

Communication scientifique, écrite et orale, en langue anglaise

Seventh session

How to publish a paper – Part VII.

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1. Question period

When do you need “Conclusions” and when “Summary”?

What are the rules for writing an “Acknowledgements”?

What kinds of systems are used for references?

How do you cite a paper with one, two, or more authors?

2. Tables

An important difference between Tables and Figures is that the Table heading is put *above* the Table, while a Figure caption is placed *under* the figure. Frequently, the data presented in a Table could have been displayed in a Figure. The latter is more informative.

3. List of figures

The manuscript has to contain a list of figures right after the Appendices. This list contains only the figure captions. This section can be headed by:

“List of figures”, “Figures”, or “Figure captions”.

This section is only needed for the journal to prepare the printing.

Important: The captions have to be identical to the captions put on the figure-pages.

4. Figures

The figures have to be presented on separate pages, one per page and placed at the end of the manuscript. They have to be carefully numbered and the figure captions should be also presented below the figures. The captions are already listed in a separate list, however, to make the Reviewer’s work easier, it is important to repeat them under the figures, at sufficient distances so that they do not disturb the reproduction procedure of the figures when printing is prepared.

Any writing in figures have to readable from the bottom direction or from right. It cannot be otherwise, even if the figure is prepared in landscape layout.

When the paper is printed, figure size is always reduced. Make sure that you use letters big enough to remain visible and well readable, even after a reduction of 50%.

Do not make the figure crowded. If there are more than three lines, it becomes more and more difficult to read the figure. You may consider breaking the figure into two figures.

Easy identification of the lines is very important. There are two possibilities to identify a line: by the format of the line or by using symbols. Avoid using both kinds of identification in one figure. The lines have to be black (if the figure will not be printed in color). Make sure that they are *really* black. Their thickness has to be sufficient to be well visible after reduction of the figure.

5. Page numbering

Each page should be numbered, except the front page (that can be considered as page no. 0, without printing the page number). Front page contains: title, authors, affiliations, abstract, key words.

6. Abstract

The abstract has to be short but still containing all essential points of the manuscript. It is like an extremely short paper.

Example:

Tuning a Self-Consistent Viscoplastic Model by Finite Element Results – I. Modeling

Abstract

The self-consistent model of Molinari, Canova and Ahzi [*Acta Metall.* 35, 2983 (1987)] was modified with the help of the finite element results of Gilormini and Germain [*Int. J. Solids Struct.* 23, 413 (1987)]. The modification implied the introduction of a new scalar parameter in the interaction law of the self-consistent model. In this first part, the model is established and the new parameter is tuned so that the self-consistent predictions and the results of the finite element predictions for a spherical inclusion in an infinite matrix nearly coincide. A simple relation between the new parameter and the value of the strain rate sensitivity index has been found.

7. Typing of the manuscript

The paper has to be carefully typed. Double spacing is preferred (it is usually asked by the journal). The reason for this is to leave enough space for manual corrections and remarks by the Referee or by the Editor.

Avoid leaving any spelling error. If there are serious errors of this type, it will be a proof for the Referee that the Author of the paper did not even read the final version of the paper! Then the question arises: why should the Referee read it? This can be a reason for sending the paper back to the author for better preparation of the manuscript and resubmission.

Do not mix the figures with the text. The figures have to be presented separately, at the end of the manuscript.

In general, make a careful, precise work. The paper is your fingerprint!

Making copies: All journals require more than one copy of the manuscript. When making copies, make sure to have all pages correctly printed in each copy! (Final verification of the manuscript.)

8. The covering letter

You have to write a letter to the Editor of the journal where you would like to publish your paper. This is the so-called covering letter. It can be very short, for example:

Dear Prof. X,

Please find enclosed my paper entitled "title" which I submit for publication in your journal. I am looking forward to hear about its suitability.

Yours sincerely,

A covering letter can also be more substantial, for example:

July 8, 1987

Professor M.F. Ashby, Editor
Acta Metallurgica
University Engineering Laboratories
University of Cambridge
Trumpington Street
Cambridge CB2 1PZ, England

**Re: M/S ENTITLED "EFFECT OF RATE SENSITIVITY ON THE
STABILITY OF TORSION TEXTURES"**

I have been spending my sabbatical year here at McGill working on the physics of torsion testing. (You may recall my earlier paper on torsion published in vol. 34, pp. 1257-1267, 1986). Now I would like to submit my current work, a copy of which is enclosed, for publication in Acta Metallurgica.

