

# *Tetsu-to-Hagané*

## Instructions to Authors

*Tetsu-to-Hagané* is a monthly journal of the Iron and Steel Institute of Japan (ISIJ) published in Japanese. Timely and original contributions are welcome from both ISIJ members and non-members in the world.

<b>Aims and Scope</b>	<b>1</b>
<b>Manuscript Types</b>	<b>2</b>
<b>Journal &amp; Ethics Policies</b>	<b>3</b>
<b>Peer Review Process</b>	<b>7</b>
<b>Copyright, Open Access and Fees</b>	<b>10</b>
<b>Manuscript Submission</b>	<b>11</b>
<b>Manuscript Preparation</b>	<b>12</b>
<b>Accepted Manuscripts</b>	<b>16</b>
<b>Contact</b>	<b>17</b>

### **Aims and Scope**

*Tetsu-to-Hagané* is a peer-reviewed open access journal dedicated to the publication of research addressing fundamental and technological aspects of iron, steel, and related engineering materials. Articles describe the properties, structure, characterization and modelling, processing, fabrication of iron and steel, as well as report on associated environmental issues. Papers covering subjects other than steel materials and Ti alloys not clearly related to steel materials are deemed unlikely of interest to readers and may be Out of Scope.

The following aspects of the science and engineering of iron and steel are of particular interest:

- I Fundamentals of High Temperature Processes
- II Ironmaking
- III Steelmaking
- IV Casting and Solidification
- V Instrumentation, Control, and System Engineering
- VI Chemical and Physical Analysis
- VII Forming Processes and Thermomechanical Treatment
- VIII Welding and Joining
- IX Surface Treatment and Corrosion
- X Transformations and Microstructures
- XI Mechanical Properties
- XII Physical Properties
- XIII New Materials and Processes
- XIV Social and Environmental Engineering

Topical special issues are published each year to benefit the journal's broad international audience.

## **Manuscript Types**

The journal publishes Regular Articles, Review Articles, Short Articles, Notes, and Technical Reports, all of which are subject to peer review. All manuscripts must be written in Japanese. Note that once a manuscript has been submitted, the article type cannot be changed. Even if the editorial board decides to change the manuscript type, the author must withdraw the initial submission and then resubmit it as the revised manuscript type.

### **Regular Articles**

Regular Articles document original and significant results that contribute to the extension of knowledge and promotion of our understanding of iron and steel. Regular Articles are expected to be within 10 printed pages (approximately 24000 characters, including tables, figures and other sections) in length. They must be presented in such a way that qualified workers can replicate the key elements on the basis of the information provided.

### **Review Articles**

Review Articles are extensive surveys on a specific subject in which previously published information is compiled, analyzed, and discussed. Reviews are usually invited by the Editorial Board, but authors may also submit them voluntarily.

### **Short Articles**

Papers that briefly report original research results and technical findings that require rapid publication. They are a maximum of 5 printed pages (approximately 12000 characters, including tables, figures and other sections). The results of peer review should be provided within approximately 3 weeks.

### **Notes**

Notes are a maximum of 5 printed pages (approximately 12000 characters, including tables, figures and other sections) and can take various forms. They may describe:

- (a) new research and techniques in a condensed form;
- (b) opinions or perspectives about topics of interest to readers; or
- (c) criticisms or additional proofs and interpretations in connection with articles previously published in the journal.

### **Technical Reports**

Technical Reports are a maximum of 6 printed pages (approximately 14400 characters, including tables, figures and other sections). They may be unpublished papers describing the development and progress in manufacturing, equipment, and utilization technologies for steel and related engineering materials, which are of sufficient practical significance.

### **Reprinted Articles**

Between *Tetsu-to-Hagané* and *ISIJ International*, mutual submissions for reprint are permitted only in the cases listed in the table below. Reprints between Notes are not permitted.

Original work		Reprinted work		Submission period
Journal	Types	Journal	Types	
<i>Tetsu-to-Hagané</i>	Regular Article	<i>ISIJ Int.</i>	Regular Article	1) Within one year from the publisher's version release date 2) Papers published in the special issue: Within 18 months from the publisher's version release date 3) Other papers requested by the journal editorial board: Within one year from the date of request 4) Prize-awarded papers (Sawamura Award and Guimaraes Award): Within one year from the award decision date (the day of the award ceremony)
<i>ISIJ Int.</i>	Regular Article	<i>Tetsu-to-Hagané</i>	Regular Article	
<i>Tetsu-to-Hagané</i>	Review Article	<i>ISIJ Int.</i>	Review Article	1) to 3) above
<i>ISIJ Int.</i>	Review Article	<i>Tetsu-to-Hagané</i>	Review Article	
<i>Tetsu-to-Hagané</i>	Short Article	<i>ISIJ Int.</i>	Short Article	Within six months from the publisher's version release date
<i>ISIJ Int.</i>	Short Article	<i>Tetsu-to-Hagané</i>	Short Article	

At the submission, it is necessary to indicate that the manuscript is reprinted from *ISIJ International* in the title page (the application form). The reprinted manuscript is treated as the same manuscript as the original manuscript. Changes to the title, author, author description order, text, figures, and tables are not permitted. If there is any difference from the original paper, it may be corrected or rejected.

