

Thermal Spray Society
An Affiliate Society of ASM International

THERMAL SPRAY HALL OF FAME

The Thermal Spray Hall of Fame was established in 1993 to recognize the many outstanding leaders who have made significant contributions to the science, practice, education, management and advancement of thermal spray.

Nominations for the Class of Inductees into the TSS Thermal Spray Hall of Fame are accepted until 30 September of the preceding year. Candidates for the Thermal Spray Hall of Fame may be proposed by any five members of the Thermal Spray Society or any of the working groups, committees, subcommittees or other duly recognized bodies within the Thermal Spray Society.

2026 Class of Inductees

Prof. Hanlin Liao Ph.D.

For building bridges between research and industry, as well as between Europe and Asia, in the field of cold spray and thermal spray coatings.

2025 Class of Inductees

Dr. Ann Bolcavage, FASM

Ann is globally recognized for technical innovation research in thermal spray that has influenced and changed the performance of coatings and how they are used in aerospace applications.

Mr. Charles M. Kay, FASM

Mr. Charles Kay, FASM, for focus and dedication to progressing thermal spray and cold spray commercial applications. TSS Past President and retired President of Hannecard Roller Coatings Inc. (formerly ASB Industries Inc.), recognized a worldwide network that can work together to combine leadership in research, technology, materials and industry to promote innovation for functional applications.

2024 Class of Inductees

Mr. Nelso Antolotti

In 1973, Nelso founded Flametal, revolutionizing thermal spray in Italy and Europe. As head of Lincotek, he drives advancements in coating at global level, energizing biomedical, gas turbine and aerospace industry.

Professor Michael K. A. Khor

For contributions to thermal spray technology in the processing of composite powders for TBC and biomaterials applications, post-spray processing, and the bibliometrics analysis of global trends.

Dr. Daniel Sordelet, FASM

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For sustained, innovative development of surface engineering materials and processes and successfully transferring them from laboratory-scale ideas to full production industrial practices.

2023 Class of Inductees

Michel Jeandin, Ensm Paris, France

For original and sustained contributions to thermal spray, primarily cold spray through the understanding of coating buildup and particle interface phenomena under shock conditions.

Shrikant V. Joshi, University West, Sweden

For sustained R&D activities and pioneering efforts in thermal spray education and technology demonstration, and contributing to the global thermal spray knowledge base.

2022 Class of Inductees

Heiko Gruner, Medicoat AG, retired

Heiko Gruner has contributed to sustained innovations in thermal spray through four decades of dedicated research, development, commercialization and multimillion-dollar world-wide market deployment of vacuum plasma sprayed medical implant coatings.

Neil Matthews, RUAG Australia

Leadership in the adoption of advanced thermal spray manufacturing in the area of "Aerospace Component Repair Technologies" that has led to efficiency and economic outcomes.

Subramaniam Rangaswamy, Independent Business Consultant, retired

For exceptional service to the TS industry through innovations in Ternary TBC's, HT Abradables, Self-Bonding Composites, Micro-crystalline alloys and unique Attrition Milled powder manufacturing processes. Also, for educating, training, and mentoring many TS professionals for nearly 40 years.

2021 Class of Inductees

Robert H. Unger, Polymet Corporation

For enduring commitment and sustained service to the thermal spray community together with critical technical contributions fostering the development and acceptance of twin-wire arc and liquid-fuel HVOF thermal spray processes.

Kesong Zhou, Guangdong Institute of New Materials

Prof. ZHOU has promoted the development and dissemination of thermal spray technology and its industrial applications within China and around the world.

2020 Class of Inductees

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Yuk-chiu Lau, GE Power

For pioneering work in the development of advanced thermal sprayed thermal barrier coatings that includes dense-vertically cracked TBCs and environmental barrier coatings.

Basil Marple, FASM, National Research Council of Canada

For significant scientific impact and mentoring in thermal spray R&D and for leadership in disseminating technical information to the thermal spray community.

Robert Miller, Vantage Partners LLC (NASA GRC Contractor)

For original and sustained contributions to the field of aero thermal barrier coatings that has stimulated and led this R&D into commercial realization.

2019 Class of Inductees

Chang-Jiu Li, FASM, Xi'an Jiatong University

For significant contributions to the global thermal spray community in the understanding of coating formation, microstructural features and property relationships that permit high performance applications of thermal spray processes.

Javad Mostaghimi, FASM, University of Toronto

For pioneering the modelling of impact, spreading, splashing, and solidification of molten droplets in thermal spray that represent the most basic formation processes of coatings.

Richard Schmid, Oerlikon Surface Solutions

For innovative technical contributions to abradable and tribological coatings, for development and commercialization of cascade plasma technologies, plasma spray PVD and leadership in thermal spray research, education and applications.