It deals with a new way of representing crystal rotations in the form of "tubes" in Euler space which we have called "orientation stability maps". It enables us to explain the positive and negative "tilts" frequently observed in

experimental torsion textures, as well as the shortening of bars that takes place during free end testing at elevated temperatures.

Although I am returning to Hungary for 1-month holidays, I am coming back to McGill for a further year of research. Accordingly, please send any correspondence regarding our paper to the above address.

Yours sincerely,

LSTlljm
Laszlo S. Toth
Visiting Professor

9. The Editor's response

All journals acknowledge the reception of your manuscript. It can happen, however, that it is sent back to you at once because, for example, it does not meet the formal requirements of the journal. Here is an example:

ACTA METALLURGICA
Professor M. F. Ashby, Editor

24 August 1987

University Engineering
Department
Trumpington Street
Cambridge CB2 1PZ
England
Telephone 0223-332773

Professor L.S. Toth
McGill University
Dept of Mining & Metallurgical Engineering
Frank Dawson Adams Bldg
3450 University St West
Montreal
PQ
Canada H3A 2A7

Ms No. 4016

Dear Professor Toth,

I have received your manuscript entitled "Effect of rate sensitivity on the....".

The pressure for publication in Acta Metallurgica is extreme. The Journal is limited to 3,000 printed pages per year; at present I receive manuscripts which total twice this limit, and the receipts are increasing.

The page limit means that a long manuscript, if published, displaces two shorter ones, each worthy of publication. This position forces me to impose a limitation on length of papers in Acta Metallurgica. An average paper is about 10 printed pages. I cannot normally accept manuscripts which will print out at more than 15 printed pages. As a rule of thumb, a manuscript of 20 double-spaced typescript pages in length, plus a typical number of figures (12 or so), reduces to 10 pages. Papers which are longer than this are returned automatically to the authors with a request that they be shortened before they are considered further. Shortening, almost always, is in the author's best interest: readers read short papers.

I am, accordingly, returning your manuscript with the request that you shorten it as far as you possibly can. If you return the shortened manuscript to me, I will arrange to have it reviewed.

Yours sincerely,

Michael F. Ashby
Editor

10. The Referee's opinion

Normally you have to wait quite long for this. The paper is sent to an expert in the field of your paper, who is normally a very occupied professor or researcher. It may take from 2 to 8 months to have an answer. If it is more than 6 months, you are permitted to send a letter to inquire about the status of your paper (not before).

The Referee's opinion is extremely important. It can be nice or very hard. One example of a nice one:

Referee's report on the ms no. 4016
"Effect of rate sensitivity on the stability of torsion textures"
by L.S. Toth, P. Gilormini and J.J. Jonas

The paper is very interesting, well written and well documented. It is suitable for publication in Acta Metallurgica. The text does not need any substantial modifications. I am making only three formal (and unimportant) remarks and one comment.

- 1) In page 3, 2nd paragraph, the argument and the conclusion are correct, but, if I am not wrong, when all the resolved shear stresses are multiplied by α , the shear rates are multiplied by $\alpha^{1/m}$ [instead of α^m] on all the systems in all the crystals, and consequently ϵ is multiplied by $\alpha^{1/m}$ [instead of α^m] and so... Thus $\alpha\Sigma$ is associated with $\alpha^{1/m}E$, and ...
- 2) Ref. 34 repeats ref. 13. It should be eliminated from the ref. list and numbers of refs 34-37 have to be modified (see ms.).
- 3) In p. 16, the sentence "another important generalization is that the rotation vectors are always small inside, but large outside, the tubes in Fig. 4" refers to the OSM tubes, i.e., the tubes containing the most stable orientations. The quoted remark is then so obvious that it should be better deleted.
- 4) I cannot agree with the reasoning of p. 14 about the need of extending the ϕ_1 range to 360 degrees (Paragraph: "The smallest possible section ... for plotting the "S" tubes in Euler space (see below)"). Any orientation of a cubic system is centro-symmetric (although its pole figure, in general, is not centro-symmetric). It is true that for A, A', B or B' orientations X3 is not a two-fold symmetry axis. However X3 is a two-fold axis of rotational symmetry of the torsional specimen (and it remains so all along the test). That means that A and A', related by a rotation $\phi_1 = 180^\circ$ around X3, remain related by the same rotation all along the test

