

[Skip navigation menu](#)

English

Products

Web of Science™[Search](#)[Marked List](#)[History](#)[Alerts](#)[Sign In](#) ▾[Register](#)[Search](#) > [Results](#) > Influence of high and subs...[Full text at publisher](#)[Export](#) ▾[Add To Marked List](#)< 1 of 1 >

Influence of high and subsequent low-temperature artificial ageing on exfoliation corrosion of AA2024

By: [Talikota, MA](#) (Talikota, Mohammed Aqeel) ¹; [Kittur, MI](#) (Kittur, M. I.) ^{2, 3}; [Reddy, AR](#) (Reddy, Avala Raji) ⁴; [Baig, MAA](#) (Baig, Maughal Ahmed Ali) ⁴; [Khan, RSA](#) (Khan, Ridwan Sher Afghan) ⁵; [Faheem, M](#) (Faheem, Mohammed) ^{5, 6}

[View Web of Science ResearcherID and ORCID](#) (provided by Clarivate)

MATERIALS TODAY-PROCEEDINGS

Volume: 47 **Page:** 6147-6152 **Special Issue:** SI **Part:** 17

DOI: 10.1016/j.matpr.2021.05.074

Published: 2021

Document Type: Proceedings Paper

Conference

Meeting: [International Conference on Technology Innovation in Mechanical Engineering \(TIME\)](#)

Location: Bhopal, INDIA

Date: APR 22-23, 2021

Abstract

Citation Network

In Web of Science Core Collection

0

Citations

[Create citation alert](#)

Cited References

17

[View Related Records](#)

Use in Web of Science

Web of Science Usage Count



The present study aims at assessing the mechanical behavior of aluminum alloy (AA2024) subjected to exfoliation corrosion. The material was exposed to high temperature and subsequent low temperature (HLA) treatment and further the heat-treated samples were subjected to exfoliation corrosion for the duration of 48 and 96 h at room temperature. The HLA treatment increases the retention property of material in the corrosive environment. Further, hardness and impact strength was also increased under the corrosive environment with HLA treatment. In addition to the experimental investigation, a series of simple second-degree polynomial equations were developed to predict the various mechanical properties at different intervals of corrosion durations of AA2024 specimens subjected to HLA exfoliation 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.

Keywords

Author Keywords: [Aluminum Alloy-AA2024](#); [Exfoliation Corrosion](#); [HLA](#); [Heat Treatment](#); [Mechanical Properties](#); [Polynomial Expressions](#); [Curve Fitting](#); [Experimental Study](#)
Keywords Plus: [ALUMINUM-ALLOYS](#); [BEHAVIOR](#); [MICROSTRUCTURE](#); [CRACKING](#)

Author Information

Corresponding Address: Faheem, Mohammed (corresponding author)

▼ Int Islamic Univ Malaysia, Dept Mech Engn, Fac Engn, Kuala Lumpur, Malaysia

Corresponding Address: Faheem, Mohammed (corresponding author)

▼ VTU Belagavi, PA Coll Engn, Dept Mech Engn, Mangaluru, India

Addresses:

- 1 KLS Gogte Inst Technol, Dept Mech Engn, Belagavi, India
- ▼ 2 Univ Malaya, Ctr Adv Mat, Fac Engn, Kuala Lumpur, Malaysia
- ▼ 3 Univ Malaya, Dept Mech Engn, Fac Engn, Kuala Lumpur, Malaysia
- 4 CMR Tech Campus, Dept Mech Engn, Hyderabad, Telangana, India
- ▼ 5 Int Islamic Univ Malaysia, Dept Mech Engn, Fac Engn, Kuala Lumpur, Malaysia

[...more addresses](#)

E-mail Addresses: faheem.mech@pace.edu.in

Categories/Classification

Research Areas: Materials Science

Document Information

Language: English

0

Last 180 Days

[Learn more](#)

0

Since 2013

This record is from: Web of Science Core Collection

- Conference Proceedings Citation Index – Science (CPCI-S)

Suggest a correction

If you would like to improve the quality of the data in this record, please [Suggest a correction](#)

Accession Number: WOS:000709741800001

ISSN: 2214-7853

Other Information

IDS Number: WK5BW

[— See fewer data fields](#)

Journal information

MATERIALS TODAY-PROCEEDINGS

ISSN: 2214-7853

Current Publisher: ELSEVIER, RADARWEG 29, 1043 NX AMSTERDAM, NETHERLANDS

Research Areas: Materials Science

Web of Science Categories: Materials Science, Multidisciplinary

17 Cited References

Showing 17 of 17

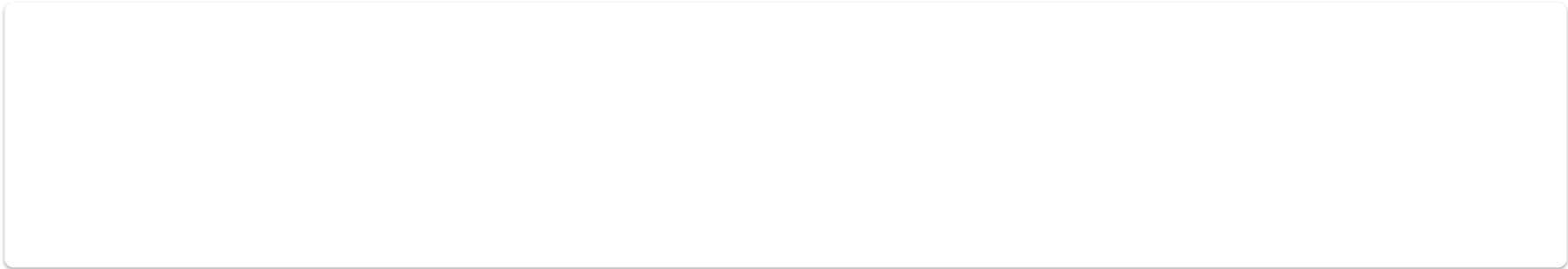
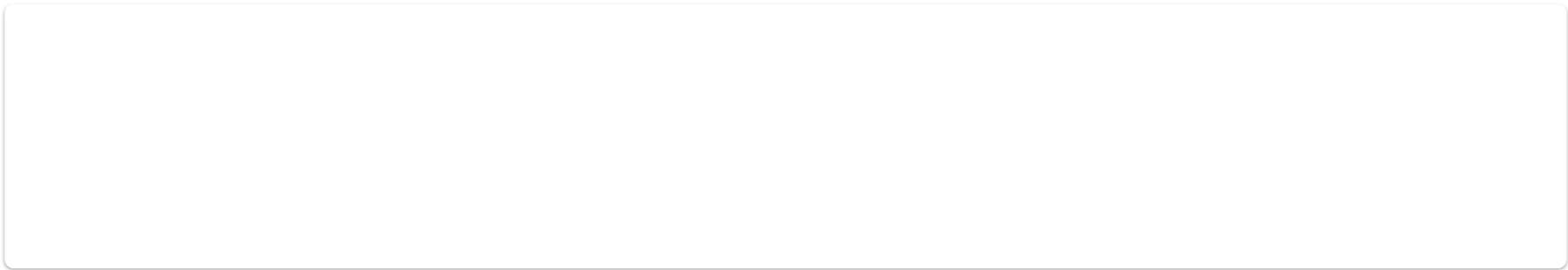
[View as set of results](#)

(from Web of Science Core Collection)









© 2021 Clarivate
Training Portal
Product Support

Data Correction
Privacy Statement
Newsletter

Copyright Notice
Cookie Policy
Terms of Use

Follow Us

