

Research Paper/

## **Title Must Be Less Than 100 Characters and Spaces**

Note: Including the most pertinent keywords in the title is a good idea – 75% of search engines focus on title and abstract.

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Author 2

Add institution, town, state or province, country and email address.

Author 3

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**Conflict of interest:** None.

**Key words:** These should be selected with Internet searches in mind. For case studies make sure to include the area of the study here.

1 **Article Impact Statement:** *The Article Impact Statement (<140 characters + spaces)*

2 *means to promote the article rather than offer an abstract with factual information.*

3 (The sentence in italics above is exactly 140 characters and spaces! It should

4 convey why the article should be read or how the results affect groundwater

5 knowledge.)

6

7 **Abstract** <example section heading type: bold 14 point>

8 The abstract is a single paragraph of no more than 250 words. It should include the

9 scientific contribution or research hypothesis in your paper, the primary methods

10 or approach, and a brief summary of the conclusions. Only a Research Paper,

11 Methods Note, Issue Paper, Review Paper, Case Study Paper, and Rapid

12 Communication in *Groundwater* have an abstract. Note: 75% of search engines  
13 focus on the Title and Abstract, hence make sure to include your keywords here!

14

15 **Introduction** <example section heading type: bold 14 point>

16 Your manuscript should be developed using the word processor MS Word or typeset  
17 program LaTeX. If you elect to use another word processor make sure it can  
18 successfully write .doc or .docx files (MS Word files). The font size of the entire  
19 manuscript should be 12 point, but section titles are to be given a larger font or be  
20 bold faced or both. Note: *Groundwater* has **no section numbering!** Instead,  
21 distinguish between sections and subsections by using different font sizes, for  
22 instance, as done in this example manuscript. Starting with the abstract the  
23 manuscript should be double spaced, thus the line spacing must be set to 2!

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32 are mandatory and will be included with the online version of the published paper.  
33 It is critically important to use *relevant keywords* that will facilitate Internet  
34 searches and make your paper *better cited!* Make sure that the Title and the

35 Abstract combined include all of your relevant keywords – 75% of search engines  
36 scan only title and abstract.

37

38 **Content of introduction** <example subsection heading type: bold 12 point>

39 Use this Introduction to:

- 40 1. Provide background information on the topic of your paper.
- 41 2. Clearly define the scientific contribution or hypothesis to be tested in this  
42 paper.
- 43 3. Optionally end with a brief overview of how your paper is organized, hence  
44 what the reader may expect in the various sections (2 or 3 sentences).

45 It is critically important that you define the contribution of your paper early on in  
46 the Abstract, in the Introduction, and in the Conclusions. After you submit your  
47 manuscript for the first time the Editor-in-Chief will be scanning it for this  
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49 further review (~30% of the manuscripts are declined outright) or whether to  
50 assign your manuscript to an Executive Editor for peer review. The essence of your  
51 paper is its *scientific contribution* (or however you want to define its value to the  
52 readers of *Groundwater*) and it must appear front and center in the Abstract,  
53 Introduction, and Conclusions of your manuscript!

54

55 Your review of the literature should be comprehensive, but *relevant*. Excessive self-  
56 citations appear self-serving and should be avoided. Also, keep in mind that you are  
57 publishing in the journal *Groundwater* and that omitting to cite truly relevant

58 publications in *Groundwater* is, of course, an affront to the readers and editors of the  
59 journal. Citations in the text are by author(s) name and year (e.g., Jones 1999) or  
60 (McBride 2001a and 2001b) or (Sauter and Kovacs 2003; Smith et al. 2014) where  
61 in case of more than two authors the form “et al.” is used. Note that there is no  
62 comma after the name! Also note that a semi-colon separates multiple citations  
63 between parentheses.

64

### 65 **Research method**

66 In this section you present how you went about testing your research hypothesis or  
67 how you went about collecting the data that you analyzed. It may also be a section in  
68 which you present the mathematical model or equations used to arrive at your  
69 results and conclusions. (Equations should be numbered, using parentheses around  
70 the numbers, and placed to the right of the equation.) Do not elaborate on standard  
71 procedures (reference the literature instead), but focus on what is uniquely  
72 different in your methodology.

73

### 74 **On the length of your manuscript**

75 In writing this and all other sections of your manuscript, keep in mind that you are  
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77 elaborate report to a select audience. *Groundwater* is page-limited and the  
78 “footprint” of your paper should also be limited. As a frame of reference, a Research  
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82 850 words, not counting tables and figures. For instance, if the word count of your  
83 finished manuscript is 10,000 or more and you have also some figures and tables,  
84 the published paper will likely exceed 15 published pages. Keep in mind that a  
85 shorter paper, closer to 10 pages or less, will be better read!

86

### 87 **Analysis or Results**

88 In this section you present the analysis or analyses you conducted on the data you  
89 collected in the field, in the laboratory, or from the literature. Alternatively, this  
90 may be the section in which you provide the results of your mathematical modeling  
91 or calculations.

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### 93 **Tables**

94 Tables are to be embedded in the text, also at the time of submitting the final  
95 manuscript for typesetting. Tables in *Groundwater* do not use vertical lines. Limit  
96 use of horizontal lines to above and below the entire table and below column  
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118 **Units**

119 Units may be metric, SI, or U.S. customary (English). If English units are used in the  
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122 test. These conversions are not needed in tables or figures.

123

124 **Discussion**

125 This section may or may not be relevant to your work, but it is often good to provide  
126 a synthesis of your research results clearly outlining the strengths and weaknesses  
127 of your work prior to drawing your final conclusions. This is also the place to  
128 compare your results with previous findings, *hence substantiating your contribution*  
129 to the field of groundwater science and engineering.

130

### 131 **Summary or Conclusions**

132 Clearly restate your research hypothesis or research objective and then succinctly  
133 present your findings. Depending on the nature of your work and the content of the  
134 previous section you may be *summarizing* your findings here or presenting your  
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137 sure it does your work full justice! Note: This is *not* the place to discuss new  
138 information not already presented elsewhere in the paper.

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### 140 **Acknowledgments**

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204 analysis that is not published elsewhere and is needed to judge the validity of an  
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216

217 **References**

218 The journal *Groundwater* changed the spelling of its name from *Ground Water* to  
219 *Groundwater* in January of 2013. References to papers in *Groundwater* that precede  
220 this date may use either spelling.

221 Papers that have been published online in Early View, but not yet in a particular  
222 volume and issue, may be referenced by their DOI number, see the fictitious 2014  
223 paper below. Including a DOI number and/or a link is desirable, but optional. Note,  
224 all references below are, of course, entirely fictitious papers.

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