

NPG Asia Materials

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ABOUT THE JOURNAL

Aims and Scope

NPG Asia Materials is an open-access, international journal publishing peer-reviewed reviews and primary research articles that cover all aspects of materials sciences. The journal is global in outlook and reach, and its base in the Asia-Pacific reflects the substantial – and increasing – output of materials research from the region. Research summaries and graphical abstracts are provided for all articles and demonstrate the commitment of the journal to reach as broad and wide an audience as possible.

NPG Asia Materials is aimed at an audience of scientists and researchers across the full spectrum of materials research, and publishes articles from physical and chemical sciences, biotechnology and nanotechnology. The journal welcomes high-quality review and research articles from the most rapidly advancing fields that lie at the borders between materials science and engineering and the classical disciplines of physics, chemistry and biology.

The journal features both theoretical and experimental aspects of research in the following areas related to materials science:

- Organic, carbon-based and soft materials
- Biomaterials, bio-inspired materials and biosensors
- Inorganic, ceramic, composite and porous materials
- Metallic materials and alloys
- Optical, photonic and optoelectronic materials
- Electronic, magnetic and superconducting materials
- Energy conversion, catalytic and separation materials
- Nanoscale materials, properties, processes and functions
- Polymer engineering
- Materials theory, computation and modelling

Emphasis is placed on the fundamental novelty of the research, in the sense of novel phenomena, materials or synthetic methods, or novel properties that lead to advanced functionality and applications of previously known materials. Both experimental and theoretical studies will be considered for publication. Studies on synthetic methods should demonstrate the generality of the approach or the advance represented in applying the material to practical devices. Equally, research on advances in methodology, processes or applied device engineering should demonstrate more than an incremental improvement in the existing system and so be of the highest possible interest to our broad readership.

Editorial

NPG Asia Materials is led by Editor-in-Chief, Professor Martin Vacha of the Department of Materials Science and Engineering at the Tokyo Institute of Technology. An international Editorial Committee of Associate Editors recommend decisions to the Editor-in-Chief and a broad subject- and geographically-based Advisory Editorial Board, composed of leading materials science researchers from around the world, supports the management of the journal.

Journal Details

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Martin Vacha

Professor, Department of Materials Science and Engineering

Tokyo Institute of Technology

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Tokyo 105-6005 Japan
Email: am@nature.com

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ARTICLE TYPE SPECIFICATIONS

NPG Asia Materials publishes:

Article

An Article is a novel research study whose conclusions demonstrate a substantial advance in understanding of an important problem and have broad implications across all fields of materials science. Novelty of the research is represented by fundamentally new findings in terms of physics or chemistry of materials, such as novel materials or synthetic methods, or novel phenomena and properties that lead to advanced functionality. Reports on progress in methodology, processes or applied device engineering should demonstrate a substantial and qualitative progress.

Review

A Review is intended to be an authoritative, timely, concise and focused survey of recent developments in an important and growing research field. The approach to possible controversial issues must be balanced, and the scope of a Review should be broad enough so that its content is not dominated by the work of a single laboratory, including the authors' own work. Reviews are usually solicited by the Editor. Authors interested in writing a Review article are encouraged to contact the Editor-in-Chief beforehand with a proposed topic and a brief summary of the paper.

Perspective

A Perspective is a brief personal review and vision of a materials science field or area. A Perspective is expected to assess the current status of the field, identify key advances being made and progress that is needed, and point towards directing future research efforts. Perspectives are solicited by the Editors from leading scientist in their area of research.

Manuscript layout guideline for each article type

Article Type	Abstract	Word Count	Main text components	Display Items	References (maximum)
Article	Max 200 words	6,000	Introduction/ Materials and methods/ Experimental procedures/ Results/ Discussion/ Acknowledgements/ Conflict of interest (if applicable) References	Up to 12 display items (e.g. figures, tables) to be prepared in separate files.	40
Review Article	Max 200 words	8,000	Introduction (if applicable)/Main text/ Acknowledgements/Conflict of interest (if applicable) References	Up to 20 display items (e.g. figures, tables) to be prepared in separate files	80
Perspective	Max 100 words	1,500-4,000	There should be a short introduction, followed by relevant section headings	Up to 5 display items (e.g. figures, tables) to be	20

			and a conclusions' section at the end. The standard footer headings (Acknowledgements, Contributions, Competing Interests, Funding) are required.	prepared in separate files	
Editorial (solicited)	N/A	1,500	No sections	1	20

PREPARATION OF ARTICLES

Please see below for details of the manuscript components.

