

Special Issue on Service Lifetime of Creep Resistance Alloy Welded Joints

CALL FOR PAPERS

Welded joints of pressure elements are potentially the weakest parts in steam boilers, affecting their service lifetime. The joints constitute a place where, during long-term operation, a loss of material continuity may occur. Within the joint, it is usually the heat affected zone which is most affected. The properties of welded joints may have a decisive influence on the safe operation of pressure elements at elevated temperature. The investigations of welded joints thus contribute to a general understanding of degradation processes.

The main objective of this special issue is to collect original research papers that focus on similar and dissimilar welded joints working in power/petrochemical industry. The exploitation of welded joints made of materials used in the industries mentioned above requires appropriate knowledge and experience. Therefore, it is also necessary to have knowledge related to modelling and simulations of the welded joints and destructive and nondestructive methods for assessing the service lifetime of components operating under creep conditions as well as the assessment of the degree of exploitation of the microstructure and properties.

The purpose of this special issue is to present the state of recent progress and application of creep resistance alloy welded joints. The articles showing the causes of damage or destruction of welded joints during operation under creep conditions would also be welcome.

Potential topics include but are not limited to the following:

- ▶ Destructive and nondestructive methods for assessing the service lifetime of components operating under creep conditions
- ▶ Causes of welded joints damage under creep conditions
- ▶ Mechanisms of degradation of the microstructure of welded joints and their evaluation
- ▶ Assessment of durability of similar and dissimilar welded joints before operation
- ▶ Modelling and simulations of the welding joins

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/amse/wjcr/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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