

## Your Title Goes Here with 16-Point Bold Arial Font

First A. Author,<sup>a</sup> Given Name Surname,<sup>a,\*</sup> 12-Pt\_TNRoman Font,<sup>b</sup> and  
Fourth D. F. Author<sup>c</sup>

Your abstract, in 10-point Arial font, indented 0.5 inches, having a maximum length of 200 words (ideally 150 words), goes here. The abstract briefly summarizes your main findings, using terms that are understandable to a general scientific audience. Briefly summarize the context and the significance of the findings, describing how your results contribute to the field of science and potential or actual applications. Remember that the journal's audience is multidisciplinary. Acronyms are discouraged in the Abstract. Special characters are not permitted. The present document has been set up to serve as a template for the format of your own research article that you are submitting for publication in *BioResources*. It is recommended to start with a fresh copy of this template document, save a copy of a new version of it, and then replace the contents with your own contents.

*Keywords: Format; Author guidelines; TNRoman 10-point italic; Up to 10 brief terms*

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## INTRODUCTION

Skip one line after each major heading (as shown here, but not after subheadings). Indent all paragraphs. Your introduction should provide sufficient background in your topic area so that the reader will be able to understand the context and importance of your research findings. The text should be justified at the right margin, in addition to the left margin. The first few paragraphs of your research article should lay out the motivation and importance of the work and show how the work relates to other recent advances in science or technology. The explanations should be sufficiently broad so that scientists and technologists who are unfamiliar with your subject area can gain an appreciation of how your research results might be applied, if they are further developed and successfully implemented.

Subsequent paragraphs are indented also. Your introduction should make reference to key publications, emphasizing work that is most relevant to your research results (Bell *et al.* 1954; Chu and Knoll 2003; Mallouk 2004a; Cook 2013). The format of the citations should match the system used in *J. Water Resources Planning and Management*. Notice the form in which different kinds of citations appear at the end of the article (Adams and Spencer 2001; Arunkumar 2002; Bannix *et al.* 2003; Maminski *et al.* 2015; Montoya 2015). Within parenthetical citations, references are listed in chronological order, reverting to alphabetical order when they contain the same year.

Italics should be used for Latin words and contractions (*i.e.*, *viz.*, *e.g.*, *et al.*, *etc.*), for journal titles (*J. Phys. Chem.*), and for genus and species (*Pinus taeda*). Make sure to

51 define acronyms and abbreviations when they are first utilized, *e.g.*, scanning electron  
52 microscopy (SEM).

53 Manuscripts must be prepared and submitted in one of the following editable  
54 formats: MS WORD (using either the “doc” or “docx” suffix), or Open Office Writer  
55 (any version). The purpose of requiring one of these formats is to facilitate the editing  
56 process and minimize the time between submission and publication. For purposes of the  
57 review process, the editorial staff will convert drafts to portable document format (PDF)  
58 files. In cases where the editors recommend a revised version to be submitted, the revised  
59 document, once again, needs to be submitted in one of the editable text systems listed.

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62 the material in the Header and the Footer; the editorial staff will take care of those items  
63 after an article has been reviewed, any issues raised by the reviewers have been  
64 satisfactorily addressed, and the article has been approved for publication. Authors are  
65 responsible for formatting all of the pages, including accurate formatting of the title,  
66 author list, the abstract (including indentation), key words, main headings (as provided),  
67 optional subheadings, text, figures, graphs, and citations. All of these must match the  
68 format of the examples shown in this template article.

69 Except in the case of review articles, it is recommended that introductory material  
70 be kept suitably brief, usually between one and three pages. Reviewers will be required to  
71 answer a question about whether your article can be improved by shortening, and the  
72 editors will act upon such recommendations. An exception will be made in cases where  
73 the background material of an article includes a substantial advance in theory that needs  
74 to be explained for the first time.

75 It is recommended that the overall length of a research article submitted for  
76 publication in *BioResources* be between 6 and 25 pages, still with the understanding that  
77 a majority of articles as long as 25 pages probably can be improved in quality by  
78 judicious culling and rewriting. The editors reserve the right to accept even longer articles  
79 in cases of exceptional quality, novelty, and importance of the work.

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### 81 **Subheading in 12-point Arial Bold**

82 Use subheadings sparingly to set off different subject matter, especially in parts of  
83 your article that extend beyond one page in length. Notice that the subheading is in “Title  
84 Case,” with major words capitalized.

