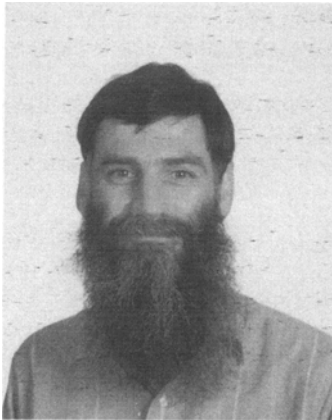


# Editorial

## The significance of THERMAL SPRAY AWARDS



The Thermal Spray Society (previously the Thermal Spray Division) of ASM International has, since its inception, appointed an Awards Committee so that excellent work of thermal sprayers could be acknowledged. Prior to the International meeting in Orlando (May - June 1992) the awards were based on the oral presentation at the NTSC's and judged according to the audience response to standard session questionnaires.

From 1992, for the three most recent conferences, the judging has been based on only the written submission for the conference proceedings. The judging of the papers in every year has been performed by 30 panelists from the North American thermal spray community. The awards process would not exist but for the unselfish efforts of these panelists and they certainly deserve recognition for the high credibility of the awards.

Each panelist was forwarded a package of about 10 to 15 papers which were of similar subject content. Each paper was submitted to 3 panelists so that some averaging procedure could be implemented. (Of course, no author who may also have been on the judging panel, voted on their own paper.) The Chairman of the awards committee, who did not judge any papers, performed various normalizing procedures to account for statistical variations among judges and therefore eliminate any potential bias. The papers at this stage were referenced by a number to de-person-

alize the mechanism of establishing a ranking for conferring awards.

The judges were asked to rank their group of papers in order of merit. The guidelines for this ranking were to consider; (i) the novelty and originality of the subject, (ii) the presentation format and attention to details such as figures and referencing, (iii) the scientific and engineering merit of the work (i.e., does this work open up new applications or enable better understanding of thermal spray processes and coatings?); and (iv) a discretionary component to account for any of the judge's special interests.

In 1994 some 6% of the papers were judged as deserving special merit. The four "NTSC'94 Best Paper Awards" are considered as premier contributions to thermal spray technology and are listed below.

- T. Eckardt, W. Mallener, and D. Stover, "Reactive Plasma Spraying of Silicon in Controlled Nitrogen Atmosphere."
- J-G. Legoux and S. Dallaire, "Copper-Ceramic Composite Coatings for Steel Strip Casting."
- V. Kadyrov, Y. Evdokimenko and V. Kise, "Calculation of the Limiting Parameters for Oxide Ceramic Particles During HVOF Spraying."
- R.A. Miller, W.J. Brindley, J.G. Goedjen, R. Tiwari, D. Mess, "The Effect of Silica on the Cyclic Life of a Zirconia-Yttria Thermal Barrier Coating."

"Certificates of Merit" for outstanding work were presented to:

- D.J. Greving, E.F. Rybicki, and J.R. Shadley, "Residual Stress Evaluations of Thermal Spray Coatings by a Modified Layer Removal Method."
- S.E Hartfield-Wunsch and S.C. Tung, "The Effect of Microstructure on the Wear Behavior of Thermal Spray Coatings."
- X.L. Jiang, R. Tiwari, F. Gizhofer, and M.I. Boulos, "Induction Plasma Reactive Deposition of Tungsten and Titanium Carbide."
- M. Vardelle, A. Vardelle, A.C. Leger, and P. Fauchais, "Dynamics of Splat Formation and Solidification in Thermal Spraying Processes."
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Each year the Journal of Thermal Spray Technology recognizes the best paper published during the year. The **1993 Best Paper Award for JTST** was presented to M. Vardelle, A. Vardelle, and P. Fauchais for their paper entitled "Spray Parameters and Particle Behavior Relationships During Plasma Spraying."

The **Thermal Spray Hall of Fame** was established in 1993 by the Thermal Spray Division of ASM International. Induction into the Hall of Fame is a means of recognizing and honoring outstanding leaders who have made significant achievements and contri-

butions to the science, technology, practice, education, management, and advancement of thermal spraying. Again, a panel of 6 eminent thermal sprayers, representing practitioners, engineers, scientists, and managers in the thermal spray arena were asked to evaluate the nominating files of candidates. The first class of inductees, presented at NTSC'94 in Boston, include:

- William E. Ballard (deceased), "For pioneering and unparalleled efforts in cataloging the development, growth and commercialization of the thermal spray industry in his anthology *Metal Spraying and the Flame Deposition of Ceramics and Plastics*."
- Max Ulrich Schoop (deceased), "For landmark contributions as the inventor of the thermal spray process and the subsequent refinement and expansion of thermal spray technology to provide the foundation for the modern thermal spray industry."
- Herbert Herman, Leading Professor, State University of New York at Stony Brook, Stony Brook, New York. "For outstanding contributions in thermal spray education, expanding the thermal spray technology science base and developing and advancing coating characterization techniques."
- Daniel R. Marantz, President, Flame-Spray Industries, Inc., Stony Brook, New York. "For pioneering work in the development of thermal spray devices including the single wire plasma gun, and playing a central role in introducing thermal spray technology to industry."
- Merie L. Thorpe, President, Thorpe Thermal Technologies Inc., Concord, New Hampshire. "For pioneering contributions to the successful commercialization of important thermal spray process and materials technologies; development of new applications and markets; and a strong entrepreneurial spirit which has contributed significantly to the growth of the thermal spray industry."

The question that begs to be asked is "Are there too many awards?" The facts are that the total number of thermal spray awards has decreased every year over the past 4 years; for example there were 16 awards in 1993 compared with 9 in 1994 in the same two categories in an expanded field of potential contributions. Thus, it is becoming quite prestigious to be honored in this fashion! The purpose of these awards is to not only confer "official peer-reviewed honor" upon the awardee; but to nurture and encourage truly excellent contributions to the world of thermal spray. It is also important to note that acknowledgment, *per se*, is often quite valuable from the perspective of the professional career of the awardees since unbiased peer review, outside their own organization, lends support to their research and engineering accomplishments.

The Chairman of the Awards Committee (C.C.Berndt, Stony Brook) of the Thermal Spray Society (TSS) recognizes that there is further room for improvement. For example, is it possible (or even desirable) for the TSS to replicate in some fashion or form the **Student Scholarships** that have been instituted by the International Thermal Spray Association; or is there a need to have a **Met-allographic Competition** as there has been occasionally in the past?

The Awards Committee of the TSS is very open to any suggestions or comments concerning their rationale or procedures and invite such contributions to be sent to C.C.Berndt of Stony Brook for discussion.

**C.C. Berndt**

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