

# Springer Guide

## How to interpret the results using CrossCheck / iThenticate?



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# 1 Introduction

iThenticate can be used to cross-check a journal submission against thousands of published articles in their database. It highlights text passages that a submitted journal article shares in common with previously published material.

Please note that only content from CrossCheck members is available in the CrossCheck database. Content is continually added.

Generally all major publishers are members, but if you wish to know whether a particular publication is included in the database, please visit the following link: <http://www.ithenticate.com/plagiarism-checker-database-content/> and complete the 'search scholarly journals' at the end of the page:

**SEARCH SCHOLARLY JOURNALS**

**Important!** iThenticate simply checks for text similarity by comparing documents. It makes neither legal judgments nor legal recommendations.

Using text similarity screening software can save authors embarrassment, if for example the duplication was unintentional. It is designed to make Journal Editors aware of this important issue and to help identify situations that can be remedied in advance of publications. The results of the software and the guidelines in this document do not substitute legal advice. If in doubt about the legal impact please contact your legal counsel or department.

Similarity Reports are available in two viewing modes: “**Text-only**” and “**Document Viewer**”. The Document Viewer (DV) shows the submission in its original format including figures and tables. The Text-only Report is the default report and through this viewing mode access is gained to the Document Viewer Report .

## 2 Text-only Report

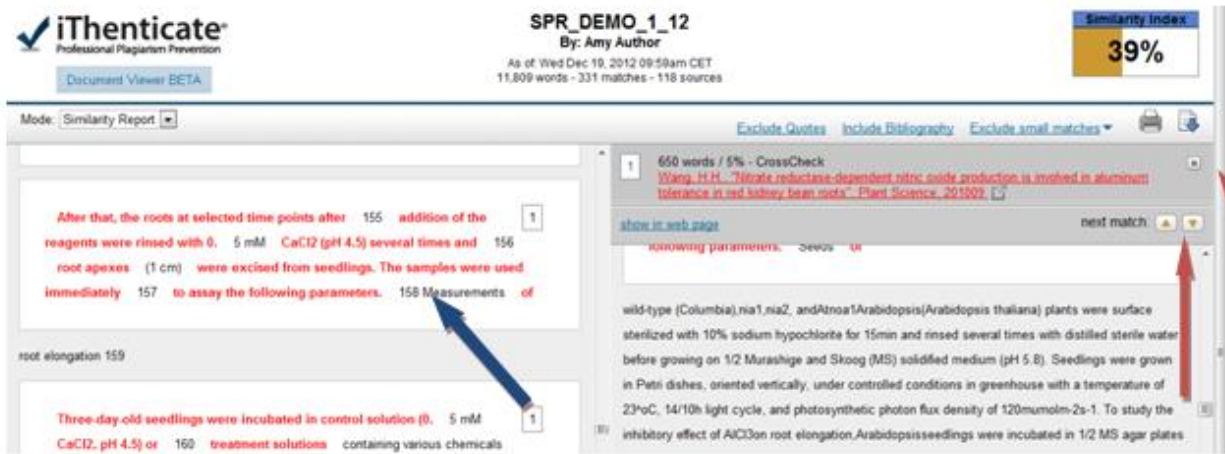
There are 4 viewing modes in the Text-only Report which can be selected in the drop down list:

