| | | | |
|---|---|---|---|
| 044 | UTBM<br>service communication | Life Science Weekly | 7 février 2014 |
| | | | recherche - laboratoires - IRTES - Lermps |

Life Science Weekly
Tuesday, February 11, 2014 - 00:01 UTC -0500

## Researchers from UTBM Report Findings in Processing Technology

By a News Reporter-Staff News Editor at Life Science Weekly -- New research on Processing Technology is the subject of a report. According to news reporting originating from Belfort, France, by NewsRx correspondents, research stated, "Commercially available WC10Co4Cr powder was thermally sprayed by HVOF process. The methane was used as the fuel gas and its flow rate was successively changed as well as the oxygen."

Our news editors obtained a quote from the research from UTBM, "The investigation was carried out to determine the influence of operating parameters on the evolution of velocity and temperature of in-flight particles in order to have a better understanding of the interaction between the particle and the flame jet. In relation to the particle characteristics, properties of the sprayed coatings were examined in terms of microstructure, porosity level and microhardness. The results show that the particle velocity and temperature depends strongly on the particle size. The variation of the methane flow rate has a more obvious influence on the velocity and temperature of particles than that of the oxygen."

According to the news editors, the research concluded: "The changes of porosity and microhardness of deposited coatings are discussed corresponding to the variation of fuel and oxygen flow rates."

For more information on this research see: Relationships between in-flight particle characteristics and properties of HVOF sprayed WC-CoCr coatings. *Journal of Materials Processing Technology*, 2014;214(2):456-461. *Journal of Materials Processing Technology* can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Journal of Materials Processing Technology - www.elsevier.com/wps/product/cws_home/505656)

The news editors report that additional information may be obtained by contacting X.P. Guo, UTBM, IRTES LERMPS Lab Etud & Rech Mat, F-90010 Belfort, France. Additional authors for this research include M.P. Planche, J.F. Chen and H.L. Liao (see also Processing Technology).

Keywords for this news article include: France, Europe, Belfort, Chalcogens, Processing Technology