September 23–25, 2007.

This was the 4th MPMD conference presented by ASM to focus on the materials used in medical devices. This conference brought the perspectives of industrial, academic, national laboratory and clinical researchers together, seeking to develop and/or understand materials for medical devices. This focus on real applications, real devices and real materials issues for medical devices, has set ASM International apart from other materials organizations in the realm of biomaterials. The focus areas of this conference, including processing, structure and properties of biomaterials, surfaces of biomaterials, degradation, wear, fracture and fatigue, etc., are all critical elements of any medical device design and will continue to be the focus of research into new technologies and materials.

The ongoing success and growth of this conference and others where ASM is focused on medical materials demonstrates the importance of providing venues for interactions among industrial device designers, clinicians, academic translational researchers and others to promote and advance the development of new medical devices, technologies, and biomaterials.

ASM International, with the MPMD conference and its newly established materials database for medical devices, has now clearly established itself as a significant force in the biomaterials and medical devices arena. Going forward the MPMD conference will continue to offer THE place for learning about and contributing to materials for medical devices.

I would like to thank the organizing committee for their diligent and dedicated assistance in promoting and developing this conference and in preparing this publication. I would also like to thank ASM staff for doing an outstanding job at all stages of this process in assisting and coordinating the conference and these proceedings. This conference was a success, in part, because of the sponsors and their efforts, and because of all of the contributors who presented their work. It is my firm belief that the MPMD conference will see many more successes into the future as we continue to focus on medical devices and the materials from which they are made.

Dr. Jeremy Gilbert

Chair, MPMD Organizing Committee Professor, Associate Dean for Research and Doctoral Programs, L.C. Smith College of Engineering and Computer Science

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ASM International, Materials Park, Ohio, USA www.asminternational.org

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Publication title	Product code
Medical Device Materials IV	05219Z

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