Special Issue

Advances in Adhesion Science, Materials and Technology

Message from the Guest Editors

Adhesion plays a key role in nature and artificial applications, spanning from atomistic to macroscopic scales. The study and design of adhesive systems is complex, since adhesion is affected by several factors, such as surface roughness, bulk material and interfacial properties, material ageing, loading conditions and contact geometry. This Special Issue aims to collect recent contributions from scientists working on basic and applied research on adhesion. Our goal is to highlight the most recent advances in the modeling, experimentation, and technology of adhesive systems across various length scales. Contributions are welcome on, but are not strictly limited to, the following topics:
Strategies for tuning adhesion; Bio-inspired adhesive systems;
Design of structural and/or reversible adhesive systems;
Haptic adhesion;
Adhesion in biomedical applications;
Adhesion contact mechanics;
Peeling and fracture mechanics;
Artificial Intelligence strategies applied to adhesion;
Soft and hard matter adhesion;
Interplay of adhesion and friction;
Pick-up and place tools;
Soft adhesive grippers;
Innovative adhesive materials;
Experimental measurements of adhesion.

Guest Editors

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Prof. Dr. Luciano Afferrante

Deadline for manuscript submissions

closed (20 December 2023)

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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