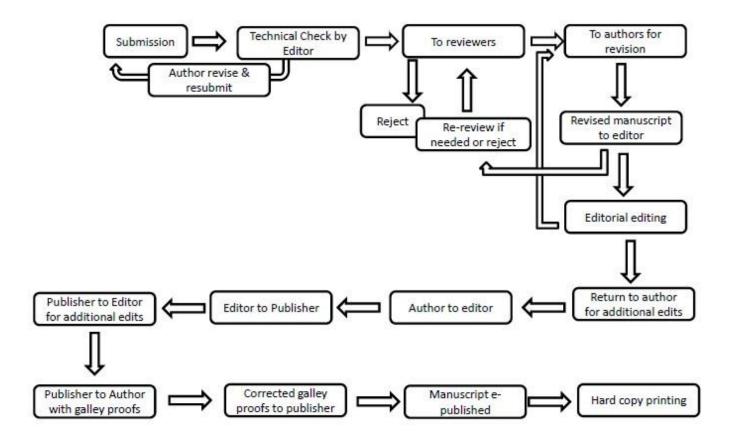




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Wood & Fiber Science Publication Schematic



EDITORIAL and PUBLICATION POLICY

Wood and Fiber Science, as the official publication of the Society of Wood Science and Technology, invites and publishes original papers with both professional and technical content of international interest. The research must focus on the science, processing, and manufacture of renewable biomaterials such as wood or fiber of lignocellulosic origin.

All manuscripts are to be written in US English; the text should be proofread by a native speaker of English prior to submission. Any manuscript submitted must be unpublished work not being offered for publication elsewhere.

Papers will be reviewed by referees selected by the editor and will be published in approximately the order in which the final version is received. Papers will be judged on the basis of their contribution of original data and ideas or interpretation of, or in the case of reviews, on their relevancy and completeness. Upon acceptance and publication by Wood and Fiber Science, a manuscript must not be published again in any form without written consent of both author(s) and editor.

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- 3. The right to use all or part of this article in future works of their own, such as lectures, press releases, reviews, text books, or reprint books.

RESEARCH SUBMISSIONS

How to Submit

- Prepare the following for upload:
- 1. **Initial upload: Manuscript body** (Manuscript Title, Abstract, Keywords, Body, Tables, List of figures, Figures)[Do not place or indicate placement for tables or figures in the Body; DO NOT INCLUDE AUTHORS OR ACKNOWLEDGEMENTS IN ORDER TO ENSURE A DOUBLE BLIND REVIEW]
- 2. Supplemental file: Title page (title, authors, organizations, addresses)
- 3. Supplemental file: Abstract & Keywords
- 4. Supplemental file: Acknowledgements (if applicable)
- 5. Supplemental file: A signed letter certifying that you have funds for the page charges AND that your manuscript has not been published or submitted for publication to another journal.
- Review the CLASSIFICATION FOR REVIEWERS AND MANUSCRIPTS on page 10 to select the
 categories that best describe the classifications for your manuscript. Note the numerical designation
 and include it in your research submission.
- Proceed to <u>Wood and Fiber Science Journal</u> (wfs.swst.org)
- Click the Register button on the top and register to be an author, reviewer, or both
- Once you are registered, you can begin a New Submission
- Add at least 3 <u>classification codes</u> which best describe your manuscript subject matter
- Suggest three reviewers outside your institution(s) and include their email addresses

Format of Manuscript

- Manuscript must be consistent with WFS journal policy.
- Your organization will agree to pay page charges.
- Length of text: 5000 word equivalents
- Manuscript must be submitted in Microsoft WordTM with Line Numbering enabled and numbering restarted on each page. <u>Instructions</u>

TITLE PAGE

Include title, each author's name and title, affiliation, and complete mailing address. See Title Page Example on page 5.

Provide a condensed running head of no more than 60 letters and spaces.

ABSTRACT

Limit to 3% of length of article. A concise, informative results-type abstract suitable for reproduction in an abstracting journal is required.

KEYWORDS

Beneath Abstract, list 5 or 6 keywords relating to major methods or results of study.

BODY TEXT

[Introduction, Materials and Methods, Results and Discussion, Conclusions] In your Introduction make sure you have clearly stated your objectives and/or hypotheses.

