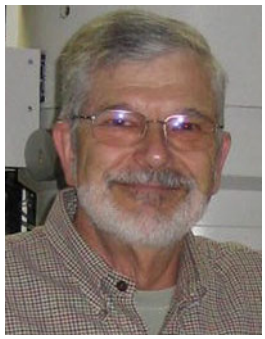
JMEPEG (2011) 20:487–488
DOI: 10.1007/s11665-011-9961-9

1059-9495/$19.00

EDITORIAL

In fondest memory of Dr. Rolf Gotthardt, Friend and Colleague, 1941–2011

David S. Grummon



M.R. Mitchell

Matthias Mertmann

Shape Memory and Superelastic Technologies (SMST) returned to its "home-base" in 2010, with attendees gathering once again at the beautiful Asilomar Conference Center in Pacific Grove. The International Conference on Shape Memory and Superelastic Technologies—SMST 2010—was sponsored by SMST, the International Organization on Shape Memory and Superelastic Technologies, an affiliate society of ASM International. Like previous SMST conferences, SMST 2010 was dedicated to the presentations on technical and scientific developments in the area of shape memory and superelastic alloys, with a particular emphasis on engineering problems and applications.

Asilomar hosted the first SMST conference in 1994 and was chosen again in 1997, 2000, 2003, and 2006, with meetings also held in Belgium (1994), China (2001), Germany (2004), Japan (2007), and Italy (2008). We all look forward to SMST 2011 in Hong Kong. Peer-reviewed proceedings for these conferences have been regularly published in hard-bound volumes such as this one. Following the practice initiated at SMST 2008 in Italy, this year's proceedings papers will also appear as peer-reviewed archival papers in a special edition of the *Journal of Engineering Materials and Performance* (JMEP, Springer). As a bonus for the attendees of the 2010 conference, a volume of *SMST-2010 Extended Abstracts* was provided at the opening of the meeting to provide an up-to-the-minute snapshot of the latest developments.

The use of NiTi alloys for prosthetic, orthotic, and vascular devices continues to be one of the most commercially significant application areas for NiTi alloys, and amply justifies our traditional emphasis on the superelastic materials and biomedical applications. In addition, the 2010 conference recognized a growing interest in new actuator applications, as well as emerging design concepts in aerospace, energy, and transportation, all calling for robust high-temperature SMAs. Other important topic areas to highlight include

fatigue life prediction and design for fatigue resistance, new methods for microstructural and surface defect analysis, new brazing, and welding strategies, and low-density high-compliance porous alloys. With regard to actuators and HTSMAs, a number of significant contributions were made by the scientists from NASA, together with the members of the Consortium for the Advancement of Shape Memory Alloy Research and Technology (CASMART).

The conference program included over 190 total presentations, with 110 oral talks and eighty excellent posters. As has been done previously, a pre-conference *Workshop on Shape Memory Alloys* was offered, which drew a crowd of more than a hundred. On Tuesday, May 18th 2010, we all enjoyed a significantly expanded Product Exhibition (including R&D presenters), which was held again at the Fred Farr Forum.

We gratefully acknowledge the members of the organizing and advisory committees, as well as the sponsors, the session chairs, the event chairs, and in particular the dedicated ASM staff members that worked so hard to make the conference look easy. The success of SMST 2010 was only possible through their energy, their alertness and competence, and their dedicated hard work.

David S. Grummon
SMST 2010 Chairman
Department of Chemical Engineering and Materials Science
Michigan State University
East Lansing, MI
e-mail: grummon@egr.msu.edu

M.R. Mitchell
SMST 2010 Co-Chairman, Organization President
Mechanical Engineering Department
Northern Arizona University
Flagstaff, AZ 98124-2207
e-mail: Michael.R.Mitchell@nau.edu

Matthias Mertmann
SMST 2011 Vice President
Memry, Gmbh
Weil am Rhein, Germany
e-mail: matthias_mertmann@memry.com