2018 Class of Inductees

Masahiro Fukumoto, FASM, Toyohashi University of Technology

For significant contributions to the development of thermal spray technology through innovative research, published papers, and leadership in TSS and Asian thermal spray societies.

William J. Lenling, FASM, Thermal Spray Technologies

For sustained achievements in entrepreneurial advances of thermal spray processes and proven leadership in establishing state-of-the-art production processes and high value in-situ quality monitoring manufacturing practices.

2017 Class of Inductees

Robert P. Vassen, Forschungszentrum Julich GmbH

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For thermal spray developments for applications in solid oxide fuel cell materials and thermal barrier coatings for gas turbines, as well as mentoring and training of highly skilled professionals.

Petri M. J. Vuoristo, Tampere University of Technology

For long term contributions for the advancement of TS and related deposition technologies through worldwide education and practice.

2016 Class of Inductees

Chuanxian Ding, Shanghai Institute of Ceramics, Chinese Academy of Sciences

For pioneering the science and technology of thermal spraying in China especially in the area of emerging applications of coatings and for mentoring students and young professionals.

Seiki Kuroda, FASM, National Institute of Materials Science

For pioneering research on residual stress in thermal spray coatings, development of in-situ beam curvature techniques, in-flight particle diagnostics and warm spray technology.

Thomas A. Taylor, FASM, Praxair Surface Technology

For significant contributions to new and novel thermal barrier coating architectures and rub tolerant and MCrAlY coatings for gas and turbine engine applications.

Armelle Vardelle, FASM, University of Limoges

For globally recognized contributions to understanding the role of plasma generation and plasma-particle interaction on coatings microstructure.

2015 Class of Inductees

Christian Coddet, LERMPS, University of Technology of Belfort-Montbeliard

For developing innovative thermal spray techniques and applications and for developing international collaboration programs dedicated to thermal spray research in developing countries.

Lech Pawlowski, University of Limoges, European Centre de la Céramique

For sustained and innovative thermal spray research and development and significant contributions to the fundamental and technical advancement of thermal spraying.

Sanjay Sampath, FASM, Center for Thermal Spray Research, State University of New York

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For innovative interdisciplinary thermal spray research bridging the gap between fundamental science and industrial practice through better understanding of coating properties and the development of advanced diagnostic tools.

2014 Class of Inductees

Mitchell R. Dorfman, FASM, Sulzer Metco US

For innovations in thermal spray turbine engine coatings, and for exceptional contributions to the thermal spray industry and technical community, and for dedicated mentoring of next generation thermal sprayers.

2013 Class of Inductees

M. Brad Beardsley, Caterpillar, Inc. †

For enduring commitment and success in establishing worldwide utilization of thermal spray processes and materials for sustainable, green manufacturing processes ranging from remanufacturing to Cr-plate replacement.

Christian Moreau, FASM, National Research Council Canada

For advancing thermal spray science and technology through the development of innovative scientific and control diagnostics, advanced coating materials systems, and for leadership in thermal spray communications.

2012 Class of Inductees

Frank J. Hermanek, FASM, FJH and Associates (previously Praxair Thermal Spray Product)

For substantial contributions in thermal spray coatings, materials and technology developments and for acting as a mentor and teacher to new upcoming members to the thermal spray industry.

Elliott R. Sampson, TAF/Praxair Surface Technologies †

For significant contributions to the development of twin-wire arc spray technology and for providing leadership in promoting thermal spray technology to aerospace markets and in thermal spray education.

2011 Class of Inductees

Peter Heinrich, FASM, Linde Gas AG †

For exceptional contributions to bring innovative thermal spray technology to the market place and for tireless efforts in unifying the global thermal spray community.

Akira Ohmori, Osaka University

For significant contributions to the development of innovative thermal spray technology and for providing leadership to the thermal spray community in Asia

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Pacific region.

Detlev H. H. Stöver, Forschungszentrum Jülich GmbH

For significant contributions in the pioneering development of thermal spray and material technologies for various energy systems and for outstanding contributions in thermal spray education.

2010 Class of Inductees

Klaus Dieter Landes, Universtat der Bundeswehr Muenchen

For outstanding achievements in plasma source development and innovative designs paired with carefully executed diagnostic experimentation that led to significant improvements in plasma spray coating production.

Andrew Nicoll, FASM

For exemplary service to the thermal spray community through research, industrial strategic developments, and Society involvement at many levels.

2009 Class of Inductees

Daryl E. Crawmer, FASM, Thermal Spray Technologies, Inc.

For advancing thermal spray technology through numerous innovations in equipment and process design, and for being an invaluable source of information and advice to the thermal spray community.

