



EDITORIAL

Dear Reader,

I hope you had a good start to the year and look forward to a productive and fulfilling year even in the face of the unprecedented ongoing global challenges of the last couple of years. I wanted to reach out to share two exciting developments with the journal that were put in place to recognize our authors for excellence: Editor's Choice articles and JMEP's new cover design to highlight our authors' artwork.

The tradition of highlighting Editor's Choice articles for JMEP started in 2013. This is one way we honor our authors for their valued contributions. The authors of Editor's Choice picks also receive congratulatory letters to recognize their contribution. Bill Frazier, JMEP's Editor, joined me to select Editor's Choice articles for 2021 and we plan to continue doing this going forward.

As a broad-base materials journal, JMEP publishes articles on a diverse array of materials topics. This year's Editor's Choice picks include articles on ascendant technologies (additive manufacturing), emerging paradigms that redefine the materials field (data science-driven materials development), and classical materials and manufacturing topics (advanced joining, hydrogen attack). I encourage you to take time to visit the journal webpage (<https://www.springer.com/journal/11665/updates/17308756>) to view the following six articles that Bill and I chose as Editor's Choice picks for 2021. You may also view selections from previous years at the journal homepage.



Characteristics of Metal Specimens Formed by Selective Laser Melting: A State-of-the-Art Review

Dongju Chen, Peng Wang, Ri Pan, Chunqing Zha, Jinwei Fan, Dong Liang, and You Zhao
J. of Materi Eng and Perform **30**(10), 7073–7100 (2021)
<https://doi.org/10.1007/s11665-020-05323-6>

Data Science Techniques, Assumptions, and Challenges in Alloy Clustering and Property Prediction

Madison Wenzlick, Osman Mamun, Ram Devanathan, Kelly Rose, and Jeffrey Hawk
J. of Materi Eng and Perform **30**(2), 823–838 (2021)
<https://doi.org/10.1007/s11665-020-05340-5>

Recent Progress in Beam-Based Metal Additive Manufacturing from a Materials Perspective: A Review of Patents

Alberta Aversa, Abdollah Saboori, Giulio Marchese, Luca Iuliano, Mariangela Lombardi, and Paolo Fino
J. of Materi Eng and Perform **30**(12), 8689–8699 (2021)
<https://doi.org/10.1007/s11665-021-06273-3>

Comprehensive Examination of High-Temperature Hydrogen Attack: A Review of over a Century of Investigations

Kioumars Poorhaydari
J. of Materi Eng and Perform **30**(11), 7875–7908 (2021)
<https://doi.org/10.1007/s11665-021-06045-z>

Nanojoining with Ni Nanoparticles for Turbine Applications

J. Awayes, I. Reinkensmeier, G. Wagner, and S. Hausner
J. of Materi Eng and Perform **30**(5), 3178–3186 (2021)
<https://doi.org/10.1007/s11665-021-05813-1>

Increasing the Productivity of Laser Powder Bed Fusion for Stainless Steel 316L through Increased Layer Thickness

Alexander Leicht, Marie Fischer, Uta Klement, Lars Nyborg, and Eduard Hryha

J. of Materi Eng and Perform **30**(1), 575–584 (2021)

<https://doi.org/10.1007/s11665-020-05334-3>

The journal also brings out focused issues and topical reviews on contemporary topics in engineering materials and manufacturing processes. Some of our recent special issues and others in the works focus on metal additive manufacturing (AM), magnesium alloys, AM in space, energy materials, advanced joining science and technology, and other critical technologies. The content we publish is thoroughly vetted for quality and relevance using JMPEP's rigorous review process to meet the journal's high standards.

I also wish to draw your attention to JMPEP's new cover design that launched with the January 2022 issue. Bill and I have teamed up to select each month's cover images from papers published in that issue. Highlighting content-rich and aesthetically appealing artwork on the journal's cover is yet another way we will recognize our authors for quality. The images we select will appear against a neutral background of a stock photo that is more contemporary than a solid color. The unfocused peripheral areas in the stock image gradually come into sharper focus near the center to reveal a well-defined pattern that conveys a spirit of discovery. The captions of the cover images we select appear in a sidebar by the Table of Contents where the contributing authors are duly recognized.

JMPEP owes its success to teamwork by a dedicated editorial and production staff at ASM and Springer. It is fitting and proper to recognize key players in JMPEP's success story: Associate Editors Omar Es-Said, Carter Hamilton, Sergiy Kalnaus, Natalia Sobczak, and John Tartaglia – for their unremitting hard work and dedication to handling a substantially increased submission volume; JMPEP's Editor, Bill Frazier – for sharing an enormous amount of editorial work and helping to put the production schedule back on track, in addition to guest editing a mega issue on additive manufacturing; and Mary Anne Fleming, Director of ASM's Journals, Magazines, & Digital Media; Anita Lekhwani, Springer's Executive Editor; Emily Glorioso, Administrator for ASM's Journals and e-Media; Kate Doman, Content Developer for ASM Journals; Scott Henry, ASM's Senior Content Engineer; Vince Katona, Production Coordinator; and Madrid Tramble, Production Manager – for their truly exceptional support with all aspects of editorial and production issues. It would be remiss of me not to acknowledge with thanks the contributions of the JMPEP Editorial Committee officers and members, especially the Scope and Standardization Subgroup and the Quality Monitoring Subgroup for their critical feedback to the editors; all Guest Editors of special issues; and our authors and reviewers for their scholarship and service.

JMPEP has steadily grown over the last decade in submission volume, diversity of topics, quality, and impact. To meet the growing needs of our valued authors and readers and promote excellence and equity, support partnerships, and position the journal for continued success, many new initiatives are currently in the works that will be announced from time to time. As the journal marks its 30th anniversary this year, it will continue to cater to the needs of its stakeholders in business, industry, academia, and research communities worldwide. It is our sincere goal that the content we publish stimulates fresh thinking and vigorous open discussion and facilitates scientific knowledge to be transformed into innovative processes and technologies.

Best wishes,
Rajiv Asthana, Ph.D., FASM
Editor-in-Chief
University of Wisconsin-Stout
Menomonie, WI
asthanar@uwstout.edu

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.