## Journal & Ethics Policies

*Tetsu-to-Hagané* welcomes manuscript submissions from authors based anywhere in the world. However, at least one of the authors must be an ISIJ member. The journal upholds the highest standards in scholarly publishing.

Before submitting a manuscript to the journal, authors must ensure that they have read and complied with the journal's policies.

Submission to the journal implies that the manuscript has not been previously published (in part or in whole, in any language), is not in press, and is not under consideration for publication elsewhere. Authors must inform the editors if any related manuscripts are under consideration, in press or published elsewhere. The availability of a manuscript on a publicly accessible preprint server does not constitute prior publication (see 'Preprints').

Submission of a manuscript to the journal implies that all authors: have approved it, warrant it is factual, have agreed to its submission, and have the right to publish it.

All authors must declare on the prescribed input screen that the manuscript is unpublished, not considered for publication by any other journal, and prepared by themselves. Authors must also affirm that they agree to the submission of the manuscript to *Tetsu-to-Hagané*, and

that they agree to the policies and procedures laid out in this Instructions to Authors, including the copyright regulations and page charges.

If authors choose to submit their manuscript elsewhere before a final decision has been made on its suitability for publication in the journal, they must first withdraw it from the journal. The journal reserves the right to reject without review, or retract, any manuscript that the Editor believes may not comply with the journal's policies.

### **Originality**

Submissions to the journal must be original works. The manuscript already published in other journals is not allowed to be submitted. Please note that the data published even in *CAMP-ISIJ* (the abstracts of ISIJ annual meeting) loses its originality for publication. Manuscripts (including doctoral dissertations) published on the Internet, such as in institutional repositories, shall be treated as though they have already been published. By submitting a manuscript to the journal, authors agree to this screening. Any manuscript with an unacceptable level of unoriginal material may be rejected or retracted at the editors' discretion.

### **Preprints**

To support the wide dissemination of research, the journal allows authors to post their research manuscripts on community-recognized preprint servers, either before or alongside submission to the journal. This policy applies only to the original version of a manuscript that describes primary research. Any version of a manuscript that has been revised in response to reviewers' comments, accepted for publication or published in the journal should not be posted on a preprint server. Instead, forward links to the published manuscript should be posted on the preprint server.

Authors should retain copyright in their work when posting to a preprint server.

When submitting a manuscript which is also posted on a preprint server, authors should prepare the manuscript in the journal format and disclose the preprint posting information (registered server name, DOI, the type of CC license chosen, etc.).

Referring to preprints (except conference proceedings) are not permitted in principle. If it is absolutely necessary to refer to any preprint, it may be accepted to include it in a footnote in the text.

### **Scooping**

When assessing the novelty of a manuscript submitted to the journal, the editors will not be influenced by other manuscripts that are posted on community-recognized preprint servers after the date of submission to *ISIJ International*.

### **Authorship**

Submission to the journal implies that all authors have seen and approved the author list. After manuscript submission, changes to the author list – such as the insertion or removal of author names, or a rearrangement of author order – must be approved by all authors and the editor.

Authors are encouraged to consider the Council of Science Editors (CSE) [principles governing authorship](#). According to the CSE guidelines (and references therein), each author is expected to have made substantial contributions to the conception or design of the work; or the acquisition, analysis or interpretation of data; or have drafted the work or substantively revised it. Authors have also agreed to be held accountable for their own contributions to the work; can identify which co-authors are responsible for other parts of the work; have confidence in the integrity of the work; and have reviewed and approved the final manuscript and any resubmissions. Contributors who do not qualify for authorship may be included in the Acknowledgements section instead.

In consonance with the position statement of the Committee on Publication Ethics (COPE), the journal does not allow artificial intelligence (AI)-assisted tools/technologies such as Large Language Models (LLMs), chatbots, or image creators to be listed as author or co-author. Those tools cannot be responsible for the accuracy, integrity, and originality of the work, thus they do not meet the criteria for authorship of the journal.

The authors (humans) are fully responsible for any materials of the submitted work, including the use of AI-assisted tools or technologies. Authors should carefully review and edit the result because generative AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased. Authors should not list generative AI and AI-assisted technologies as an author or co-author, nor cite generative AI as an author. Authors (humans) are also responsible for plagiarism including in text and AI-produced images.

Authors must disclose, upon submission and in the corresponding section(s), any use of AI-assisted tools or technologies in the writing of a manuscript, production of images or graphical elements of the paper, or in the collection and analysis of data.