11. Acceptance letter

It is always a pleasure to receive an acceptance letter. Here is an example:

Department
7 March 1988

ACTA METALLURGICA
Professor M. F. Ashby, Editor
University Engineering

Trumpington Street
Cambridge CB2 1PZ
England
Telephone 0223-332773

Professor Laszlo S. Toth
Dept of Metallurgical Engineering
McGill University
3450 University Street
Montreal
PQ
Canada H3A 2A7

Telex 81239

Ms no. 4016

Please quote manuscript number in all correspondence

Dear Professor Toth,

I apologise for the delay in replying to about your paper entitled " Effect of rate sensitivity on the stability of... " but I have now received the report of an independent reviewer, and read it myself. I am pleased to accept it for publication in Acta Metallurgica.

The referee made a number of helpful comments, which I attach. I am therefore returning your manuscript to give you the opportunity to make corrections and changes if you wish to do so. Careful handwritten alterations are acceptable, provided they are clear and unambiguous. When I receive your revised manuscript, I shall forward it to Pergamon Press for publication immediately.

Please send two copies of the revised manuscript together with original figures.

Yours sincerely,

Michael F. Ashby
Editor

12. Special cases

The publication of a paper is not always very smooth. Here is the story of a special case:

a. First letter:

Department of Metallurgical Engineering
McGill University
3450 University Street
Montreal, PQ, Canada H3A 2A7

CSIRA Steel Processing Laboratory
(514)398-4360 Secretariat: 398-4359
Telex 05-268-510
FAX (514) 283-7897

April 11, 1988

Professor M.F. Ashby, Editor
Acta Metallurgica
University Engineering Laboratories
University of Cambridge
Trumpington Street
Cambridge CB2 1PZ, England

Re: M/S ENTITLED "STRESS RESPONSE AND STABILITY
OF THE IDEAL ORIENTATIONS OF SHEAR TEXTURES"

Dear Prof. Ashby,

I have been spending my 'extended' sabbatical leave here at McGill (second year) and am still working on the physics of torsion testing. (You may recall my earlier paper on torsion: M/S 4016, which is in press at the moment.) Now I would like to submit my current work, a copy of which is enclosed, for publication in Acta Metallurgica.

It is related to the former paper, in that it deals with the ideal orientations of shear textures. The main contribution of this work is that it solves for the first time the classical ambiguity problems inherent in rate insensitive theories by the extrapolation of *analytical rate sensitive* calculations to their rate insensitive limits.

I hope you will find this work suitable for reviewing. Please send any correspondence regarding our paper to my McGill address.

Yours sincerely,
Laszlo S. Toth
Visiting Professor

b. The Referee's opinion:

It came together with the Editor's answer:

An understanding of this ms. requires access to 2 papers "in press" [19] and "submitted" [25]. The topic is "stability", and it is not stated or evident why the parameter introduced for it (eq. 23 [19]) is a useful measure for stability. To the uninitiated scientist, all Figures 7 look like saddle points of various kinds: why do the authors state that Fig. 7c indicates stability? At the very least, this needs explaining, and eq. 23 needs at least a qualitative supporting statement.

c. The Editor's letter:

31 August 1988

Prof L.S. Toth
Dept of Metallurgical Engineering
McGill University
3450 University Street
Montreal
PQ
Canada H3A 2A7

Your manuscript number 4305

Please quote manuscript number in all correspondence

ACTA METALLURGICA
Professor M. F. Ashby Editor
University Engineering Department
Trumpington Street
Cambridge CB2 1PZ
England
Telephone 0223-332773
Telex 81239

Dear Professor Toth,

I apologise for the delay in replying to you but I have now received a referee's report on your paper entitled "Stress response and stability of the....." and examined it myself. The referee raises a number of criticisms of the paper, which seem to me to be justified. In view of his comments, I am unable to accept the paper in its present form. I enclose the report from the referee which sets out his criticisms. You may feel that you can revise the paper in a way that deals satisfactorily with these criticisms, although at this stage I cannot give an undertaking that a revised version would ultimately be accepted for publication. I should mention also that if the manuscript is not returned within one year, it will be treated as a new paper.

