

Title: Axial III SPS for Various Emerging Applications

Abstract: Suspension plasma spraying (SPS) is gaining interest in all thermal spray applications that require feedstock sizes below one micron. These are usually new, emerging technologies triggered by rapid developments of nano-materials. These include thermal barrier coatings, next generation environmental barrier coatings, and ceramic membranes as in the solid oxide fuel cells. Mettech's Axial III SPS demonstrates its superiority in controlled and reproducible deposition of quality coatings where microstructures of and other properties of coatings may be custom modified for specific applications or individual customers.

This paper introduces various applications for Axial III SPS developed so far, and explores future possibilities and directions of the technology.