Special Issue

Recent Advances in High-Velocity Oxygen Fuel (HVOF) Coatings

Message from the Guest Editors

Many researchers have studied surface engineering to explore superior coatings deposited onto metallic materials to overcome deterioration. As a new thermal spraying technology, high-velocity oxygen fuel (HVOF) technology has the characteristics of fast particle flight speed, low temperature, and high bonding strength and is widely used in the machinery, electric power, metallurgy, aviation, and petrochemical industries for surface protection and repair of metal materials. HVOF spraying technology can extend the life of related components and provide a new way for the world's low-carbon green manufacturing. This Special issue will serve as a forum for papers in the following concepts:

- Experimental study and numerical simulation of HVOF spraying mechanism;
- Study on the correlation between the preparation process of HVOF coating and coating properties;
- Industrial applications of high-performance HVOF coatings;
- Explore the many possibilities of HVOF coatings;
- Research prospect of HVOF spraying and coatings.

Guest Editors

Prof. Dr. Jianxing Yu

- 1. State Key Laboratory of Hydraulic Engineering Simulation and Safety, Tianjin University, Tianjin 300072, China
- 2. Tianjin Key Laboratory of Port and Ocean Engineering, Tianjin University, Tianjin 300072, China

Dr. Xin Liu

- 1. State Key Laboratory of Hydraulic Engineering Simulation and Safety, Tianjin University, Tianjin 300072, China
- 2. Ocean Interdisciplinary Research Center, Tianjin University, Tianjin 300072, China

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Coatings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
coatings@mdpi.com

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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

Editors-in-Chief

Prof. Dr. Wei Pan

State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science & Engineering, Tsinghua University, Beijing 100084, China

Dr. Emerson Coy

NanoBioMedical Centre, Adam Mickiewicz University in Poznań, ul. Wszechnicy Piastowskiej 3, 61-614 Poznań, Poland

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