### **Image integrity**

Authors may digitally manipulate or process images, but only if the adjustments are kept to a minimum, are applied to the entire image, meet community standards, and are clearly described in the manuscript. All images in a manuscript must accurately reflect the original data on which they are based. Authors must not move, remove, add or enhance individual parts of an image. The editors reserve the right to request original, unprocessed images from the authors. Failure to provide requested images may result in a manuscript being rejected or retracted.

### **Reproducing copyrighted material**

If a manuscript includes material for which the authors do not hold copyright, the authors must obtain permission from the copyright holder(s) to reproduce it. The authors must supply documentation of this permission.

If a manuscript includes previously published material, the authors must obtain permission from the copyright owners and the publisher of the original work to reproduce it, and/or cite the appropriate license for its use. The authors must cite the original work in their manuscript.

Copies of all reproduction permissions must be included with the manuscript when it is first submitted.

### **Availability of data and materials**

Authors must disclose the source of publicly available data and materials, such as public repositories or commercial manufacturers, by including accession numbers or company details in their manuscript, as appropriate.

Authors may make their own data and materials available by linking via DOI from their manuscript to relevant community-recognized public databases or digital repositories. All data sets must be made available in full to the editors and reviewers during the peer review process, and should be made publicly available by the publisher's version release date. Authors commit to preserving their data sets for at least three years from the publisher's version release date in the journal.

The journal encourages authors to grant reasonable requests from colleagues to share any data, materials and experimental protocols described in their manuscript.

### **Animal/human experimentation**

Authors of manuscripts describing experiments involving humans or materials derived from humans must demonstrate that the work was carried out in accordance with the principles embodied in the Declaration of Helsinki, its revisions, and any guidelines approved by the authors' institutions. Where relevant, the authors must include a statement in their manuscript that describes the procedures for obtaining informed consent from participants regarding participation in the research and publication of the research.

Authors of manuscripts describing experiments involving animals or materials derived from animals must demonstrate that the work was carried out in accordance with the guidelines approved by the authors' institution(s).

### **Author competing interests and conflicts of interest**

In the interests of transparency, the journal requires all authors to declare any competing or conflicts of interest in relation to their submitted manuscript. A conflict of interest exists when there are actual, perceived or potential circumstances that could influence an author's ability to conduct or report research impartially. Potential conflicts include (but are not limited to) competing commercial or financial interests, commercial affiliations, consulting roles, or ownership of stock or equity.

Authors are requested to provide the statement for conflict of interest and should list funding sources for their work in the Acknowledgements section of their manuscript.

### **Confidentiality**

The journal maintains the confidentiality of all unpublished manuscripts. By submitting their manuscript to the journal, the authors warrant that they will keep all correspondence about their manuscript (from the Editorial Office, editors and reviewers) strictly confidential.

### **Self-archiving (Green Open Access) policy**

Self-archiving, also known as Green Open Access, enables authors to deposit a copy of their manuscript in an online repository. The journal encourages authors of original research manuscripts to upload their article to an institutional or public repository immediately after publication in the journal.

### **Long-term digital archiving**

J-STAGE preserves its full digital library, including *Tetsu-to-Hagané* with Portico in a dark archive (see <https://www.portico.org/publishers/jstage/>). In the event that the material becomes unavailable at J-STAGE, it will be released and made available by Portico.

### **Received and accepted dates**

The date when the manuscript is submitted via ScholarOne and assigned an ID is the ‘received date’. The date when the Editorial Board of *Tetsu-to-Hagané* decides to accept the manuscript for publication is the ‘accepted date’.

## **Peer Review Process**

### **Editorial and peer review process**

The journal uses single-anonymized peer review. When a manuscript is submitted to the journal, it is assigned to the Editor-in-Chief, who performs initial screening. Manuscripts that do not fit the journal’s scope or are not deemed suitable for publication are rejected without review. The remaining manuscripts are assigned to an Associate Editor who assigns two reviewers to assess each manuscript. Reviewers are selected based on their expertise, reputation and previous experience as peer reviewers.

Upon receipt of the two reviewers’ reports, the Associate Editor makes the first decision on the manuscript. If a manuscript is deemed to have a good probability of acceptance after minor or major revision, the Associate Editor may ask the authors to revise it accordingly. Otherwise, it may be rejected.

If the decision is to request a revision of the manuscript, authors are requested to return revisions within 3 weeks. After 3 months, revised manuscripts may be treated as new submissions. The Associate Editor may send revised manuscripts to peer reviewers for their feedback or may use his or her own judgement to assess how closely the authors have followed the Associate Editor’s and the reviewers’ comments on the original manuscript.

The Associate Editor then makes a recommendation to the Editor-in-Chief on the manuscript’s suitability for publication. The Editor-in-Chief is responsible for making the final decision on each manuscript.

The members of the Editorial Board act in advisory roles, providing feedback as reviewers and making suggestions to improve the journal. In cases where the Editor-in-Chief is an author on a manuscript submitted to the journal, a member of the Editorial Board is responsible for making the final decision on the manuscript’s suitability for publication in the journal.