Cover Letter: Cover letters are NOT mandatory for the initial submission but are helpful to the Editors in assessing the significance and suitability of the manuscript for publication in this journal. The cover letter should state that the material is original, has not been previously published and has not been submitted for publication elsewhere while under consideration. If the manuscript has been previously considered for publication in another journal, the authors are encouraged to include the previous reviewer comments and original manuscript number, to help expedite the reviewing process. Please also include the following information;

- The name, institution and e-mail address of all contributing authors
- Referees to exclude (optional)
- Conflict of interest statement for all authors

Title Page: The title page should bear the title of the paper, the full names of all the authors and their affiliations, together with the name, full postal address, telephone and e-mail address of the author to whom correspondence are to be sent (this information is also asked for on the electronic submission form).

- The title should be brief, informative, of 150 characters or less and should not make a statement or conclusion.
- The running title should consist of no more than 50 letters and spaces. It should be as brief as possible, convey the essential message of the paper and contain no abbreviations.
- Authors should disclose the sources of any support for the work, received in the form of grants and/or equipment and drugs.
- If authors regard it as essential to indicate that two or more co-authors are equal in status, they may be identified by an asterisk symbol with the caption 'These authors contributed equally to this work' immediately under the address list.

Abstract: An abstract of not more than 150–200 words. The abstract should be comprehensible to readers before they have read the paper, and abbreviations and reference citations within the abstract should be avoided.

Introduction: This should give a short, clear account of the background and reasons for undertaking the study. It should not be a review of the literature. The Introduction should assume that the reader is knowledgeable in the field and should therefore be as brief as possible.

Materials and Methods: This section should contain sufficient detail so that all experimental procedures can be repeated by others, in conjunction with cited references. This section may be divided into subheadings to assist the reader. Names of products and manufacturers should be included only if alternative sources are deemed unsatisfactory. Instruments used, as well as standard techniques and procedures applied throughout the work, should appear in a paragraph at the beginning of the Materials and Methods section. Novel experimental procedures should be described in detail, but published procedures should be referred to by literature citation of the original article and published modifications.

Results: The description of results should not simply reiterate data that appear in tables and figures and, likewise, the same data should not be displayed in both tables and figures. The results section should be concise and follow a logical sequence. If the paper describes a complex series of experiments, it is permissible to explain the protocol/experimental design before presenting the results. Do not discuss the results or draw any conclusions in this section. This section may be divided into subheadings to assist the reader. Large datasets or other cumbersome data pertinent to the manuscript may be submitted as supplementary information.

Discussion: Do not recapitulate the results, but discuss their significance against the background of existing knowledge, and identify clearly those aspects that are novel. The final paragraph should highlight the main conclusion(s), and provide some indication of the direction future research should take. This section may be divided into subheadings to assist the reader. Results and Discussion may be combined.

Acknowledgements: These should be brief, and should include sources of financial support, material (e.g. novel compounds, strains, etc.) not available commercially, personal assistance, advice from colleagues and gifts.

Conflict of Interest: Authors must declare whether or not there are any conflicts of financial interests in relation to the work described. This information must be included at this stage and will be published as part of the paper. Conflict of Interest should be noted in the cover letter and in the paper. Please see the Conflict of Interest documentation in the Editorial Policy section for detailed information.

References: Authors are responsible for the accuracy of the references. Only papers directly related to the article should be cited; exhaustive lists of related reading should be avoided. All authors should be included in reference lists unless there are six or more, in which case only the first author should be given, followed by 'et al'. In the text of the manuscript, references to the literature should be numbered consecutively and indicated by a superscript. Each reference should be numbered individually and listed at the end of the manuscript.

The reference list should be double-spaced, and there should be only one reference per number. Only articles that have been published or accepted and waiting for publication (listed as 'in press' following digital object identifier number) should be in the reference list. Reference to 'unpublished data' and 'personal communications' should not appear in the list but should be cited in the text parenthetically only (e.g. Smith A, 2007, unpublished data). Written proof for 'personal communication' and preprint for 'in press' may be requested for review. Journal names are italicized and abbreviated (with full stops) according to the Web of Science Journal Title Abbreviations or Chemical Abstracts Service CPlus Core Journal Coverage List.

Examples of references:

Journal articles

Kim, S.-H., Lee, S. Y., Yang, S.-M. & Yi, G.-R. Self-assembled colloidal structures for photonics. *NPG Asia Mater.* 3, 25–33 (2011).

Journal article - online only

Wang, L., Zhang, Z. & Han, X. In situ experimental mechanics of nanomaterials at the atomic scale. *NPG Asia Mater.* 5, e40. doi:10.1038/am.2012.70 (2013).