REFERENCES

(centered heading, all uppercase). See Reference Examples on page 8.

ACKNOWLEDGMENTS - optional

TABLES

Tables should not be in the text, but should follow References, one table per page.

FIGURES

Figures should not be in the text, but should follow References, one figure per page. A list of figure captions should precede the figures. Figures should follow GUIDELINES FOR FIGURES on page 11.

FOOTNOTES. Avoid use of footnotes

Title Page Example

LABORATORY AND FIELD EXPOSURES OF FRT PLYWOOD: PART 2—MECHANICAL PROPERTIES

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Body of Manuscript

[Introduction, Abstract, Keywords, Materials and Methods, Results and Discussion, Conclusions, Tables, List of Figures, Figures]

- Page Numbers: Required
- Line Spacing: Single-spaced Line numbers: Required
- Font: Times New Roman, 12 pt
- Justification: Left only
- Paragraph Indentation: None
- Length: A suggested limit for the text is 5000 word equivalents.
- *Units*: SI units shall be used; see complete reference in IEEE/ASTM SI-10, and an abbreviated reference in the "Related Material" section of ASTM standard volumes (see SI Units).
- *Style*: Webster's Third New International Dictionary and The Chicago Manual of Style, 15th edition, are useful guides for matters of form, style, and spelling.
- Equations: All equations not within the text must be numbered consecutively.
- *Citations*: Make all references in text by author and year of publication. For three or more authors, cite the first only and use et al.
- Symbols and Abbreviations: Proper symbols: % (not percent); s (not sec); h (not hour or hr) (see Symbols and Abbreviations)
- Numbers: Use proper numbers of significant digits, especially for conversions

Heading Examples

Boldface should be used for all headings.

MATERIALS AND METHODS

[First level headings (_Centered_, CAPS)]

Selection of Wood Samples

[Second level headings (Left margin, title case)]

Specimen preparation. Text, text,

As it should appear in your manuscript (with 3rd order heading):

MATERIALS AND METHODS

Selection of Wood Samples

Specimen preparation. Text, text,

or without the third level heading:

MATERIALS AND METHODS

Selection of Wood Samples

Text, text,

Reference Examples

Make all references in text by author and year of publication. For three or more authors, cite the first only and use et al. List all references alphabetically by first author.

Article: Brandt JP, Shook SR (2005) Attribute elicitation: Implications in the research context. Wood Fiber

Sci 37(1):127-146.

Keyworth R (1958) The mechanics of multi-layer particleboards. Holz Roh Werkst 42(8):419-430.

In German with summary in English.

Book: Sinclair S (1992) Forest products marketing. McGraw-Hill, New York. 403 pp.

Chapter: Leatham GF, Myers GC, Wegner TH, Blanchette RA (1990) Energy savings in biomechanical

pulping. Pages 17-25 in TK Kirk and H-M Chang, eds. Biotechnology in pulp and paper manufacturers, applications, and fundamental investigations. Butterworths-Heinemann, Boston.

Internet: Sassus F, Fournier M, Thibaut B (1995) Longitudinal growth strains and drying shrinkage in tension

wood of poplars (*Populus euroamericana* cv 1214) IUFRO XX World Congress, Tampere, Finland. http://www.metla.fi/conf/iufro95abs/d5pos13.htm. (8 June 1998). [date is when you accessed the

file on the Web]

Part of Vick CB (1996) Hydroxymethylated resorcinol coupling agent for enhanced adhesion to wood.

Proceedings: Pages 47-55 in AW Christiansen and AH Conner, eds Proc Wood Adhesives, 29-30 June 1995,

Portland, OR. Forest Prod Soc, Madison WI.

Thesis: Zhang J (1995) Rational design of dowel joints in case construction. MS thesis, Purdue University,

West Lafayette, IN. 121 pp.

Other: ASTM (1998) D 143-94. Standard methods for testing small clear specimens of timber. American

Society for Testing and Materials, West Conshohocken, PA.

FPL (1999) Wood handbook - Wood as an engineering material. Gen Tech Rep FPL-GTR-113.

USDA For Serv Forest Products Laboratory, Madison, WI. 463 pp.