### **Reviewer selection, timing and suggestions**

Reviewers are selected without regard to geography and need not belong to the journal’s Editorial Board. Reviewers are selected based on their expertise in the field, reputation, recommendation by others, and/or previous experience as peer reviewers for the journal.

Reviewers are invited within approximately 1 week of an article being submitted. Reviewers are asked to submit their first review within 3 weeks (2 weeks for Short Articles) of accepting the invitation to review. Reviewers who anticipate any delays should inform the Editorial Office as soon as possible.

When submitting a manuscript to the journal, authors may suggest reviewers that they would like included in or excluded from the peer review process. The Editor may consider these suggestions but is under no obligation to follow them. The selection, invitation and assignment of peer reviewers are at the Editor's sole discretion.

### **Reviewer reports**

It is the journal's policy to transmit reviewers' comments to the authors in their original form. However, the journal reserves the right to edit reviewers' comments, without consulting the reviewers, if they contain offensive language, confidential information or recommendations for publication.

### **Acceptance criteria**

It is the responsibility of the *Tetsu-to-Hagané* Editor-in-Chief to maintain and develop the journal's profile and reputation. The Editor-in-Chief has the final responsibility for ensuring that journal content meets the Aims and Scope: articles must present research on iron, steel, or related engineering materials. The presented research must be original, logical, and of scientific and technological merit. The following acceptance criteria underpin the decision on each submission.

To be accepted for publication in the journal, a manuscript must meet several, if not all, of these acceptance criteria:

1. The manuscript provides an original insight into an important issue within the field of iron and steel research.
2. The new insight is a valuable scientific or technological contribution to the field.
3. The new insight is used by the author(s) to contribute to the development of application technologies or fundamental theories.
4. The methods used to produce the new insight are appropriate and described in a way that is understandable across disciplines.
5. The ways in which the data and methods answer the research questions and support the conclusions are explained logically and clearly, and the methods are applied rigorously.
6. The author(s) make clear connections to prior works in the field or from other fields, highlighting the novelty to iron and steel research.

### **Editorial independence**

As the journal owner, the Iron and Steel Institute of Japan (ISIJ) has granted the journal's Editorial Board complete and sole responsibility for all editorial decisions. The ISIJ will not become involved in editorial decisions, except in cases of a fundamental breakdown of the process.

Editorial decisions are based only on a manuscript's scientific or technical merit and are kept completely separate from the journal's other interests.

### **Appeals**

Authors who believe that an editorial decision has been made in error may lodge an appeal with the Editorial Office. Appeals are only considered if the authors provide detailed evidence of a misunderstanding or mistake by a reviewer or editor. Appeals are considered carefully by the Editor-in-Chief, whose decision is final. The guidelines of the [Committee on Publication Ethics](#) (COPE) are followed where and when relevant.



### **Confidentiality in peer review**

The journal maintains the confidentiality of all unpublished manuscripts. Editors will not:

- disclose a reviewer's identity unless the reviewer makes a reasonable request for such disclosure
- discuss the manuscript or its contents with anyone not directly involved with the manuscript or its peer review
- use any data or information from the manuscript in their own work or publications
- use information obtained from the peer review process to provide an advantage to themselves or anyone else, or to disadvantage any individual or organization.

### **Conflicts of interest in peer review**

A conflict of interest exists when there are actual, perceived or potential circumstances that could influence an editor's ability to act impartially when assessing a manuscript. Such circumstances might include having a personal or professional relationship with an author, working on the same topic or in direct competition with an author, or having a financial stake in the work or its publication.

Members of the journal's Editorial Board undertake to declare any conflicts of interest when handling manuscripts. An editor who declares a conflict of interest is unassigned from the relevant manuscript and is replaced by a new editor.

### **Errata and retractions**

The journal recognizes the importance of maintaining the integrity of published literature.

A published article that contains an error may be corrected through the publication of an Erratum. Errata describe errors that significantly affect the scientific integrity of a publication, the reputation of the authors, or the journal itself. Authors who wish to correct a published article should contact the Editorial Office with full details of the error(s) and their requested changes. In cases where co-authors disagree over a correction, the Editor-in-Chief may consult the Editorial Board or external peer reviewers for advice. If a Correction is published, any dissenting authors will be noted in the text.

A published article that contains invalid or unreliable results or conclusions, has been published elsewhere, or has infringed codes of conduct (covering research or publication ethics) may be retracted. Individuals who believe that a published article should be retracted are encouraged to contact the journal's Editorial Office with full details of their concerns. The Editor-in-Chief will investigate the issue and, if the appeal is deemed sufficiently reasonable, contact the authors of the published article for their response on the issue. In cases where co-authors disagree over a retraction, the Editor-in-Chief may consult the Editorial Board or external peer reviewers for advice. If a Retraction is published, any dissenting authors will be noted in the text.

The decision to publish Errata or Retractions is made at the sole discretion of the Editor-in-Chief.