Leigh, S. J., et al. A Simple, Low-Cost Conductive Composite Material for 3D Printing of Electronic Sensors. *PLoS ONE*. 7, e49365. doi:10.1371/journal.pone.0049365 (2012).

Journal article - in press

Tanaka, T. U. Chromosome bi-orientation on the mitotic spindle. *Phil. Trans. R. Soc. Lond. B*. doi:10.1098/rstb.2004.1612 (in press).

Journal article - e-pub ahead of print

Szeto, Y., Lee, A., Benzie, I. & Obied, H. Optimized noninvasive procedures to measure DNA damage in comet assay. *Hum. Exp. Toxicol.* (e-pub ahead of print 31 May 2012; doi: 10.1177/0960327112446816).

Book

Pizzi, A. *Handbook of Adhesive Technology* 2nd edn (eds Pizzi, A & Mittal, K. L.) (Marcel Dekker, Inc., New York, NY, USA, 2003).

Chapter in a book

Hyde, S. T. in *Handbook of Applied Surface and Colloid Chemistry* (ed. Holmberg, K.) Ch. 16, 299-332 (John Wiley & Sons, Hoboken, NJ, USA, 2001).

Electronic material

National Institutes of Health. *Genome-Wide Association Studies* (GWAS) (2006). <http://grants.nih.gov/grants/gwas/index.htm>. Accessed 4 January 2007.

Meeting:

Brentjens, R, Riviere, I, Frattini, M, Wang, X, Taylor, C, Olszewska, M *et al.* Marked regression of adenopathy following infusion of autologous T cells. Presented at the 13th annual meeting of the American Society of Gene and Cell Therapy, Washington, DC, 17–22 May 2010.

Patent:

Wilson ST, Oak S, Flanigen EM. US patent 4567029 (1986).

Kuznicki SM, Thrush AK. European patent 0405978A1 (1990).

Figure Legends: These should be brief, specific and appear on a separate manuscript page after the References section.

Figures: For the initial submission, Figures may be embedded within the text of the manuscript or uploaded as separate files. Figures and images should be labeled sequentially and cited in the text. For figures uploaded separately, Figure legends should be submitted on a separate sheet with list of text captions to all figures. Detailed guidelines for submitting artwork can be found by downloading our [Artwork Guidelines](#). The use of three-dimensional histograms is strongly discouraged when the addition of the third dimension gives no extra information. If a table or figure has been published before, the authors must obtain written permission to reproduce the material in both print and electronic formats from the copyright owner and submit it with the manuscript. This follows for quotes, illustrations and other materials taken from previously published works not in the public domain. The original source should be cited in the figure caption or table footnote.

Key Notes for Figure preparation

- Recommended minimum resolution: 300 dpi for colour, 600 dpi for grey scale, 1000 dpi for line art
- Lines should be no thinner than 0.5 point in the actual size.
- Use sans serif typefaces such as Arial or Helvetica in your artwork and when labelling panels.
- Lettering should be no smaller than 6 points in the actual size; size of lettering should be uniform throughout the figure.
- Please refer to the Artwork Guidelines for details of artwork preparation.

File Format for artworks

For Figures, we prefer to use TIFF and EPS files in PC format, preferably from Photoshop or Illustrator software. We can also accept Adobe, native PowerPoint, Word and Excel files, provided that each figure element is editable.

For Tables, please submit tables in (editable) Word or Excel* format. Please avoid setting Table rows in picture format and then saving the document in Word.

*Please ensure any MS Office 2007 files are set to 'compatibility mode' (97 - 2003).

Chemical Structures

The authors should draw chemical structures with ChemDraw™ software. Figures containing chemical structures should be submitted in a size appropriate for direct incorporation into the printed journal. Chemical structures should be drawn using the ChemDraw program with the below setting:

Draw Setting

Font	8pt Arial
Chain angle	120 o
Bond spacing	18% width
Fixed length	14.4pt (0.508cm)
Bold width	2.0 pt (0.071cm)
Line width	0.6 pt (0.0212cm)
Tolerance	3 pt (0.106 cm)
Margin width	1.6 pt (0.056 cm)

Tables: These should be labelled sequentially and cited within the text. Each table should be presented on its own page, numbered and titled. Reference to table footnotes should be made by means of Arabic numerals. Tables should not duplicate the content of the text. They should consist of at least two columns; columns should always have headings. Authors should

ensure that the data in the tables are consistent with those cited in the relevant places in the text, totals add up correctly, and percentages have been calculated correctly.

Tables may be embedded into the word processing software if necessary, or supplied as separate electronic files.