Anon (2000) Statistical report '99, Floor Covering Weekly 47(19), Garden City, NJ.

Kayihan F (1990) Method of perfusing a porous workpiece with a chemical composition using

cosolvents. US Patent 5,094,892.

Kelly MW (1977) Critical literature review of relationships between processing parameters and physical properties of particleboard. Gen Tech Rep FPL-GTP-10 USDA For Serv Forest Prod Lab,

Madison, WI. 24 pp.

SPPS (1996) TableCurve™ 2D, SPSS Iinc. Version 4.06. Chicago, IL.

Arnold D (2002) President. Arnold Forest Products, Co. Shreveport, LA. Personal communications

with T Shupe on 25 October 2002.

Multiple Publications by the same author

The references below are cited in the text as Schimleck et al; those with the same year must be identified with a, b, c, etc.

Schimleck LR, Evans R, Ilic J (2001a) Application of near infrared spectroscopy to a diverse range of species demonstrating wide density and stiffness variation. IAWA J 22(4):415–429.

Schimleck LR, Evans R, Ilic J (2001b) Estimation of Eucalyptus delegatensis wood properties by near infrared spectroscopy. Can J For Res 31(10):1671–1675.

Schimleck LR, Evans R, Matheson AC (2002a) Estimation of Pinus radiata D. Don clear wood properties by near-infrared spectroscopy. J Wood Sci 48(2):132–137.

Schimleck LR, Evans R, Ilic (2002b) Application of near infrared spectroscopy to the extracted wood of a diverse range of species. IAWA J 24(4):429–438.

Abbreviations for frequently cited publications

Use the Institute for Scientific Information (ISI) list of journal abbreviations: http://www.efm.leeds.ac.uk/~mark/ISIabbr/

| Wood Fiber Sci | Forest Abstr | J Polym Sci | J Mater Sci |
|------------------|--------------|----------------|------------------------|
| Wood Sci Technol | Pulp Pap Sci | Wood Sci | Sven Papperstidn |
| Forest Prod J | NZ For Sci | Agric Hdbk | Can Wood Preserv Assoc |
| Forest Genet | Silvae Genet | Aust J Bot | Proc Royal Soc London |
| Holz Roh-Werkst | Mater Org | J Testing Eval | USDA Gen Tech Rep |

Symbols and Abbreviations

Don't confuse abbreviations with unit symbols, for example "sec" vs "s"

Time units: use "s" as the symbol for seconds, not sec (which is an abbreviation); h instead of hours or hr, da instead of day or days, wk instead of weeks, mo instead of months, yr instead of years

Symbols are not pluralized (kg, not kgs); kg is lower case

There are no periods after symbols (except at the end of a sentence)

The use of "M" for 1000 is obsolete; M is mega- (1 000 000); k is 1000 (and not capitalized)

Avoid multiple prefixes: pF, not µµF; nm, not mµm

For multiple symbols, use the "dot" connector between <u>all</u> symbols: $N \cdot m$, not Nm, N-m, or N.m, and $W \cdot m^{-2} \cdot K^{-1}$ or $W/(m \cdot K)$

There should always be a space between the number and the unit symbol (10 mm, not 10mm)