### **Editors as authors in the journal**

Any member of the journal's Editorial Board, including the Editor-in-Chief who is an author on a submitted manuscript is excluded from the peer review process. Within the journal's

online manuscript submission and tracking system, they will be able to see their manuscript as an author but not as an editor, thereby maintaining the confidentiality of peer review.

A manuscript authored by an editor of *Tetsu-to-Hagané* is subject to the same high standards of peer review and editorial decision making as any manuscript considered by the journal.

### **Responding to potential ethical breaches**

The journal will respond to allegations of ethical breaches by following its own policies and, where possible, the guidelines of [COPE](#).

### **Reviewer confidentiality**

As part of their responsibilities, reviewers agree to maintain the confidentiality of unpublished manuscripts at all times. By accepting the invitation to review a manuscript, reviewers agree not to:

- 1) disclose their role in reviewing the manuscript
- 2) reveal their identity to any of the authors of the manuscript
- 3) discuss the manuscript or its contents with anyone not directly involved in the review process
- 4) involve anyone else in the review (for example, a post-doc or PhD student) without first requesting permission from the Editor
- 5) use any data or information from the manuscript in their own work or publications
- 6) use information obtained from the peer review process to provide an advantage to themselves or anyone else, or to disadvantage any individual or organization.

### **Use of Artificial Intelligence (AI)-Assisted Tools/Technologies**

Reviewers are prohibited from uploading the manuscript to software, online translation service, or AI-assisted tools/technologies where the confidentiality is not assured. It is required to disclose to the journal if any AI-assisted tools or technologies are used to facilitate the review. Reviewers should be aware that generative AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased.

### **Reviewer conflicts of interest**

A conflict of interest exists when there are actual, perceived or potential circumstances that could influence a reviewer's ability to assess a manuscript impartially. Such circumstances might include having a personal or professional relationship with an author, working on the same topic or in direct competition with an author, having a financial stake in the work or its publication, or having seen previous versions of the manuscript.

Editors try to avoid conflicts of interest when inviting reviewers, but it is not always possible to identify potential bias. Reviewers are asked to declare any conflicts of interest to the Editor, who will determine the best course of action. The invitation letters sent to reviewers are intended to ensure that the journal fulfills the promise of satisfactorily resolving any conflicts of interest.

### **Copyright, Open Access and Fees**

*Tetsu-to-Hagané* is fully Open Access (OA) and uses Creative Commons (CC) licenses, which allow users to use, reuse and/or build upon the material published in the journal without charge or the need to ask prior permission from the publisher or author.

## Copyright and licensing

Copyrights in this journal are described in the Copyright Regulations of the Iron and Steel Institute of Japan (ISIJ), which is available from the journal's website and as updated from time to time. Authors assign the copyrights (property rights) provided in Articles 21 through 28 of the Copyright Act of Japan to ISIJ in their published article. The copyright transfer is made effective by agreeing to the "Statement of Originality and Submission Information" at the time of submission; the rights revert to the authors if the paper is not accepted for publication.

By the choice of, and in agreement with, the authors, the ISIJ and the journal publish articles under either a Creative Commons BY 4.0 International or Creative Commons BY-NC-ND 4.0 International license, as indicated on each individual article. The licenses are further detailed below. Note that CC licenses are irrevocable, so the relevant conditions cannot be removed after publication

### *CC BY 4.0*

The [CC Attribution 4.0 International](#) (CC BY 4.0) license allows users to share and adapt an article, even commercially, as long as appropriate credit is given.

### *CC BY-NC-ND 4.0*

The [CC Attribution-NonCommercial-NoDerivatives 4.0 International](#) (CC BY-NC-ND 4.0) license allows users to share unmodified articles, non-commercially, as long as appropriate credit is given.

Some funding bodies require articles funded by them to be published under a specific Creative Commons license. Before submitting your work to the journal, check with the relevant funding bodies to ensure that you comply with any mandates.

## Article Processing Charges and other fees

There are many costs associated with publishing scholarly journals, such as those of managing peer review, copy editing, typesetting and online hosting. To cover these costs in the absence of journal subscriptions, authors (or their representatives) are asked to pay article processing charges (APCs). There is no submission fee.

The journal charges 10230 Japanese yen (tax included) per article page for all article types (Regular Articles, Review Articles, Notes, Technical Reports). Authors of accepted manuscripts will be invoiced for the APC before publication of their manuscript.

Color is free online; if authors request color in the print version, the fee is 35648 Japanese yen per page (tax included). More details are available in the Figures section below.

In the event that the authors have not paid the APC or other relevant fees before publication, all processes for any other manuscripts associated with any authors will be suspended until full payment is confirmed by ISIJ.

## Manuscript Submission

All manuscripts must be submitted via the journal's online submission system, ScholarOne: <https://mc.manuscriptcentral.com/tetsutohagane>. The original or revised manuscript text may

be uploaded as a Microsoft Word file, but a Word file is required for the final manuscript text. Figures may be submitted separately in several other formats such as jpg and tif.

