



## Anti-wear Lubricating Materials

Guest Editors:

**Dr. Feng Nan**

School of Mechanical and  
Electrical Engineering, Wuhan  
Institute of Technology, Wuhan  
430205, China

**Prof. Dr. Xianguo Hu**

Institute of Tribology, Hefei  
University of Technology, Hefei  
230009, China

Deadline for manuscript  
submissions:  
**30 May 2025**

### Message from the Guest Editors

Wear caused by friction is one of the main causes of mechanical component failure. Wear accidents usually start at the early stage of slight injury on the metal surface. Therefore, using lubricating protective materials to modify the worn surface of metals during the lubrication process is an effective method to reduce friction and wear on the mechanical component.

Over the past decades, some researchers have reported that plentiful materials, such as elementary substances, metallic oxides, metallic sulfides, borates, carbonates, rare earth compounds, silicate, macromolecular compounds, and so on, can be used as lubricating protective materials in lubricants to reduce friction and wear. With the continuous development of preparation technology, refinement technology, and surface modification technology of materials, more and more materials will be used as lubricating protective materials for the worn surface modification of metals.

The intention of this Special Issue is to share advances in new lubricating protective materials, new tribological phenomena, and new tribological mechanisms. Both experimental and theoretical investigations are highly welcome.