85 Skip 2 spaces before a major (**ALL CAPS**) heading, and one space after, as  
86 shown below.

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## 89 **EXPERIMENTAL**

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### 91 **Your Subheading, e.g., Materials**

92 Provide sufficient detail so that another researcher in your field would be able to  
93 repeat the work. Brand names of chemicals and other materials are to be mentioned once  
94 in the Experimental section, where appropriate, to make it possible for future researchers  
95 to obtain the same starting materials or equipment. Brand names are not to be used  
96 elsewhere in the article, including the Abstract or the Conclusions sections. Rather,  
97 authors should employ appropriate generic nomenclature, chemical names, or descriptive  
98 names. Alternatively, the Experimental section may include a table in which brand name

99 products or devices are assigned suitable generic labels based on their chemical  
100 composition. Please see the Editorial Policies on the website regarding the non-  
101 commercial, scientific nature of items to be submitted to *BioResources*.

102 Please include the supplier's name and location (City, Country) for all specialized  
103 reagents, equipment, and software.

104

105 *Your third-level heading*

106 In case you want three levels of headings, please use non-bolded italics, with a  
107 Times New Roman 12-point font for the lowest level headings. Capitalize only the first  
108 word in the heading.

109

110 *Another third-level heading*

111 Most articles are likely to have only two levels of headings.

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### 113 **Equations**

114 Sometimes it is appropriate to show an equation in the Introduction,  
115 Experimental, or Results and Discussion section. Here is an example of Eq. 1,

$$116 \quad E = mc^2 \quad (1)$$

117 where *E* is energy (kJ), *m* is mass (kg), and *c* is the speed of light (m/s). Note that the  
118 variables are in italics; the equation is left-indented with one tab. The units are included  
119 when the variable is defined.

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### 121 **Test Standards**

122 All test standards used should be referenced in the Experimental section. In-text  
123 citations should include the year of publication. For example, you may choose to cite the  
124 TAPPI T222 om-11 standard (2011), ISO 9087 (1998), ASTM D570-098 (2010), and  
125 GB/T 2677.20 (1995). See the References Cited for the correct formatting.

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### 127 **Your Subheading, e.g., Methods**

128 Because *BioResources* is intended for a broad range of readers, authors are  
129 encouraged to provide brief background explanations of experimental procedures and  
130 theories that, though well known to some, may not generally be well known to a random  
131 group of college-educated people having an interest in biomass utilization technology.

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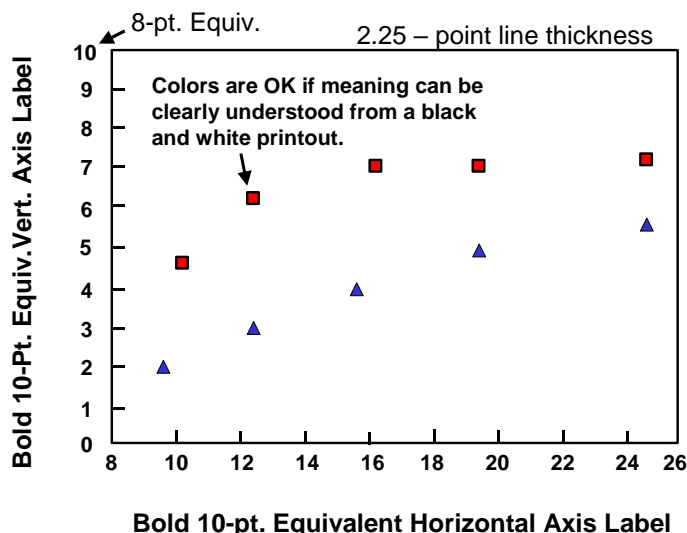
## 134 **RESULTS AND DISCUSSION**

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136 Results should be presented clearly and concisely. Please use past tense when  
137 describing the work that was carried out. For example, "Four milliliters of NaOH solution  
138 (0.1 N) was added...". Present tense can be used when making a statement that the  
139 authors believe to have general validity, especially when supported by other publications.  
140 For example, "The addition of NaOH increases the swelling of this type of lignocellulosic  
141 material (Chu and Knoll 2003)." Please use your best judgment when using other verb  
142 tenses to clearly convey your intended meaning.

143 Note that the term "significant" usually implies statistical significance. If this is  
144 your intended meaning when discussing your results, please include a description of your

145 statistical analysis in the Experimental section. Otherwise, please use the terms  
 146 “noticeable”, “remarkable”, “major”, *etc.*, to indicate important changes in results.  
 147



148  
 149 **Fig. 1.** Example of a figure, prepared so that the axis labels are near to the size of the  
 150 surrounding text. Note that the caption is 10-point Arial font with left justification.  
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152 Authors are encouraged to use figures or tables, whichever are the most  
 153 appropriate, to clearly elucidate the research findings. The graph above (Fig. 1) shows the  
 154 expected format of plotted information in terms of the following parameters. The vertical  
 155 and horizontal labels should be prepared in bold Arial font of a suitable size so that they  
 156 appear in the page view with a size equivalent to a 10-point font or somewhat larger in  
 157 the final view (noting that this present text is in 12-point Times New Roman font).  
 158 Number axis labels can appear somewhat smaller, *e.g.*, equivalent to 8-point font.  
 159 Although colors are encouraged, graphics must be prepared so that symbols and lines  
 160 show up clearly in a black-and-white printout, and they should remain clearly  
 161 differentiated from each other in such a format. Authors will have control of both the size  
 162 and positioning of figures, although the example shown below can be used for general  
 163 guidance. Figures or tables should be placed close to the location where they are first  
 164 mentioned in the text.

