

Special Issue

Latest Advances and Prospects of Coating Preparation by Electrophoretic Deposition

Message from the Guest Editor

Electrophoretic deposition (EPD) is a physical coating method that uses the electrophoresis of colloids rather than chemical processes. It has the advantage of excluding unintended coating properties caused by chemical reactions and imparting predictable unique properties of the coating material to the surface. In recent years, EPD has been used to coat various nanomaterials on conductive and non-conductive surfaces to impart functionality, and the field of application has gradually expanded. This Special Issue welcomes on EPD: Mechanisms of electrophoretic deposition: Control of electric fields and colloidal characteristics; Interaction of particle–particle or particle–surface; Determination of coating durability; Methods of electrophoretic deposition: Electrophoretic deposition of organic, inorganic and biomaterial; Composite coating layer; Use of surfactants and dispersants Applications of electrophoretic deposition: Biomedical, energy and environmental, mechanical and electrical, safety and protection

Guest Editor

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About the Journal

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.

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