

**Maurice Gell**  
**Chief Technology Officer**  
**Solution Spray Technologies, LLC**

Also, Research Professor  
Department of Materials Science & Engineering  
Institute of Materials Science  
University of Connecticut  
Storrs, CT 06269-3136

***(I) Education and Training***

- *Ph.D.*, Metallurgy, Yale University, New Haven, CT, June 1965
- *M.S.*, Metallurgy, Yale University, New Haven, CT, June 1963
- *B.S.*, Metallurgy, Columbia University, New York, NY, June 1961
- *M.S.*, Economics, Columbia University, New York, NY, August 1960
- *B.A.*, Pre-Engineering, Columbia College, New York, NY, June 1959

***(II) Research and Professional Experience***

- Co-Founder & CTO of Solution Spray Technologies LLC, Feb. 2015 to present.
- Research Professor, Department of Materials Science & Engineering, University of Connecticut, Storrs, CT, August 1993 to present.
- Manager of Materials & Processes, Pratt & Whitney, East Hartford, CT, 1982-1993
- Supervisor of High Temperature Materials, Pratt & Whitney, East Hartford, CT, 1972-1982
- Senior Principal Engineer, Pratt & Whitney, East Hartford, CT, 1966-1972
- NSF Postdoctoral Fellow, Central Electricity Research Laboratory, Leatherhead, England, 1965-1966

***(III) Publications, Patents & Awards***

- 168 Publications (Google Scholar H=56, Over 14,500 citations)
- 19 Patents
- ASM International Engineering Materials Achievement Award For The Development of Single Crystal Superalloy Turbine Blades, 1986
- ASM Fellow, 1986
- United Technologies George Mead Gold Medal For Engineering Achievement, 1980
- United Technologies Leadership Award For Production Implementation of Electron Beam Physical Vapor Deposition Thermal Barrier Coatings, 1993
- United Technologies Leadership Award For Major Cost Reduction of High Temperature Coatings Processes, 1989

- ***Selected Publications***

1. R. Kumar, C. Jiang, M. Gell, E.H. Jordan, “Component Demonstration and Engine Validation of Solution Precursor Plasma Spray (SPPS) Yttrium Aluminum Garnet (YAG) Thermal Barrier Coatings: Parts I & II II. *J Therm Spray Tech* **32**, 1505–1517 (2023)
2. M. Gell, J. Wang, R. Kumar, J. Roth, C. Jiang, E. H. Jordan, “Higher temperature thermal barrier coatings with the combined use of yttrium aluminum garnet and the solution precursor plasma spray process,” *J. Therm. Spray Technol.*, vol. 27, no. 4, pp.543-555, 2018.
3. R. Kumar, E. Jordan, M. Gell, C. Jiang, “CMAS Behavior of Yttrium Aluminum Garnet (YAG) and Yttria Stabilized Zirconia (YSZ) Thermal Barrier Coatings,” *Surface Coatings and Technology* 327, pp 1216-138, 2017
4. E. H. Jordan, C. Jiang and M. Gell, “Solution Precursor Plasma Spray (SPPS) Process: A Review with Energy Considerations,” *Journal of Thermal Spray Technology* 27(7), (2016), 1153-1165.
5. Jiang, C. Jordan E. H., Harris, A. B. Gell, M. and Roth, J. , Double-Layer Gadolinium Zirconate/Yttria-Stablized Zirconia Thermal Barrier Coating Deposited by Solution Precursor Plasma Spray Process, *Journal of Thermal Spray Technology*, 24(5) pp. 895-906, 2015.
6. Jordan E. H. Jiang C., Roth J. and Gell, M.,” Low Thermal Conductivity Yittria-Stablized Thermal Barrier Coatings Using the Solution Precursor Plasma Spray Process, *Journal of Thermal Spray*, 25(5) pp. 849-859, 2014
7. Chigozie K. Muoto, Eric H. Jordan, Maurice Gell and Mark Aindow, “Identification of Desirable Precursor Properties for Solution Precursor Plasma Spray,” *Journal of thermal Spray Technology*, Vol. 20(4) pp. 802-816, May, 2011.
8. M. Gell et al, Thermal Barrier Coatings Made by the Solution Precursor Plasma Spray Process, *J. Th. Spray Tech.*, vol. 17, pp 124-135, 2008 (SPPS TBC Review Paper).
9. D. Chen, E.H. Jordan, M. Gell, “Effect of Solution Concentration On Splat Formation and Coating Microstructure Using The Solution Precursor Plasma Spray Process, *Surface and Coatings Technology*, vol 202, issue 10, 2008, 2132-2138.
10. N. P. Padture, M. Gell and E.H. Jordan, “Thermal Barrier Coatings For Gas Turbine Engine Applications,” *Science*, 296, [5566] 280-284 2002.