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Research Progress on Mechanical Behavior of Polymers

Guest Editors:

Dr. Rui F. Martins

Department of Mechanical and Industrial Engineering, NOVA School of Science & Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal

Dr. Ricardo Branco

Department of Mechanical Engineering, University of Coimbra, 3030-788 Coimbra, Portugal

Prof. Dr. Filippo Berto

Department of Chemical Engineering, Materials and Environment, Sapienza University of Rome, 00184 Rome, Italy

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Message from the Guest Editors

Dear Colleagues,

Polymers offer a wide range of mechanical behaviours that profoundly affect their performance and determine their application in transforming healthcare, consumer goods, automotive, or aerospace industries, among others. Moreover, additive manufacturing has revolutionized polymer applications, allowing the creation of complex components with reduced waste and customized mechanical properties that depend on the materials used, process parameters, printing strategies, and post-processing. Therefore, prominent thermoplastics are now widely employed for prototyping and making functional parts of consumer products, e.g., for biomedical, aerospatial, oil, and gas applications.

Hence, a thorough understanding of the mechanical properties of this class of engineering materials is crucial for designing durable polymer components.

In this Special Issue, we invite researchers and practitioners to contribute their expertise and insights to further our understanding of topics such as the yield strength, tensile strength, hardness, ductility, fracture toughness, fatigue, creep deformation, and failure mechanisms of recently developed or newly applied polymers.













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Editor-in-Chief

Prof. Dr. Alexander Böker

Lehrstuhl für Polymermaterialien und Polymertechnologie, University of Potsdam, 14476 Potsdam-Golm, Germany

Message from the Editor-in-Chief

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