If you encounter any problems with online submission, please contact the Editorial Office via the details provided in the Contact section below.

The journal recommends that each author registers his/her Open Researcher and Contributor ID (ORCID). At the time of submission, the corresponding author should ensure that all authors, including himself/herself, have linked their ORCID iDs to their site accounts. The ORCID symbol is displayed next to the registered author's name, which is hyperlinked with his/her ORCID record electronically. [The ORCID page on the journal website](#) provides details regarding the ORCID iD, including the processes to register and link it to the author's site account.

## **Manuscript Preparation**

### **Style and format**

All articles should comprise the following sections: (1) title page (using the application form), (2) synopsis and key words, (3) text, (4) statement for conflict of interest, (5) references, (6) tables and figures, (7) appendices, supporting information, etc.

The Title Page of manuscripts should be filled in with the completed application form, and the other manuscripts should be prepared using the *Tetsu-to-Hagané* template.

In addition to the application form and the template, the following files should also be submitted where applicable:

- (1) high-resolution electronic data files of figures (including graphical abstracts) (if the figures in the template are not clear)
- (2) Electronic data file of the table (if the table included in the template is an image)
- (3) Data file of Supporting Information (if Supporting Information is to be included)

Pages must be numbered consecutively with the Synopsis and Key words as page 1. Additionally, the total size of files uploaded to the online submission review system should be less than 19.5MB, excluding the Supporting Information file.

### **Length**

Authors must adhere to the specified page or word limits. Manuscripts exceeding these limits may be returned to the authors, prior to review, in order to be shortened.

### **Abbreviations**

Each abbreviation should be defined in parentheses together with its non-abbreviated term when it first appears in the text (except in the Title and Abstract).

### **Units**

The standard SI units must be used. Non-SI units should be confined to those that have been approved for use with SI units by the Editorial Board (refer to the [annexed table](#)).

### **Title page**

The Title page should be substituted with the application form (PDF file). Upload the completed application form file to the system before the main Word file.

### **Abstract**

The Abstract must state briefly and clearly the main objective, scope, and findings of the work in English within 250 words. A maximum of 6 key words in English should be included after the Abstract. Abbreviations should not be used for key words.

### **Manuscript text**

The text in Regular Articles must be written in Japanese and include sufficient details to enable the readers to reproduce the results. The appropriate literature should be referred to.

### **Statement for conflict of interest**

Authors are requested to declare any conflicts of interest related to the conduct of this research.

### **Acknowledgements**

This section should be briefly written in Japanese. Authors should list all funding sources for their work in the Acknowledgements section. Acknowledgements of companies or organizations that were asked to proofread or review the manuscript should not be included.

### **References**

References must be numbered consecutively. Reference numbers in the text should be typed as superscripts with a closing parenthesis, for example, Gibbs<sup>1)</sup>, Einstein<sup>2,3)</sup>, and Newton<sup>4-6)</sup>. List all references on a separate page at the end of the text.

- a) All references should be written in English. If there is no official English title, the Japanese title should be written in Hepburnian romanization, and the English translation by the author should be written alongside it in parentheses.
- b) Include the names of all the authors with the surnames appearing last.
- c) In addition, if the language of the reference is other than English, the language must be specified at the end of each reference. For example, if a reference is in Japanese, “(in Japanese)” must be included at the end of the reference.
- d) If the reference has a digital object identifier (DOI), the uniform resource locator (URL) of the DOI must be clearly given at the end as shown in the sample entry. In addition, if the book does not have a DOI but has an ISBN, the ISBN should be listed in place of the DOI.
- e) Citations of general-purpose software manuals are not acceptable.
- f) Including AI-generated material as the primary source in the reference is not allowed. Refer to the following examples for the proper format.

#### *1) Journals*

Use the standard abbreviations for journal names given in the International Standard ISO 4. Give the volume number, the year of publication, and the first page number, URL of the relevant DOI. Examples:

- 1) M. Kato, S. Mizoguchi and K. Tsuzaki: *ISIJ Int.*, **40**(2000), 543.  
<https://doi.org/10.2355/isijinternational.40.543>
- 2) S. Suzuki and K. Suzuki: *CAMP-ISIJ*, **5**(1992), 1433 (in Japanese).
- 3) S. Suzuki and K. Suzuki: *CAMP-ISIJ*, **21**(2008), 111, CD-ROM (in Japanese).
- 4) E.Mazanek and M.Wyderko: *Stahl Eisen*, **89** (1969), 863 (in German).

## 2) Books (Include Proceedings of International Conferences)

Give the title, the volume number, the abbreviated name of the conference title if any, the editor's name if any, the publisher's name, the place of the publisher's headquarters, the year of publication, and the page number, URL of the relevant DOI or ISBN, or if none, the URL in place of the DOI. If the publisher's location is unknown, no entry is required.

