Mechanical response of aluminum 7075 with heat treatment and exfoliation corrosion

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Abstract
The present investigation was focussed to evaluate the mechanical properties of AA7075 subjected to corrosion and heat treatment. Exfoliation corrosion has been used to infuse rapid corrosion on the material coupled with high temperature and subsequent low-temperature aging (HLA). It has been found that the localized corrosion pit formation occurs with HLA and corrosion exposure durations with substantial inter-granular changes and formation of cracks. Significant reduction in subjected to HLA and corrosion. (c) 2021 Elsevier Ltd. All rights reserved. Selection and peer-review under responsibility of the scientific committee of the Technology Innovation in Mechanical Engineering-2021.

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