Close spaces for % and °C: 25% and 25°C

Abbreviate Figure or Figures as Fig or Figs, except at the start of a sentence

Leave out periods for Fig, eg, ie, et al, etc

Leave out symbols for ranges: 10 - 20%; 10 - 20°C

CLASSIFICATION FOR REVIEWERS AND MANUSCRIPTS

Do not use Main Headings; only subheadings

MECHANICAL PROPERTIES

10.100 BASIC PROPERTIES

10.200 FRACTURE MECHANICS

10.300 NONDESTRUCTIVE TESTING

10.400 STRUCTURAL GRADING

10.500 CREEP/DOL

10.600 SEISMIC

PHYSICAL PROPERTIES

20.100 DIFFUSION/PERMEABILITY

20.200 MOISTURE/DRYING

20.300 DIMENSIONAL STABILITY

20.400 THERMAL

20.500 ACOUSTICAL

20.600 COLOR

20.700 NONDESTRUCTIVE EVALUATION

DEGRADATION/TREATMENT

30.100 PRESERVATION

30.200 FIRE RETARDATION

30.300 DECAY

30.400 INSECT ATTACK

30.500 COMBUSTION

30.600 MARINE

SURFACE PROPERTIES

40.100 ADHESION

40.200 FINISHING

40.300 COATINGS

40.400 SURFACE ACTIVATION

WOOD/FIBER CHARACTERISTICS

50.100 GROWTH PROPERTIES

50.200 ANATOMY/ULTRASTRUCTURE

50.300 WOOD QUALITY

50.400 FIBER QUALTIY

ROUNDWOOD

60.100 LOGS

60.200 POLES

60.300 HARVESTING

LUMBER

70.100 SOFTWOOD (STRUCTURAL)

70.200 SOFTWOOD (REMANUFACTURE)

70.300 HARDWOOD (STRUCTURAL)

70.400 HARDWOOD (REMANUFACTURE)

70.500 TROPICAL WOODS

COMPOSITES

80.100 PLYWOOD

80.200 OSB

80.300 MDF

80.400 PARTICLEBOARD

80.500 INORGANIC

80.600 STRUCTURAL COMPOSITE LUMBER

80.700 WOOD PLASTIC/POLYMER COMPOSITES

80.800 NON-WOOD BIO-BASED COMPOSITES

OTHER PROCESSING/PRODUCTS

90.100 PULP

90.200 PAPER

90.300 APPEARANCE PRODUCTS

90.400 MOLDED PRODUCTS

90.500 FURNITURE

ENVIRONMENTAL ISSUES

100.100 CERTIFICATION

100.200 GREEN STRUCTURES

100.300 LCI/LCA

100.400 PROCESSING EMISSIONS

100.500 CARBON SEQUESTRATION

100.600 ENERGY PRODUCTION

BIOMASS CHEMISTRY

110.1 LIGNOCELLULOSIC CHEMISTRY

110.2 ENERGY PRODUCTION

110.3 BARK CHEMISTRY

110.4 ADHESIVES

OTHER

120.1 GENETICS

120.2 EDUCATION

120.3 HUMAN PERCEPTION

120.4 MARKETING

120.5 OPERATIONS RESEARCH

120.6 ECONOMICS

120.7 BIOMASS, PRODUCTION & UTILIZATION

120.8 NANOTECHNOLOGY

GUIDELINES FOR FIGURES

Preparing Figures for Publication

In recent years, the *WFS* editorial staff has encountered numerous problems with electronic files submitted for publication, and an inordinate amount of time has been spent attempting to convert files into a usable format. Due to the high cost of the electronic-to-print process, it has become necessary for us to require authors to submit manuscripts and figure files in a closely defined format.

Instructions: The following instructions for preparing figures to be printed in *WFS* must be followed carefully. Failure to do so may result in return of the manuscript or in additional charges beyond the standard *WFS* page charges.

Glossary: Before reading these instructions, it would be a good idea for you to read the definitions in the Glossary. Glossary terms appear in **bold** as clickable links to definitions.

Color: The *WFS* is primarily printed in black and white and the page charge rate is calculated on the basis of black and white printing. Unless there is a very compelling reason to request color printing of certain figures, and you are willing to pay the extra charge for color printing, all figures should be prepared in black and white format only.

Figure Composition

- **Typeset**: Figures will be typeset in one of three sizes: 1 column (20.3 picas; approx. 3.5 in.); 1-1/2 columns (29 picas; 4.5 in.); or 2 columns (42 picas; 7 in.).
- Fonts: Use Arial or Helvetica fonts for labeling of axes, etc. Be sure that the font size will be no less than 8 point when the figure is reduced to its final size.
- Extraneous text: Titles or labels not absolutely necessary for understanding the figure should be removed and explained in the caption. Do not include page numbers, figure numbers, or figure captions within the boundaries of a figure.
- Scales or axes should not extend beyond the bounds of the plotted data.
- Line weight: Be sure that all lines in a figure are heavy enough to withstand substantial reduction; choose rule weights that are 0.5 point or more at a size of 4 by 4 inches. If lines are less than 0.5-point-thick, they may "drop out" after reduction. Hairline rules should not be used; choose bold lines (do not choose the thinnest line available in whatever program you are using).
- The style in figures should be consistent with the text, including capitalization and SI usage.
- Units of measure: Place units of measure for axis labels in parentheses after the label (e.g., Growth (%) not Percent growth).
- **Symbol Key**: Keys to symbols, if needed, should be kept as simple as possible and be positioned so they do not needlessly enlarge the figure (i.e., placed inside the figure in an open area if possible).
- **Symbols**: Use solid symbols for plotting data if possible. Size symbols so that they will be distinguishable when the figure is reduced.
- Color vs. Grayscale: If your figures were originally prepared in color, with different colors representing different values, the likelihood is great that when the files are printed in black and white, the contrast necessary to differentiate the data will be lost. Whenever possible, use different patterns of hatching instead of gray levels to differentiate between values in a figure. If that is not possible, be sure to use gray levels between 20 and 80 percent with at least a 20 percent difference between the levels of gray.