Examples:

- 5) W. C. Leslie: The Physical Metallurgy of Steels, McGraw-Hill, New York, NY, (1981), 621. ISBN978-0070377806
- 6) S. Asai: 153rd and 154th Nishiyama Memorial Seminar, ISIJ, Tokyo, (1994), 89 (in Japanese).
- 7) J. Itami and K. Ushioda: Improvements in the Strength and Reliability of Steels, ISIJ, Tokyo, (1997), 98 (in Japanese).
- 8) J. Burke, trans. by K. Hirano and H. Hori: Kinzoku Sohentai Sokudoron Nyumon (The Kinetics of Phase Transformations in Metals), Kyoritsu Shuppan, Tokyo, (1972), 47 (in Japanese).
- 9) Y. Ogawa: Handbook of Iron and Steel, 5th ed., Vol.1, ISIJ, Tokyo, (2014), 249 (in Japanese). ISBN978-4930980809
- 10) Y. Chino, K. Iwai and S. Asai: Proceedings of the 3rd International Symposium on Electromagnetic Processing of Materials, EPM 2000, ISIJ, Tokyo, (2000), 279, CD-ROM.
- 11) A. D. Rollet, U. F. Kocks, J. D. Embury, M. G. Stout and R. D. Doherty: Proceedings of the 8th International Conference on Strength Metals and Alloys, Vol. 1, ICSMA 8, ed. by P. O. Kettunen et al., Pergamon Press, New York, NY, (1989), 433. <https://doi.org/10.1016/B978-0-08-034804-9.50065-6>

## 3) Dissertations

Give the category of the dissertation, the university's name, the degree year, the page number, URL, access date. Example:

- 12) S. Ono: Ph.D. thesis, Tokyo Institute of Technology, (2000), <http://www.titech.ac.jp/Thesespdfs/speck.pdf>, (accessed 2006-02-01).

## 4) Standards

Give standard number: year of designation, article/thesis title. Examples:

- 13) JIS L 1902: 2008, Testing for antibacterial activity and efficacy on textile products (in Japanese).
- 14) ISO 14404-1: 2013, Calculation method of carbon dioxide emission intensity from iron and steel production -- Part 1: Steel plant with blast furnace.

## 5) Websites

URL citations that are judged to be continuous and of reliable public organizations/agencies are permitted only if documents are not officially published or are difficult to obtain. In such cases, provide the (title of the document), the (publication date), URL, (accessed date). Examples:

- 15) T. Tanaka: President's message, the Iron and Steel Institute of Japan, <https://www.isij.or.jp/about/message/>, (accessed 2019-09-25).
- 16) Ministry of the Environment, Government of Japan: White Paper, (Annual Report on the Environment, the Sound Material-Cycle Society and Biodiversity in Japan 2018), (June 5, 2018), <https://www.env.go.jp/en/wpaper/index.html>, (accessed 2019-07-22).

- 17) Agency for Natural Resources and Energy, White Paper, (Annual Report on Energy, FY2018 Annual Report on Energy (Energy White Paper 2019), (June 7, 2019), [https://www.enecho.meti.go.jp/about/whitepaper/2019pdf/whitepaper2019pdf\\_2\\_1.pdf](https://www.enecho.meti.go.jp/about/whitepaper/2019pdf/whitepaper2019pdf_2_1.pdf), (accessed 2020-01-07).

## Appendices

Appendices may be attached as required.

## Tables

- (a) Each table should be prepared using Word functions and placed on a separate page at the end of the *Tetsu-to-Hagané* template.
- (b) Number tables consecutively using Arabic numerals (Table 1, Table 2, etc.).
- (c) A caption should be provided for each table in English.
- (d) Explanatory material and footnotes should be typed below the table and should be designated with superscript letters, such as <sup>a)</sup> or <sup>b)</sup>. Units of measurement should be included with numerical values at the top of columns. Avoid detailed explanations of the experimental conditions used to obtain the data shown in tables (which should be included in the other sections as relevant).
- (e) Table captions should be entered as text in the template.
- (f) If the table data in the template are in the form of an image, then a separate non-image electronic data file should be submitted.

## Figures

- (a) Each figure should be placed on a separate page at the end of the *Tetsu-to-Hagané* template.
- (b) If the figures in the template are not clear, high-resolution electronic data files of figures (including graphical abstracts) should be submitted such that they can be reproduced directly for printing. Note that ‘figures’ include line drawings and photographs, as well as charts.
- (c) Figure captions should be entered as text in the template.
- (d) Magnifications of photographs should be indicated in the captions and/or by scales included in the photographs. When several photographs are shown as one figure, they should be arranged without leaving any space among them and separately identified as (a), (b), (c)... etc.
- (e) Illustrations must be self-explanatory and numbered consecutively with Arabic numerals (i.e., Fig. 1, Fig. 2, etc.). Each figure should have a short title in English. Figure captions should be grouped together in a separate sheet(s). Figure captions should include sufficient experimental details to make the figures intelligible; however, duplicating descriptions provided in other sections should be avoided.
- (f) Figures are usually reduced to fit into one column, which is 84 mm in width; the largest possible size for a figure—110 mm x 84 mm—is equivalent to 250 words.

