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Ductile and Brittle Fractures in Metals

Guest Editor:

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Deadline for manuscript submissions:
closed (20 August 2021)

Message from the Guest Editor

Dear Colleagues,

Engineering metals including high strength steels have been successfully applied in the automotive, oil and gas, construction and maritime industries. Ductile and brittle fractures in engineering metals causing premature failure of automobile parts in crashes or during assembly, and catastrophic failure of large scale engineering structures when subjected to extreme loads have recently become important research areas. The industry requires cheap and yet reliable experimental methods to characterize plasticity and ductile fractures. In addition, advanced computational modeling approaches are sorely needed at the design stage, as ductile and brittle fractures have become an important factor particularly limiting the design of automobiles.

This Special Issue will consider a wide range of areas including, but not limited to:

experimental characterization of ductile and brittle fracture behavior;

modeling of anisotropy of metal sheets;

ductile fracture prediction in sheet metal formation;

ductile fracture prediction in crash analysis;

multi-axial fracture;

coupled and uncoupled fracture models.

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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.

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