File Formats

Photographs (Continuous Tone Figures)

- Continuous tone figures (e.g., photographs) should be submitted as TIFF files at a minimum resolution of 300 dpi for an original figure size of not less than approximately 4 by 4 inches.
- If the images were taken with a digital camera, save or export the images to a 300 dpi TIFF file.
- If your only option is to save the image as a JPEG file, be sure to save it with the least amount of compression (highest quality) setting.
- Submit separate TIFF files; do not place image files in a Word document.
- Include a lightly labeled printout of the image for comparison purposes.
- If it is not possible to submit an electronic file, you must provide high-quality prints, made from original negatives, and printed on a matte coated stock, for scanning. You will have to pay an extra charge if we must scan prints.

Line Art (Vector Graphics)

If you *created* your line art (vector graphics, such as drawings, graphs, charts) in a drawing program (e.g., Illustrator, CorelDraw, FreeHand, etc.), you will likely be able to save them as EPS files.

If you are unable to save/export the line art as EPS files, then save the files as high-resolution TIFF files (900 to 1200 dpi).

Submit separate EPS or TIFF files; do not place files in a Word document.

Include a lightly labeled printout of the artwork for comparison purposes.

If you *created* the line art in Word, Excel, or PowerPoint, you can produce PDF files using the specific instructions for saving PDFs that can be found in current Microsoft Office software. If those instructions are followed carefully, the figures should be acceptable for printing. Include a lightly labeled printout of the artwork for comparison purposes.

Combination Figures

• When artwork contains both text and continuous tone elements (combination figure), it should be submitted as a TIFF file (resolution of 500 to 900 dpi).

Color Figures

- Color reproduction is very expensive. The charge to the authors is \$400 for the first and \$250 for each subsequent figure. If you do not want these in color, the publisher (at no charge) makes every effort to reproduce color figures in acceptable gray scale. Alternately, you may want to redo figures in gray scale.
- Color photographs should be submitted as TIFF files in CMYK color mode (not RGB) at a
 minimum resolution of 300 dpi for an original figure size of not less than approximately 4 by
 4 inches. If the images were taken with a digital camera, save or export the images to a 300
 dpi TIFF file.
- If your only option is to save the image as a JPEG file, be sure to save it with the least amount of compression (highest quality) setting.
- Submit separate TIFF files; do not place image files in a Word document.
- Include a labeled printout of the image for comparison purposes.

A Note about Color

Before deciding to use color for figures, authors should be aware that it is costly since presses must be changed to run color.

Printed article: \$400 for the first color figure and \$250 for each subsequent one. Online version only: \$20 per color figure

PAGE CHARGES

Articles are accepted for publication on the basis of scientific or technological merit. The publication cost is \$100 per page for members of SWST and \$135 per page for non-members. Changes in proof will be billed to the author at \$3.00 per line. Folded inserts, envelope inserts, and colored illustrations can be printed only when paid for by the author.

GLOSSARY

Bitmap – A method for representing graphical images in which the image is composed of rows and columns (a grid) of dots (pixels).

Bitmap image – An image stored in a pixel-by-pixel format. To display a bit-mapped image on a monitor or print it on a printer, the computer translates the bitmap into pixels (for display screen) or ink dots (for printers). Bitmap images are often referred to as raster graphics.

