Special Issue

Minimum Quantity Lubrication: Environmental Alternatives in Processing

Message from the Guest Editors

Cutting fluid is used to cool and lubricate the cutting zone during machining operation. However, the environmental and health consequences of flood coolants have motivated manufacturers to seek alternative lubrication methods. Alternatives to conventional cooling may also have economic benefits, since flood cooling is inherently wasteful. This Special Issue aims to review the state of the art in machining studies using minimum quantity lubrication (MQL) to investigate recent advancements in MQL and to explore its benefits as an environmentally friendly lubrication strategy. This Special Issue will be the first of its kind and will discuss the latest developments worldwide in MQL, an environmentally friendly lubricant in machining.

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Deadline for manuscript submissions

closed (21 June 2023)



Lubricants

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Impact Factor 2.9 CiteScore 4.5



mdpi.com/si/125209

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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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