EFCE Spotlight Talks

Working Party on Static Electricity in Industry

12 November 2024

14:00-16:00 CET

EFCE

WP Static Electricity in Industry

Electrostatic charging of particles in flows

We are excited to announce an upcoming webinar on "Electrostatic Charging of Particles in Flows," which will be given by two renowned experts in the field. The webinar focuses on how electrostatic charging contributes to loss processes in various powder handling industries such as pharmaceuticals, food processing, and chemical engineering. Electrostatic charges can lead to significant losses through wall fouling, material clinging, clumping, and dust explosions. Addressing these issues is crucial for optimizing production and ensuring workplace safety.

The first Invited Speaker is Prof. Mojtaba Ghadiri, who will discuss the measurement and modeling of charge distribution resulting from aerodynamic dispersion, handling and conveying, and fluid bed operations. His talk will shed light on the underlying mechanisms of charge distribution and how the use of antistatic agents can significantly reduce charge levels.
The second Invited Speaker, Prof. Poupak Mehrani, will present her research on electrostatic charge generation in gas-solid processes, with a particular emphasis on gas-solid fluidized beds. Her current research areas cover multiphase reactor engineering and the challenges posed by electrostatic charges in these systems.

PROGRAM

14:00	**Welcome and introduction** Prof. Pedro Llovera, Chair Working Party on Static Electricity in Industry, Energy Technological Institute, Polytechnic University of Valencia - Spain Holger Grosshans, Physikalisch-Technische Bundesanstalt (PTB) - Germany Giorgio Veronesi, EFCE President
14:15	**Triboelectrification of powders: measuring, modelling and manipulating** Prof. Mojtaba Ghadiri, School of Chemical and Process Engineering, Univ. of Leeds - UK
15:00	**Operational challenges due to triboelectrification in gas-solid fluidized beds and potential mitigation techniques** Prof. Poupak Mehrani, Faculty of Engineering, University of Ottawa - Canada
15:45	**Conclusion** Holger Grosshans, Physikalisch-Technische Bundesanstalt (PTB) - Germany Prof. Pedro Llovera, Chair Working Party on Static Electricity in Industry

REGISTRATION

free of charge but mandatory

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