**Similarity Report** – the default report for new submissions, showing the highest matches within the matching sources.

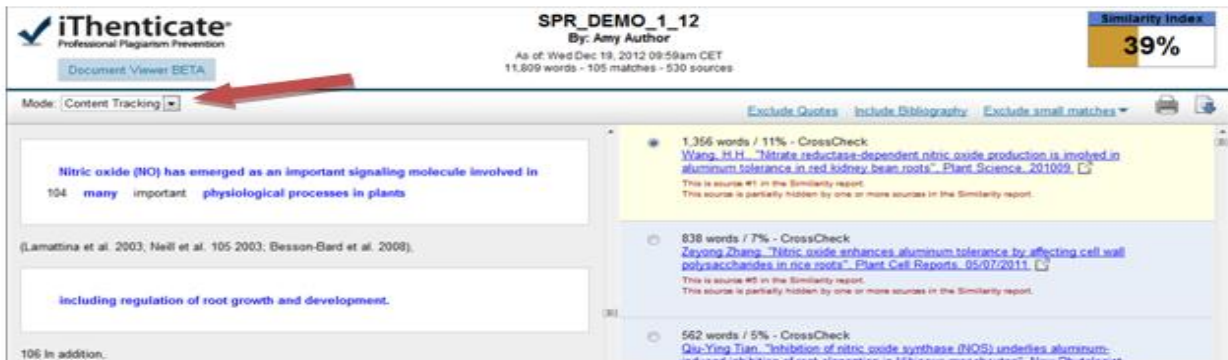
The screenshot shows the iThenticate interface for a document titled "SPR\_DEMO\_1\_12" by "Amy Author". The similarity index is 39%. A red arrow points to the "Mode" dropdown menu, which is currently set to "Similarity Report". The report displays a list of matches with details such as word count, percentage, and source information.

Match ID	Word Count	Percentage	Source
1	650 words	5%	CrossCheck Wang, H.H., "Nitrate reductase-dependent nitric oxide production is involved in aluminum tolerance in red kidney bean roots". Plant Science, 201009.
2	244 words	2%	Internet from Mon-Jul 12, 2010 joh.oxfordjournals.org.
3	222 words	2%	CrossCheck Y. Bi., "Glucose-6-Phosphate Dehydrogenase Plays a Pivotal Role in Nitric Oxide-Involved Defense Against Oxidative Stress Under Salt Stress in Red Kidney Bean Roots". Plant and Cell Physiology, 01/19/2007.
4	204 words	2%	CrossCheck Qiu-Ying Tian, "Inhibition of nitric oxide synthase (NOS) underlies aluminum-induced inhibition of root elongation in Hibiscus moscheutos". New Phytologist, 4/2007.

If you would like to compare the two manuscripts next to each other, click on the highlighted text on the left hand side of the screen (blue arrow on the left). Once both manuscripts are displayed, use the arrows on the right hand side to hop from match to match (lower red arrow on the right). To get back to the whole list of matches, click on the small grey check box.



**Content Tracking** – this mode shows matches one at a time, e.g., makes individual comparison of sources possible.



**Summary Report** – a simple, printable list of the matches found.



**Largest Matches** – this report shows the percentage of words that are part of a matching string of words

**iThenticate**  
Professional Plagiarism Prevention

**SPR\_DEMO\_1\_12**  
By: Amy Author  
As of: Tue Aug 14, 2012 11:27am CEST  
11,809 words - 264 matches - 13 sources

Similarity Index: **39%**

Mode: Largest Matches

Wang H.H., Huang J.J., Bi Y.R. (2010)  
Nitrate reductase-dependent nitric oxide production is involved in aluminum tolerance in red kidney bean roots. 1

Plant Sci 179: 281-288.

Xiong J., An L., Lu H., Cheng Z. (2009) Exogenous nitric oxide enhances cadmium tolerance of rice by increasing pectin and hemicellulose contents in root cell wall. Planta 230: 755-765. 2

Zhang Z.Y., Wang H.H., Wang X.M., Bi Y.R. (2011)  
Nitric oxide enhances aluminum tolerance by affecting cell wall polysaccharides in rice roots. 2

1,301 words / 11% - CrossCheck  
Wang, H.H. "Nitrate reductase-dependent nitric oxide production is involved in aluminum tolerance in red kidney bean roots". Plant Science, 201009. 1

284 words / 2% - CrossCheck  
Zeyong Zhang. "Nitric oxide enhances aluminum tolerance by affecting cell wall polysaccharides in rice roots". Plant Cell Reports, 05/07/2011. 2

244 words / 2% - CrossCheck  
J. L. Yang. "Aluminum resistance requires resistance to acid stress: a case study with spinach that exudes oxalate rapidly when exposed to Al stress". Journal of Experimental Botany, 02/21/2006. 3