Akira Nakahira, Tocalo Co., Ltd.

For the development and industrialization of innovative thermal spray coatings, fostering one of the world's largest thermal spray job shop companies, and for the advancement of thermal spray as a fundamental technology.

Anatolii N. Papyrin, Cold Spray Technology, LLC

For outstanding scientific and technological contributions to the research and development as well as the commercialization of the cold spray process.

2008 Class of Inductees

Robert M. Gage, Union Carbide Corporation †

For the initial invention and development of transferred and non-transferred arc plasma spray torches and coatings using powder or liquid feed stock, and seminal developments in the use of gases to effect reactions during spraying.

Albert Kay, FASM, ASB Industries, Inc.

For excellence in recognizing and commercializing emerging technologies such as HVOF and cold spray and for his proactive role in ASM and TSS committees leading to the spread of thermal spray in many industries.

2007 Class of Inductee

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Christopher C. Berndt, FASM, James Cook University

For outstanding contributions to the science and technology of thermal spray and for leadership in promoting thermal spray technology.

2006 Class of Inductees

Atsushi Hasui, Keio University

Professor Hasui has contributed immensely to the development of thermal spray technology through his pioneering and innovative research, his books, and his leadership in the Japanese Thermal Spray Society and in establishing industry standards.

Mark Smith, FASM, Sandia National Laboratories

For significant and sustained technical contributions to advance the science and technology of thermal spray, especially process diagnostics and modeling, and for more than twenty years of service in professional society leadership as an active proponent of thermal spray.

Donald Yenni, FASM, Union Carbide Corporation †

For the invention of wire and powder fed plasma spray torches and deposition processes and the development of many ancillary thermal spray machines and thermal spray applications.

2005 Class of Inductee

Heinrich Kreye, University of Federal Armed Forces

For leading the way to introduce HVOF spraying and later cold spraying to Europe. In both, his internationally highly recognized research provided a comprehensive understanding of the process and established an excellent basis for industrial applications. In collaboration with industries and as one of the organizers of the six 'HVOF colloquia,' he substantially enhanced the transfer thermal spray know-how to final users.

2004 Class of Inductees

Fred W. Gartner, Jr., F. W. Gartner Thermal Spray Company †

A pioneer and tireless ambassador for the Thermal Spray Industry. Devoted to the advancement, understanding and appreciation of thermal spray coatings their application and usage.

Anthony J. Rotolico, Englehard Surface Technology

Innovator in the development of Thermal Spray equipment, their manufacture and introduction to aircraft, automotive and industrial/production applications.

Joachim V. Heberlein, FASM, University of Minnesota †

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For sustained long-term Research and Development efforts relative to fundamental plasma arc phenomena that have contributed to advance Thermal Spray application techniques.

2003 Class of Inductees

Maher I. Boulos, University of Sherbrooke

Technologist, educator and pioneer: for his work relating to induction plasmas especially in the areas of flow modeling; torch design; plasma jet and particle characterization; spheroidization and particle syntheses; and, nano particle production.

Douglas H. Harris, APS Materials Incorporated †

Innovator and research contributor to the art and science of thermal spraying notably in the fields of biocompatible and corrosion resistant coatings.

2002 Class of Inductees

Hans-Dieter Steffens, University of Dortmund

Educator and innovator. A principal contributor to the scientific field of arc and metal spray technology; to international standards and guidelines; and to the founding of the Institute of Materials Technology at the University of Dortmund and introducing Coating Technology to Materials Studies.

Robert C. Tucker, Jr. FASM, The Tucker Group, LLC

For his scientific and technical leadership in the field of thermal spray technology and championing the cause of student growth/involvement. As Thermal Spray Society president his leadership fostered openness, growth and contact with other spray agencies - accomplishments unrivalled.

René David Wasserman, Eutectic+Castolin †

A visionary who recognized the waste created by manufacturing anomalies and their impact on costs and often times their environmental surroundings. Pioneered preventive maintenance and repair techniques through the implementation of welding, brazing and thermal spray processing. His entrepreneurial acumen enabled Eutectic+Castolin to become a leader in offering anti-wear solutions.

2001 Class of Inductees

Vernon A. Cook, Metallizing Company of America (Mogul) †

Entrepreneur, pioneer and early leader in developing and fostering the use of the thermal spray processes in the United States. Contributed to the marketing of combustion wire and powder spraying. Initiated the production of electric arc spray equipment in the Americas. Instrumental in the early development of the HVOF process.

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Ferdinand J. Dittrich, Sulzer Metco (US) Inc. †

Research scientist and innovator. The discoverer of reactive nickel aluminum composites. Through his efforts these products, when thermally sprayed, demonstrated 'self-bonding' characteristics when applied onto metallic surfaces thereby offering an anchorage for less adherent materials. As such, these discoveries have become the cornerstone upon which other coating and coating systems have come to depend on for both reliability and performance.

