Special Issue

Advances in Machining Process for Hard and Brittle Materials

Message from the Guest Editor

Hard and brittle materials, such as semiconductors, advanced ceramics, and optical glass, are widely applied in aerospace, electronic devices, and biomedicine. Hard and brittle material machining technology is an indispensable aspect in modern manufacturing, playing a crucial role in enhancing product performance and quality. This Special Issue aims to gather the latest research on the hard and brittle material machining processes, providing new insights and prospects for academia and industry. Despite challenges encompassing material fracture, residual stresses, and subsurface damage, we possess the confidence to propel hard and brittle material machining toward a more promising future. We sincerely welcome researchers to submit innovative works related to hard and brittle material machining processes, and jointly promote the advancement and application of this field.

Keywords hard and brittle materials; abrasive machining; laser-assisted machining; ultrasonic machining; multi-field; removal mechanism; brittle-ductile transitions; molecular dynamics; multiscale model; surface damage

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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