

# Special Issue

## Tribology in Artificial Joints

### Message from the Guest Editors

Biotribological properties associated with wear, friction, and lubrication are important to the implementation of many medical devices, such as orthopedic implants, artificial joints, etc. Understanding the biotribological properties well contributes to the innovation of medical devices and the improvement in human life quality. This Special Issue aims to present the current applications and future directions in biotribological challenges in artificial joints, with particular attention on the biotribological design and modeling in joint implant and in vitro biotribological testing methodology development of mathematical and numerical modeling necessary for in silico tribological investigations. Contributions are welcome from both academic researchers and their industrial peers, dealing with the latest developments on this topic. We are pleased to invite you to submit a paper to be published in this Special Issue. Original research articles and reviews are welcome on research areas that may include (but are not limited to) the following: biotribology in the hip, knee, shoulder, ankle, elbow, spine implants, etc.

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### Guest Editors

Dr. Zikai Hua

Dr. Leiming Gao

Dr. Hongyu Zhang

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### Deadline for manuscript submissions

31 October 2025



## Lubricants

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## About the Journal

### Message from the Editor-in-Chief

Friction, wear, and lubrication are tribological phenomena that govern the behavior of interacting surfaces in a wide range of machine components. Understanding the physical and chemical nature of these phenomena is critical to achieving long component lifetime and economical operation. Research in the field of tribology is highly interdisciplinary, and encompasses the fields of physics, chemistry, engineering, and mathematical modeling. *Lubricants* invites contributions on new advances in all areas of tribology for publication as peer-reviewed research articles, reviews of current research, letters, and communications. We are committed to providing timely reviews of all articles submitted. Please consider sharing your work with the scientific community through publication in *Lubricants*.

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### Editor-in-Chief

Prof. Dr. Homer Rahnejat  
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#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).