BMP (*.bmp) – Windows bitmap is the native format for Microsoft Paint. It is not well supported by other operating systems and should not be used.

CMYK – Cyan, magenta, yellow, and black. A model used to represent color in print, known as a subtractive color model. Color is reproduced by the reflection of light off of ink pigments. Although the full color spectrum can be represented just with CMY, true black cannot be produced in the printing process due to impurities in the CMY inks, so black (K) is added.

Combination figure – Artwork that contains both text and continuous tone elements (e.g., an annotated photograph). **Continuous tone** – An image composed of a range of color or shades of gray (e.g., a photograph). These types of images cannot be described mathematically and instead are described pixel-by-pixel in a bitmap.

Encapsulated PostScript [EPS] (*.eps) – Graphics file format used to transfer PostScript image information from one program to another. It encodes vector artwork as a series of mathematical expressions, allowing vector artwork to be stored and re-sized without affecting resolution.

GIF (*.gif) – Graphics interchange format. A file format for displaying images on the web. GIF includes data compression but is limited to 256 colors. It should not be used for images that will be printed.

Grayscale – An image composed of black, white, and intermediate shades of gray. There are 256 shades of gray in a grayscale image.

Hairline rule – A specified rule that will reproduce at the finest resolution of the output device. Hairline rules should not be used for printing.

Halftone – A continuous tone image, such as a photograph, that has been converted into a black and white image. Halftones are created through a process called dithering, in which the density and pattern of black and white dots are varied to simulate different shades of gray. In conventional printing, halftones are created by photographing an image through a screen. Halftones are used since the printing process cannot print the fine gradations of ink required for continuous tone.

JPEG (*.jpg/*.jpe/*.jpeg) – Joint Photographic Experts Group. A type of compressed file particularly suited for storing continuous tone bitmap data such as photographs on the web. JPEG is a lossy compression technique that is designed to compress color and grayscale continuous tone images. The user typically has to compromise on either the quality of the image or the size of the file. JPEG does not work well on line drawings, lettering, or simple graphics because there is not a lot of the image that can be thrown out in the lossy process, so the image loses clarity and sharpness.

Line art – Any image composed of lines and text, such as graphs, charts, and illustrations. Best saved in a vector format (such as EPS).

LZW – Short for Lempel-Zif-Welch, LZW is a lossless compression algorithm for data compression that conserves disk space without sacrificing any data in the image.

PDF (*.pdf) – Portable document format. A file format for representing the visual aspects of pages, and for certain other information about those pages, independent of the software, hardware, and operating system used to create them and independent of the output device on which they're to be displayed or printed. Created and maintained by Adobe Systems. **Pixel** – Short for picture element, a pixel is a single point in a graphic image.

Postscript – Instead of using pixels (as in bitmaps) or mathematical expression (as in vector graphics), Postscript is a programming language that describes the shapes, lines, spaces, positions, fonts, colors, and other features of a page.

RGB – Red, green, blue. A color model used to represent color on computer screens. Known as an additive color model, the colors on screen are produced by additive amounts of light passing through a range of pigments.

Standard fonts – Common fonts that can be found on all computer systems. For maximum clarity it is recommended that Arial or Helvetica (sans-serif fonts) be used for labeling figures, and Symbol be used for Greek, Latin, and other characters. Uncommon fonts may not be supported on all computer systems and may cause problems in the printing process.

TIFF (*.tif) – Tagged image file format. A widely supported format for saving bitmap images. It can store images in color (CMYK and RGB) and grayscale, and supports LZW compression. This is the recommended format for storing continuous tone images (i.e., photographs). If it is used to store line art, the images must be saved at 900 dpi or higher resolution.

Vector graphics – An image that is composed of mathematically defined geometric shapes - lines, objects, and fills. Vector graphics may include text, graphs, or illustrations. Vector graphics are more flexible than bitmap images because they can be scaled; they are resolution independent. Vector graphics are typically saved in EPS format.

WMF (*.wmf) – Windows metafile format. A Microsoft Windows format usually used for interchange of image data between various Windows software programs and rarely used as a final format.

ZIP (*.zip) – A derivative of LZW, Zip is a popular data compression format commonly used for compressing and archiving files in Microsoft Windows environments.