



# ***SURFACE & COATINGS TECHNOLOGY***

**Mechanical and Tribological Properties of Biomedical  
Coatings and Surface-modified Biomaterials**

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### Editorial

Biomaterials are generally referred to as natural or artificial materials used to repair or reconstruct injured and nonfunctional tissues and organs. They are found in many biomedical devices and important examples include cardiac pacemakers, artificial heart valves, bone plates and fixators, hip replacements, catheters and stents, breast implants, and dental implants. Biomaterials research is inter-disciplinary encompassing medicine, biology, chemistry, physics, biomechanics, surface science, and materials science. In particular, biomedical coatings which have attracted immense interest from both the scientific community and industry constitute an important class of biomaterials. Coatings can endow biomaterials with the desirable surface properties such as cytocompatibility, osseointegration, antimicrobial characteristics, and degradability while favorable bulk attributes such as strength, robustness, and inertness can be retained. Research on biomedical coatings and in the broader sense, surface modification, has experienced exponential growth. This special issue, which is dedicated to the area

of surface modification and coatings directly relevant to biomaterials, features 18 timely reviews and papers written by prominent scientists in the field, serves as a reference to researchers and practitioners working in this important area.

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