Special Issue

Lubrication Condition Monitoring of Marine Machinery

Message from the Guest Editors

Marine machinery serves as the core component of maritime transportation, whose operational reliability is critically important to navigation safety and operational efficiency. The health of the lubrication system is essential for ensuring machinery stability.

This study focuses on condition monitoring technologies for lubricating systems in critical marine equipment, with a systematic investigation into the application features of various monitoring techniques, including physicochemical oil analysis, online wear debris detection, and intelligent forecasting. By incorporating real-world vessel operational data, this work identifies early indicators and progressive patterns of lubrication failure. Furthermore, it develops accurate condition assessment models, thereby offering theoretical foundations and technical insights for early fault warning and maintenance strategy optimization related to marine machinery lubrication. These contributions support the advancement of intelligent operation and maintenance in shipping equipment.

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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.

Editor-in-Chief

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