If you feel that you can comply with these requests, then I would be pleased to give a revised version (two copies please) further editorial consideration. In this instance, could you please also briefly state in your covering letter what changes you have made with respect to each point made by the reviewer.

The pressure on space in Acta Met is extreme: at present I receive twice as much good material as I can publish. I would like to ask you, in addition, to make every effort to shorten your paper where possible, and to limit the number of figures to those which are absolutely necessary.

Yours sincerely

Michael F. Ashby
Editor

d. Second letter:

November 25, 1988
Professor M.F. Ashby, Editor
Acta Metallurgica
University Engineering Laboratories University of Cambridge
Trumpington Street
Cambridge CB2 1PZ, England

Dear Prof. Ashby,

Re: M/S No. 4305

Please find enclosed two copies of the revised version of manuscript no. 4305, entitled "Stress Response and Persistence Characteristics of the Ideal Orientations of Shear Textures" by L.S. Toth, K.W. Neale and J.J. Jonas.

By accident, we had the opportunity to discuss the criticisms with the reviewer - Dr. U.F. Kocks - who we met at the Plasticity Workshop in California in September, where I presented an invited paper on this work. His principal criticism was that we are not entitled to discuss the 'stability' of ideal orientations in torsion because, strictly speaking, these are not immune to perturbations from their symmetry positions. We used 'stability' in the sense that, notwithstanding their technical 'instabilities', these components remain in evidence over large intervals of strain. Nevertheless, in keeping with his suggestion that we use a *rigorous* nomenclature, we have completely changed our terminology related to the 'stability' of these orientations. In the present version, this is replaced by 'orientation persistence'. As for the first part of the paper, which is about an analytical solution of the rate-insensitive as well as rate sensitive cases, there was no need to make any changes. In the second part, we have carried out the following major and minor modifications:

Major changes:

1. We have added a new section, which is about the persistence characteristics of the ideal texture components in *polycrystals*. We present three simulated orientation distribution functions (ODF's) at increasing shear strains. For comparison purposes, one ODF of an experimental texture, measured by Van Houtte and coworkers, is also included in this section.
2. We have completely rewritten the second part of the paper, which was about rotation fields as well as orientation stability. In the present version, we introduce a new map of the divergence/convergence of the rotation field and also present a map of the lattice rotation rate in Euler space. One figure, that of the skeleton lines of the fibres in Euler space, has been left out.

Minor changes:

1. To remain consistent with the altered content of the paper, we have modified its title.
2. As a result of the new maps and ODF's, the number of conclusions is increased from 3 to 4.

We think that the above changes have resulted in substantial improvements to the paper and now satisfy the questions raised by the referee.

We look forward to hearing from you soon regarding the suitability of our paper for publication in Acta Metall.

Yours sincerely,

Laszlo S. Toth
Visiting Professor

e. The acceptance letter:

ACTA METALLURGICA
Professor M. F. Ashby Editor
University Engineering Department
Trumpington ~Street
Cambridge CB2 1P
England
Telephone 0223-332773 Telex 81239

8 February 1989

Professor L.S. Toth
Dept of Metallurgical Engineering
McGill University
3450 University Street Montreal PQ
Canada H3A 2A7

Your manuscript no. 4305

Please quote manuscript number in all correspondence

Dear Professor Toth,

I am pleased to say I have accepted your paper entitled "Stress response and....." for publication in Acta Metallurgica: the proofs will arrive in due course.

I am trying to shorten the time that elapses between acceptance and publication of papers in Acta Met (it is already shorter than most other journals). If you correct your proofs within five days, the interval should not be much more than 5 months. It is important that you check the proofs carefully marking up any

type-setting errors. Please do not make large-scale alterations in your paper at the proof stage. If you do, we will be forced to bill you for the cost of resetting; and your paper will be seriously delayed.

Yours sincerely,

Michael F. Ashby
Editor