

EFCE Spotlight Talks

Working Party on
Static Electricity in Industry

21
May
2025

14:00-15:45
CET



Electrostatic charging of liquids: Fundamentals, risks and safety measures

Electrostatic charging of liquids is a major concern in many industrial processes. It occurs in numerous situations, often going unnoticed until undesired effects arise. The electrostatic charging of liquids results from complex interactions between materials and is highly dependent on various physical variables such as temperature, flow rate, and more. In many cases, the process is not fully understood, which can lead to incorrect decisions.

The webinar on "Electrostatic Charging of Liquids" will be presented by two renowned experts in the field. We will first examine the fundamental physical phenomena of liquid charging before exploring the associated risks in industrial processes.

The first invited speaker, Prof. Thierry Paillat, will explain the underlying physical phenomena of electrostatic charging in liquids: what happens inside a duct or during container filling, how the double layer is formed, how to measure electrostatic charge, its distribution, and other fundamental aspects.

The second invited speaker, Dr. Jeremy Smallwood, will provide an overview of the implications of electrostatic charging in practical applications, incorporating real case studies, some standard recommendations, and insights from technical literature.

PROGRAM

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| 14:00 | Welcome and introduction
Prof. Pedro Llovera, Chair of the WP on Static Electricity, Energy Technological Institute, Polytechnic University of Valencia - Spain
Giorgio Veronesi, EFCE President |
| 14:10 | Charging of liquids: fundamentals, materials properties and measurements
Prof. Thierry Paillat, University of Poitiers - France |
| 14:55 | Overview on risks and standards recommendations. Some examples and cases
Dr. Jeremy Smallwood. Electrostatic Solutions, UK |
| 15:35 | Concluding remarks
Prof. Pedro Llovera-Segovia, Chair of WP Static Electricity in Industry |

[REGISTRATION](#)

free of charge but mandatory

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