Figures and tables will be published in color online (at no charge) if the supplied files are in color.

Color printing can be requested for figures and tables dependent upon approval by the editorial board and the payment of color charges. To request color in the print version, mark each relevant figure and table of the manuscript with “color in print”. Pay attention to contrast when submitting color figures and tables for the online version, but black and white in print.

If you want to have your figures and tables in black and white for both the print and online versions, please submit them in black and white.

### **Supporting Information**

Supporting Information adds to a reader's understanding of a manuscript but is not essential. Authors are encouraged to submit supplementary material for online-only publication. Supporting Information in *Tetsu-to-Hagané* comprises a video file, tables and figures and is published online alongside the accepted manuscript.

As Supporting Information is peer-reviewed, authors must submit it in its final form as part of their manuscript submission. After a manuscript has been accepted for publication, authors may not make any changes to the Supporting Information.

Video files, tables, and figures of Supporting Information must be numbered consecutively as "Movie S1, Movie S2, etc.," "Table S1, Table S2, etc.," and "Figure S1, Figure S2, etc.," respectively.

Video files must be supplied in mp4 format, less than 50MB. Authors should include a still image from videos, tables, and figures of Supporting Information, along with numbers and captions, in their manuscript after the figures, tables, and text.

Reference Supporting Information within your text as "Movie S1 (Supporting Information)" at the time of first appearance. "Supporting Information" must be included.

At the end of the main text (before the Acknowledgements, or if there are no Acknowledgements, before the References) add the following statement about the accompanying Supporting Information (The DOI URL is added to the end of the document when it is typeset).

Supporting Information: [briefly describe the content] This material is available on the journal's website.

Remember to upload Supporting Information files to the ScholarOne system.

When an article is published in its final form, Supporting Information will be uploaded as-is without undergoing a proofing process. Supporting Information is not released with Advance Online Publication.

### **Accepted Manuscripts**

Manuscripts that are accepted for publication are copyedited and typeset by the journal's production team before publication. The journal is published 12 regular issues per year and several special issues per year, and continuously online as Advance Online Publication. All communication regarding accepted manuscripts is with the corresponding author.

### **Graphical Abstracts**

In addition to the abstract, authors must submit a figure as a graphical abstract, which will be inserted in the top page of the paper and in the table of contents. The journal's graphical abstracts are published on J-STAGE and in the 'GridList Abstracts' service (see <http://isijgridlistabst.jp/>).

Graphical abstracts should be submitted either as a figure in the manuscript or as an appropriate, non-derivative figure that outlines the contents of the paper. Graphical abstracts, as well as other figures, should be included at the end of the template; additionally, high-



resolution electronic data files and clear figures should be submitted. Figures submitted for graphical abstracts are not allowed to have captions.

Color printing is recommended for the graphical abstract. When submitting a colored figure, the figure generally appears in color in the index and in black and white on the top page of the paper in the print version. If a colored version of the graphical abstract is desired at the top page as well, authors should pay a color charge for the same. The colored figure appears both in the index and at the top page of the paper in the online version.

During the review process, the editorial board will judge the suitability of the submitted figure for use as a graphical abstract.

### **Proofs**

Page proofs are sent to the corresponding author, who should check and return them within 72 hours. Only essential corrections to typesetting errors or omissions are accepted; excessive changes or new material are not permitted at the proofing stage. To avoid delays in publication, the corresponding author must check and return the page proofs by the specified deadline.

### **Reprints**

Reprints can be requested on the application form at the time of submission; reasonable charges apply for reprints and are available at [the journal's webpage](#). The corresponding author will be sent a PDF of the paper on publication.

### **Advance Online Publication of accepted manuscripts**

The accepted manuscript will be published on J-STAGE within one week after the acceptance for the publication. For the AOP version, the accepted manuscript (using the template) is used without modification, editing, typesetting, or proofreading by the corresponding author. The same DOI (Digital Objective Identifier) is given to the AOP version as that for the publication version although the volume and the page numbers are yet to be determined.

### **Contact**

To contact the Editorial Office or the Editor-in-Chief, please write to:

**ISIJ Editorial Office**  
Tekko Kaikan(5F) 3-2-10  
Nihonbashi-Kayabacho  
Chuo-ku, Tokyo 103-0025  
JAPAN

Email: [editol@isij.or.jp](mailto:editol@isij.or.jp)  
Webpage: <https://tetsutohagane.net/>

Fax: +81-3-3669-5934

Created: December 13, 2021

Updated: August 1, 2022

Updated: January 27, 2023

Updated: April 1, 2023

Updated: April 21, 2023

Updated: July 28, 2023

Updated: November 15, 2023

Updated: January 1, 2024

Updated: January 25, 2024