239 words / 2% - CrossCheck  
J. H. Liu. "Polyamine biosynthesis of apple callus under salt stress: importance of the arginine decarboxylase pathway in stress response". Journal of Experimental Botany, 07/07/2006. 4

188 words / 2% - CrossCheck  
M. Arasimowicz-Jelonek. "Interaction Between Polyamine and Nitric Oxide Signaling in Adaptive Responses to Drought in Cucumbers". Journal of Plant Growth Regulation, 04/22/2009. 5

### 3 The Document Viewer Report

When logging on the first view is the regular Text-only Report view. To access the Document Viewer (DV) click on the Document Viewer BETA button.

**iThenticate**  
Professional Plagiarism Prevention

**SPR\_DEMO\_1\_12**  
By: Amy Author  
As of: Wed Dec 19, 2012 09:59am CET  
11,809 words - 419 matches - 156 sources

Document Viewer BETA

Mode: Similarity Report

Plant and Soil Involvement of putrescine and nitric oxide in aluminum tolerance by modulating citrate secretion from roots of red kidney bean

–Manuscript Draft– Manuscript Number: Full Title: Article Type: Keywords: 111  
Corresponding Author:

784 words / 6.6% - CrossCheck  
Wang, H.H. "Nitrate reductase-dependent nitric oxide production is involved in aluminum tolerance in red kidney bean roots". Plant Science, 201009. 1

252 words / 2.1% - CrossCheck  
Y. Bi. "Glucose involved in aluminum tolerance in rice roots". Plant Cell Reports, 05/07/2011. 2

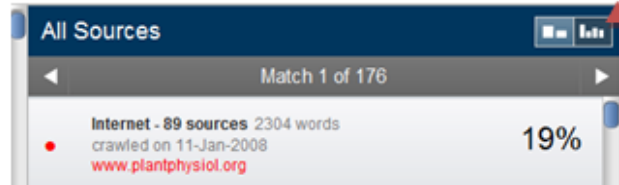
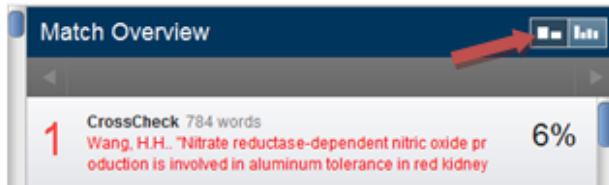
If you want to go back to the Text-only Report, click on Text-Only Report at the bottom in the right hand corner.

Text-Only Report

The system will remember which Report view was used last. When logging on it will automatically take you to that last viewing mode.

Differences with the Text-only Report:

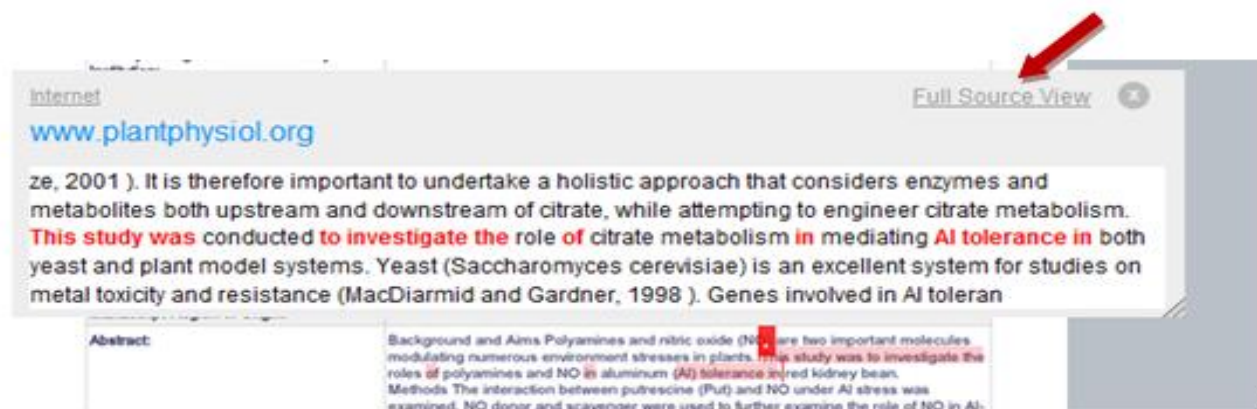
- Reduction to two viewing modes:
  - Match Overview (which is similar to the *Similarity Report* in the Text-only viewing mode).
  - All Sources (which is similar to the *Content Tracking* in the Text-only viewing mode)



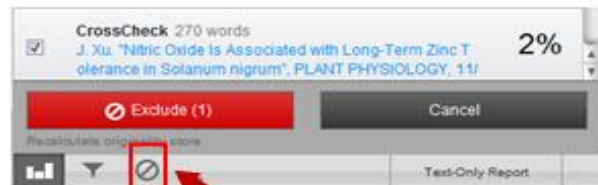
- The sources are clearly marked as “Internet” source or “CrossCheck” source. The latter concerns literature available in the CrossCheck database. Clicking on the bullet point under “Internet” will show a break-down of URL’s crawled at multiple times. Hovering over the percentage after the source will show an arrow. Clicking on the arrow will take you to the source.



- A side by side view will first show a pre-view of the matching text. Clicking on Full Source View will show the full source and the matches therein.

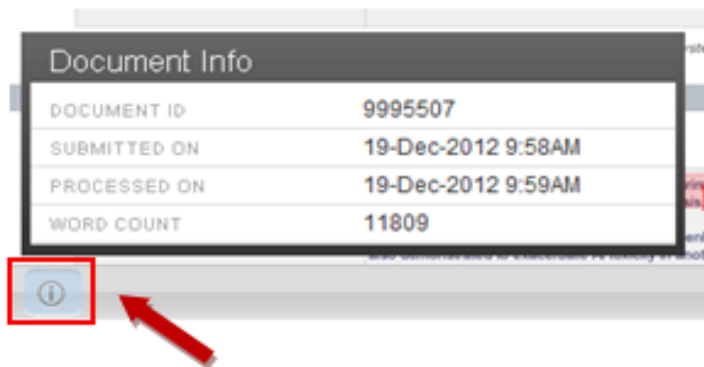


- Sources can be excluded by clicking on the button “Exclude Sources”. By ticking the box in front of a source, the source is excluded. To view and/or edit excluded sources click on the icon in the bar. Tick the box in front of the source and click on Restore.
- A filter can be used to exclude quotes, exclude bibliography and/or exclude matches of X number of words.



words.

- The icon in the left hand corner will give detailed information about when the document is submitted, processed and the number of words.



## 4 The similarity results

The results generated by iThenticate are simply a guide for use with new submissions and will show passages that are found matching in previously published material. It still takes a human eye to decide how significant the match is.

## 5 Matches for already published articles

If you are uploading an article that has already been published, the Content Tracking mode must be used. (The Similarity Report will not work here as it will show a nearly 100% match, since it will match the article against the content in the database, which will also include the already published article. Due to formatting issues, the percentage will never show a 100% match but this match will override all others.) The Content Tracking mode allows you to view all other matches.

## 6 Limitations

iThenticate cannot compare:

- 2 preselected manuscripts against each other
- an article against a selected subset of articles
- figures and tables (*this applies to the DV as well*)
- text in different languages

## 7 The similarity percentage

The similarity percentage reports the total number of matching words found in the paper divided by the total word count of the paper.

## 8 How to read the percentages?

There is only a concern if the similarity check:

- Detects a substantial amount of text in the paper that has been duplicated from one or more original sources, and/or
- The text from the original source is not cited in the paper

A high similarity percentage should be further investigated for:

### **Text from Many Individual Sources**

How many individual sources are linked to this paper? The best way to check this is to use the Content Tracking mode in iThenticate. A paper with single sources where each source shows similarity of only 1-5%, is generally showing no sign of potential plagiarism, provided that the majority of the paper is not made up of borrowed strings of material.

### **High Percentage from a Single Source**

Some papers with a low overall similarity percentage can have a high percentage from a single source, for example, the overall percentage is 15%, but 12% is coming from one single source. Generally, the individual sources should not give figures higher than 10%. If the figures are higher, then the level of similarity should be checked carefully to establish whether the copied material is posing a problem or not.

It is therefore proposed that each journal editor checks all submissions over a certain period of time to find out what is normal for that journal and/or discipline.

For example: all submissions with an overall similarity percentage of 10 or 20% are quickly screened via the similarity check or may be ignored at some point once it appears that for this journal, submissions show a normal pattern. Anything above 20% is checked via the Content Tracking mode to make sure that the low percentage is not masking papers with a higher similarity. Anything above 45 or 50% is checked more carefully using the Similarity Report followed by Content Tracking.



## 9 Types of plagiarism

The following factors that may be helpful in distinguishing types of plagiarism (identified by COPE (2011) and slightly modified):

- Extent
  - Does the similarity concern a few words or a few sentences, whole paragraph, several paragraphs, large parts of a paper or a whole paper?
- Originality of copied material
  - Does the submission contain technical language and/or standard phrases to describe materials, methods and/or procedures?
  - Is the similarity related to the author's own work?
  - Does the submission contain uncited reuse of previously published material?
  - Is verbatim material enclosed in quotation marks?
- Position / context / type of material
  - Abstract: A large match in the abstract is a tip off that something could be amiss with the article.
  - Key words: If, next to the abstract, the keywords show a high level of matching words then this also tells you to look at the submission more carefully.
  - Materials and Methods / Procedures: There are only so many ways in which this part of an article could be phrased. It should be checked whether the overlap concerns a standard procedure that cannot be rephrased. At the same time, taking whole paragraphs and simply finding and replacing one word is not acceptable.
  - Results and/or Discussion / Conclusions: A match in this area could be an indication of plagiarism or duplicate/redundant submission.
- Referencing / attribution
  - Is the similarity related to work that has been properly cited in the submission?

## 10 Potential pitfalls

It should be taken into account that scholarly works often summarize the work of other researchers and any boundaries between what is legitimate representation and what is copying original material are therefore difficult to set.

A few pitfalls defined by Wager in a COPE discussion paper (2011) that may occur:

- **Review articles:** Review articles are expected to give a summary of existing literature. Authors should use their own words with exception of properly quoted and/or cited texts and the work should include a new interpretation.
- **Updating of systematic reviews:** "An updated review, naturally, contains large sections from the previous versions and this may appear to be plagiarism if the authors have changed (and iThenticate will not recognize acknowledgements to previous versions)." (Wager, 2011)
- **Is referencing enough or should quotation marks be used:** Generally, referencing is not enough. If it indeed concerns verbatim copying, no matter how small the text, quotation marks need to be used.
- **Copying out of flattery or 'homage' to an author:** It is never acceptable in international academic publications to copy the work of others without appropriate attribution and quotation marks.

- **‘Patch writing’ or ‘microplagiarism’:** iThenticate will show many ‘dislocated’ matches, e.g., many individual sentences or parts of sentences coming from many different sources. The sources of the copied text are usually not referenced. This form of duplication is considered somewhat acceptable if it is minor and when it concerns materials, methods and/or procedures. But is not acceptable if the majority of the paper has been lifted from elsewhere.
- **Self-plagiarism:** This may not seem a problem, but dependent on the amount of duplication, could lead to copyright problems with publishers. Further, every journal has the right to expect that new and novel information is being presented to further the science.

In all cases editors should consider the consequences of the duplicated passages and its potential to mislead readers.

**Important!** Collect all the facts before making a decision.

## 11 Actions to take if a paper appears to contain duplicated text

Every case is different and therefore decisions will vary per case. Ask yourself the following question: Does it concern an honest mistake or is there an intentional deviation from the scientific norm? Please note there are many grey areas between honest, questionable and fraudulent practices.

Whilst reviewing the case consider the following factors:

- Author seniority. Junior authors may be asked to paraphrase the copied text if it is believed that they are genuinely not aware that copying phrases is inappropriate. It is expected that a senior author should know better.
- Cultural background could be an indication for potential different behaviors concerning the amount of copying which could be seen as plagiarism.
- An author may have permission to duplicate already-published text.

### 11.1 *Minor overlap in text:*

If only a small section of a submission is showing similarity (the copied text could be verbatim copying or close copying, i.e., not quite verbatim, but changed only slightly from the original), and it is clear that there is no intention to deceive, the manuscript should be returned to the authors with a request to rewrite the plagiarized text in their own words. It is possible that an author may decide to withdraw the article, rewrite and submit again.

### 11.2 *Substantial overlap in text:*

If substantial sections of a submission are showing high levels of similarity, there are two options:

- Reject the paper (see guidelines and flowcharts below for further action);
- Send the paper to a selected panel of reviewers for additional feedback. Based on their feedback the decision could be to:
  - Reject (see guidelines and flowcharts below for further action)
  - Ask authors to rewrite the duplicated text.

If the paper is rejected, the findings should be presented to the corresponding author and s/he should be asked to respond on behalf of all authors. Please follow the flowcharts designed by COPE on what to do:

[What to do in case of redundant \(duplicate\) submission?](#)

[What to do in case of plagiarism in a submitted paper?](#)

[What to do in case of data fabrication in a submitted paper?](#)

For severe plagiarism cases (for example plagiarism by a same group of authors affecting multiple Springer journals or journals from other publishers), or other unethical practices, you are advised to inform your Springer publishing editor before making a final decision.

There is a chance that you might come across an article already published in your journal that shows similarity with previously published material. If you wish to give this further follow-up, please follow the flowcharts designed by COPE on what to do for published articles.

[What to do in case of redundant \(duplicate\) publication?](#)

[What to do in case of plagiarism in a published paper?](#)

[What to do in case of data fabrication in a published paper?](#)

**Note!** If your investigation leads to the decision to correct the literature, either by an Erratum, Retraction Note, or Expression of Concern, please contact your Springer publishing editor first.

## 12 Queries

If you have questions that are not addressed by this document or if you would like to receive the full document with more details, please send your queries to: [CrossCheck@springer.com](mailto:CrossCheck@springer.com)

### References

- CrossCheck Plagiarism Screening: Understanding the Similarity Score. <http://www.ithenticate.com/plagiarism-checker-blog/bid/63534/crosscheck-plagiarism-screening-understanding-the-similarity-score>
- CrossCheck 2012 Branding Guidelines. <http://www.iThenticate.com>
- What is CrossCheck? <http://www.iThenticate.com>
- <http://www.ithenticate.com/products/dv-beta-notes/>
- iThenticate User Manual. [https://edgecastcdn.net/800404/app.ithenticate.com/static/build/media/fb8b34171985118ad4be22429acedb18cb\\_iThenticate\\_Manual.pdf](https://edgecastcdn.net/800404/app.ithenticate.com/static/build/media/fb8b34171985118ad4be22429acedb18cb_iThenticate_Manual.pdf)
- IEEE. Navigating the CrossCheck/iThenticate Site. [http://www.ieee.org/documents/CrossCheck\\_User\\_Guide.pdf](http://www.ieee.org/documents/CrossCheck_User_Guide.pdf)
- Committee on Publication Ethics. <http://publicationethics.org>. <http://publicationethics.org/resources/flowcharts>
- Wager, E. (2011) How should editors respond to plagiarism? COPE discussion paper [http://publicationethics.org/files/COPE\\_plagiarism\\_discussion\\_%20doc\\_26%20Apr%2011.pdf](http://publicationethics.org/files/COPE_plagiarism_discussion_%20doc_26%20Apr%2011.pdf)