165 The next set of results is reported in tabular form. The following table serves as a  
 166 representative example of how the heading and the remaining table might appear,  
 167 depending on the nature of the data. Note that “title case” format, with capitalization of  
 168 major words, is used for the table headings. Notes and abbreviations are listed below the  
 169 table. Tables should fit within the page margins, *i.e.*, they are aligned with text on both  
 170 sides. All rows of the table should fit on one page. As appropriate, results should be  
 171 discussed and interpreted in the context of other published work.  
 172

173 **Table 1.** Example of Tabular Results (12-point Arial here)

Biomaterials In (kg)	Parameter A *	Parameter B	Bioproduct Out (kg)
0.0	8.3	0.2	0.0
30.2	9.7	99.3	0.5

35.8	10-point Arial here	-46.8	0.6
42.6	6.1	5.0	0.7
52.6	7.3	0.1	0.7
* This parameter normalized according to the procedure of Mallouk (2004b)			

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**Notes about References Cited**

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Authors are requested to take whatever time is needed to format the References cited section (at the end of the article) accurately in the format of the examples given. Please do not use EndNote® or other citation management software. All of the authors should be listed, unless there are more than ten of them. As can be seen, there are somewhat different systems used in case of a journal article, a book, a chapter in an edited book, a paper in a proceedings, or an item from the Internet. The names of scientific journals either can be spelled out completely or abbreviated using the forms in common use, but please be consistent. Journal abbreviations can be found at <https://www.library.caltech.edu/journal-title-abbreviations>.

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**CONCLUSIONS**

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219 **REFERENCES CITED**

220

221 Adams, B. A., and Spencer, P. G. (2001). "Title of chapter," in: *Textbook of*  
222 *Miscellaneous Information*, B. S. Peesley (ed.), McGraw Hill, New York, NY. DOI:  
223 10.1093/occmed/kqs192

224 Arunkumar, T. (2002). *Final Technical Government Report of the GMXT Project*,  
225 Environmental Protection Agency, (<http://www.epa.gov/gmxt.htm>).

226 ASTM D570-98 (2010). "Standard Test Method for Water Absorption of Plastics,"  
227 ASTM International, West Conshohocken, PA.

228 Bell, E. R., Peck, E. C., and Krueger, N. T. (1954). *Modulus of Elasticity of Wood*  
229 *Determined by Dynamic Methods* (Report No. 1977), U. S. Department of  
230 Agriculture, Forest Products Laboratory, Madison, WI.

231 Chu, X. C., and Knoll, M. (2003). "Utilization of wood-derived biomass as a liquid fuel  
232 source: Part 2," *J. Biotechnol. Bioenergy* 12(2), 153-162. DOI: 10.1016/0144-  
233 4565(90)90070-Z

234 Cook, J. R. (2013). *Amine Functionalization of Bacterial Cellulose for Targeted Delivery*  
235 *Applications*, Master's Thesis, University of Western Ontario, London, ON, Canada.

236 GB/T 2677.20 (1995). "Fibrous material - Determination of holocellulose,"  
237 Standardization Administration of China, Beijing, China.

238 ISO 9087 (1998). "Wood determination of nail and screw holding power under axial load  
239 application," International Organization for Standardization, Geneva, Switzerland.

240 Mallouk, J. G. K. (2004a). "Meeting the coming energy challenge through green  
241 technology," *Biotechnol. Biomass Acta* 34(4), 334-358. DOI:  
242 10.1016/j.rser.2014.01.025

243 Mallouk, J. G. K. (2004b). "Further progress in meeting the coming energy challenge  
244 through green technology," *Biotechnol. Biomass Acta* 34(5), 403-418. DOI:  
245 10.1007/s12155-013-9372-x

246 Maminski, M., Parzuchowski, P., Borysiuk, P., and Boruszewski, P. (2015).  
247 "Hyperbranched macromolecules as modifiers of urea-formaldehyde resins," in:  
248 *Proceedings of the Wood Adhesives 2009 Conference*, Lake Tahoe, NV, pp. 424-426.

249 Montoya, I. (2015). "Fencing," (<http://www.keepusingthatword.com>), accessed 28 July  
250 2015.

251 TAPPI T222 om-11. (2011). "Acid-insoluble lignin in wood and pulp," TAPPI Press,  
252 Atlanta, GA.

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254 Article submitted: