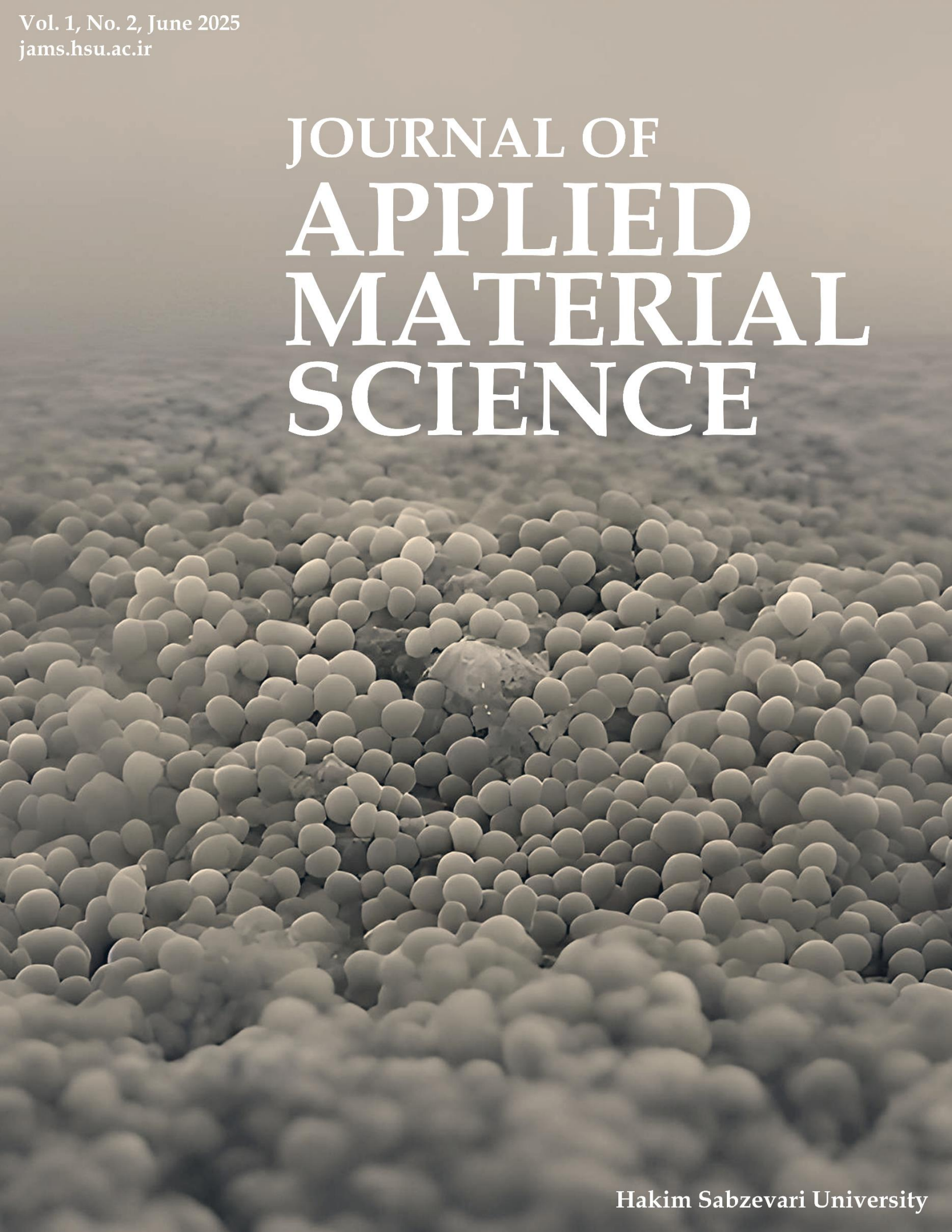
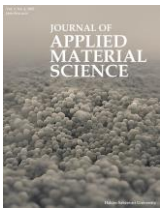
Vol. 1, No. 2, June 2025
jams.hsu.ac.ir

JOURNAL OF APPLIED MATERIAL SCIENCE



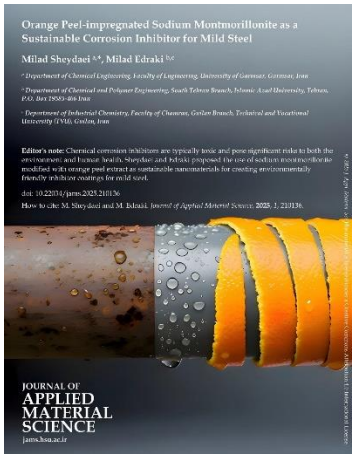
Hakim Sabzevari University

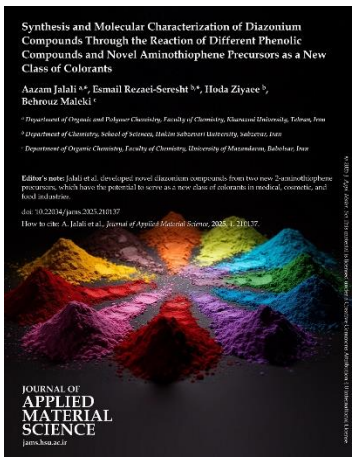
JOURNAL OF
APPLIED
MATERIAL
SCIENCE
jams.hsu.ac.ir