Graphical Abstract:

A graphical abstract, which summarizes the manuscript in a visual way, is designed to attract the attention of readers to the table of contents of the journal. Graphical abstracts are published with Original Articles and Reviews. The graphical abstract may contain chemical structures or images. The graphic should be submitted as a single file using a standard file format (see below). All graphical abstracts should be submitted with a white background and imagery should fill the available width, whenever possible. Please see artwork guidelines for the resolution requirements of the graphic. Graphical abstracts should be accompanied by a textual caption summarizing the main findings of the work in less than 100 words.

Supplementary Information: Supplementary information (SI) is peer reviewed material directly relevant to the conclusion of an article that cannot be included in the article owing to format or length constraints. The article must be complete and self-explanatory without the SI, which is posted on the journal's website and linked to the article. SI may consist of data files, graphics, movies or extensive tables. Please see our [Artwork Guidelines](#) for information on accepted file types.

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- Include a text summary (no more than 50 words) to describe the contents of each file.
- Identify the types of files (file formats) submitted.
- Include the text "Supplementary information is available at (journal name)'s website" at the end of the article and before the references.

Accepted file formats

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- Graphical image files (.gif)
- MPEG movie files (.mpg)
- JPEG image files (.jpg)
- Image tiff files (.tiff)
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- Plain ASCII text (.txt)
- Acrobat files (.pdf)
- MS Word documents (.doc)
- Postscript files (.ps)
- MS Excel spreadsheet documents (.xls)
- PowerPoint (.ppt)
- ChemDraw (.cdx)
- Tex, Latex (.tex)

File sizes must be as small as possible, so that they can be downloaded quickly. Images should not exceed 640 x 480 pixels (9 x 6.8 inches at 72 pixels per inch), but we would recommend 480 x 360 pixels as the maximum frame size for movies. We would also recommend a frame rate of 15 frames per second. If applicable to the presentation of the supplementary information, use a 256-color palette. Please consider the use of lower specification for all of these points if the supplementary information can still be represented clearly. Our recommended maximum data rate is 150 KB/s.

The number of files should be limited to eight, and the total file size should not exceed 8 MB. Individual files should not exceed 1 MB. Please seek advice from the editorial office before sending files larger than the allowed maximum size to avoid delays in publication.

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Additional Notes: House Style for Nature Research Articles

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- Use a coarse hatching pattern rather than shading for tints in graphs.
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- Statistical methods: For normally distributed data, mean (SD) is the preferred summary statistic. Relative risks should be expressed as odds ratios with 95% confidence interval. To compare two methods for measuring a variable the method of Bland & Altman (1986, Lancet 1, 307–310) should be used; for this, calculation of P only is not appropriate.
- Units: Use metric units (SI units) as fully as possible. Preferably give measurements of energy in kiloJoules or MegaJoules with kilocalories in parentheses (1 kcal = 4.186kJ). Use % throughout.
- Abbreviations: On first using an abbreviation place it in parentheses after the full item. Very common abbreviations such as **FFA**, **RNA**, need not be defined. Note these abbreviations: gram **g**; litre **l**; milligram **mg**; kilogram **kg**; kilojoule **kJ**; megajoule **MJ**; weight **wt**; seconds **s**; minutes **min**; hours **h**. Do not add s for plural units.

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Authors submitting a revised manuscript after review are asked to include the following:

- (1) A rebuttal letter, indicating point-by-point how you have addressed the comments raised by the reviewers. If you disagree with any of the points raised, please provide adequate justification in your letter.
- (2) A marked-up version of the manuscript that highlights changes made in response to the reviewers' comments in order to aid the Editors and reviewers. Do not use track changes or comments.
- (3) A 'clean' (non-highlighted) version of the revised manuscript.

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Following the Conflict of Interest heading, there must be a listing for each author, detailing the professional services relevant to the submission. Neither the precise amount received from each entity nor the aggregate income from these sources needs to be provided. Professional services include any activities for which the individual is, has been, or will be compensated with cash, royalties, fees, stock or stock options in exchange for work performed, advice or counsel provided, or for other services related to the author's professional knowledge and skills. This would include, but not necessarily be limited to, the identification of organizations from which the author received contracts or in which he or she holds an equity stake if professional services were provided in conjunction with the transaction.

Examples of declarations are:

Conflict of Interest

The authors declare no conflict of interest.

Conflict of Interest

Dr Caron's work has been funded by the XX. He has received compensation as a member of the scientific advisory board of YY Corporation and owns stock in the company. He also has consulted for ZZ Co. Ltd. and received compensation. Dr Rothman and Dr Jensen declare no potential conflict of interest.

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