Hiroshi F. Nakahira, TOCALO Co., LTD †

For his business and technical leadership. His innovative approach in spray technology, the development of spray products and their marketing in Japan and throughout the world. For his encouragement and support for student training, and of the Japan Thermal Spraying Association and the Japan Thermal Spraying Society.

2000 Class of Inductee

No inductees awarded this year.

1999 Class of Inductee

Erich F. Lugscheider, FASM, Aachen University

Professor Lugscheider developed patents successfully and marketed innovations based on R & D results he found. As an expert, he is able to initiate worldwide technology transfers and new application technology applications. Moreover, he has engaged in the worldwide organization of the United Thermal Spray Conference. He has also made a tremendous contribution to thermal spray education and teaching and his institute can look back at a large number of well qualified students who are in the thermal spray industry.

1998 Class of Inductees

Pierre Léon Fauchais, FASM, University of Limoges

Professor Fauchais has a very significant place in the modern history of thermal spray because of his long term excellent research into fundamental understanding of thermal plasma behavior, plasma-particle interactions and coating formation.

Moses A. Levinstein, General Electric Aircraft Engine †

While at General Electric, Mr. Levinstein was obsessed with promoting thermal spraying both within GE and the United States. He introduced sprayed coatings into General Electric turbines. As American Welding Society C2 Chairman, he changed the process name to 'Thermal Spraying', and brought America its first International Thermal Spray Conference.

Herbert† and Marlies Nussbaum, Plasma-Technik

For their vision and innovations in the development of Plasma Spray equipment

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(F4 gun and system computer control) and full scale integrated production spray systems.

1997 Class of Inductees

Robert E. Mahood, St. Louis Metallizing, Inc. †

For his leadership in the Metallizing Service Contractors and thermal spray committees of ASM International and the American Welding Society, which was instrumental in the growth of the ASM Thermal Spray Society, and which has brought him universal respect from his peers. Also, for his constant dedication to and support of groups that continue to champion thermal spraying throughout the world.

Erich Muehlberger, Sulzer Metco, Inc.

For serving as a mentor and advisor to many leaders of the thermal spray industry, including founders of the ASM Thermal Spray Society; for his entrepreneurship and vision; and for inventing the low-pressure plasma spray known as LPPS or Vacuum Plasma Spray.

Jack Ritchie, FASM, Bender Machine, Inc.

For providing dynamic leadership in acting as an ambassador for the expansion of thermal spray technology around the world, especially in the United States, Europe, and Japan. Also, for his achievements over more than four decades with Bender Machine, Inc. and his contributions to the International Thermal Spray Association, National Thermal Spray Conferences, and other leading thermal spray organizations worldwide.

1996 Class of Inductees

Rea A. Axline, Metco, Inc. †

Founder of the Metallizing Engineering Company, Inc. (Metco). Pioneered the Thermal Spray industry worldwide. Provided a nurturing corporate environment that developed engineers / specialists who labored throughout the Americas, Asia and Europe

James A. Browning, DRACO, Inc.

Inventor of numerous and unique Thermal Spray application devices including: High Velocity Oxygen Fuel Gun, High Power Plasma Generator and other mainstays of the thermal spray industry.

Reginald McPherson, Monash University †

Provided outstanding contributions in thermal spray research and graduate education

George H. Smith, Union Carbide Corporation †

Champion of advanced thermal spray devices, inventions, coating applications and industrial research

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1995 Class of Inductees

Jack Kittle, H.C. Starck, Inc. †

For devotion of his professional life to the teaching and development of thermal spray technology. He was instrumental in laying a solid foundation for the Thermal Spray Society; especially in industrial interactions through the Annual Exhibition.

Walter B. Meyer, St. Louis Metallizing, Inc. †

For his promotion of all aspects of thermal spray. His unselfish dedication reflected 42 years of service as technician, engineer, organizer, instructor, administrator and consultant. He was 'Mr. Metallizing' to his peers.

1994 Class of Inductees

Herbert Herman, FASM, State University of 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, Flame-Spray Industries, Inc.

For pioneering work in the development of thermal spray devices including the single wire plasma gun, and playing a central role in introducing new thermal spray technology to industry.

Merle L. Thorpe, FASM, TAFA, Inc. †

For work in exploring plasma spray coating systems and innovative coating materials, processes and applications; and a driving entrepreneurial spirit aimed at expanding the thermal spray industry.

William E. Ballard, Metallisation, Ltd. †

For his pioneering and unparalleled efforts in cataloging and chronicizing 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, Inventor †

For his 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.

(†- deceased)