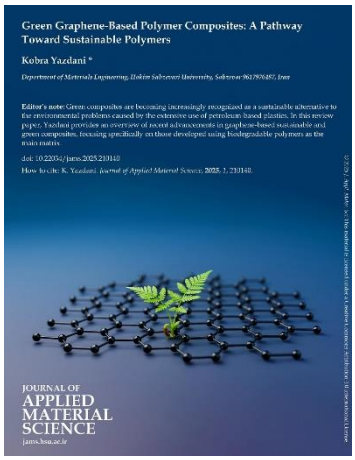


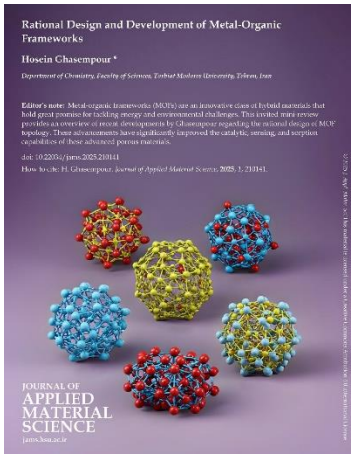
Contents

Volume 1, No. 2, June 2025









Metal-organic frameworks (MOFs) are an innovative class of hybrid materials that hold great promise for tackling energy and environmental challenges. This invited mini-review provides an overview of recent developments by Ghasempour regarding the rational design of MOF topology. These advancements have significantly improved the catalytic, sensing, and sorption capabilities of these advanced porous materials.

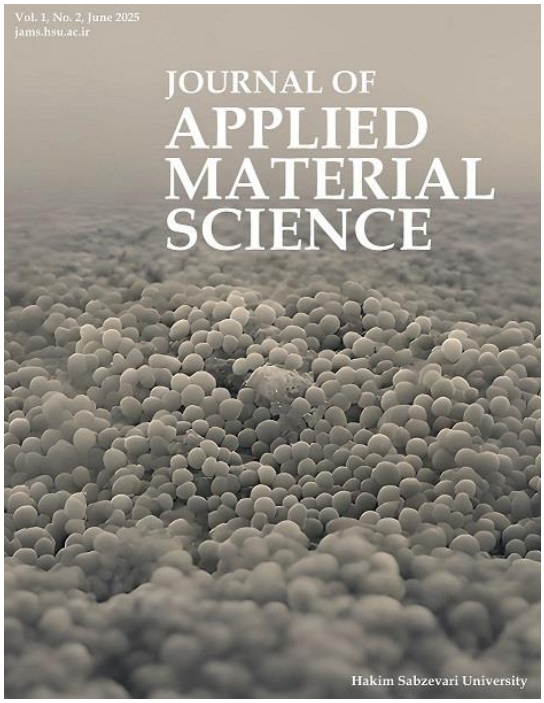
Hosein Ghasempour

doi: 10.22034/jams.2025.210141

ABOUT COVER

Three-dimensional carbon-based materials show great potential for hosting various microorganisms, paving the way for next-generation living materials. The cover features a regenerated image based on a field emission scanning electron microscope (FESEM) image of a graphene-based highly porous aerogel, which was incubated with *Staphylococcus aureus* (*S. aureus*) bacteria for two days.

(Note: The covers of this journal are created in part using artificial intelligence (AI) technologies, with direct human supervision. AI and AI-assisted technologies are permitted only for generating graphical abstract suggestions. If such technologies are used in the manuscript preparation, it must be clearly disclosed in the Acknowledgments section.)



jams.hsu.ac.ir JOURNAL OF APPLIED MATERIAL SCIENCE

Journal of Applied Material Science:

an *open-access* platform to publish scientific developments in all aspects of material science under the *highest publication standards* and *the fastest peer-review process*

The Journal of Applied Material Science publishes original research in the form of ***communications*** and ***full papers***, as well as ***reviews***, invited ***mini-reviews***, and invited research news. Publication in this journal is **entirely free of charge**, and all accepted papers will be available online immediately after typesetting. Dr. Ahmad Allahbakhsh, along with an international team of editors, leads the journal to meet the highest publication standards. We are looking forward to receiving your submissions.

To submit a manuscript: Please consult the **aim and scope** of the journal at: https://jams.hsu.ac.ir/journal/aim_scope

Guide for Authors is available at: https://jams.hsu.ac.ir/journal/authors.note

To **submit** your paper, please visit: https://jams.hsu.ac.ir/author

https://doi.org/10.22034/jams.2025.210135
J. Appl. Mater. Sci., **2025**, *1*, 210135.