

# Course script

## Literature management with Zotero



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# 1 Why reference management programs - why Zotero?

Reference management programs support you in your academic work and writing. They generally have three main functions:

1. Collecting literature references and full texts
2. Managing literature to maintain an overview over a more extended time
3. Output of reference lists and automatic citation

You can find a comparison of the most popular reference management programs in our [software comparison](#).

Zotero is a free program that you can install locally on your computer. However, Zotero can also be used in the browser version. The online storage for attachments is limited to 300 MB. More storage can be purchased additionally (e.g., for larger projects alone or in a group).

The University Library of the Technical University of Munich does not currently offer institutional storage space. However, you can set up synchronization via WebDAV in the Zotero settings and synchronize your Zotero libraries via your personal TUM drive. To do this, go to the settings in the *Edit* menu, select *Sync attachment files in My Library using WebDAV*, and enter the following path in the URL field: `webdisk.ads.mwn.de/hcwebdav/Home`

The user name is `ADS\` followed by your TUM ID. Then, enter the corresponding password and click on *Verify server*.

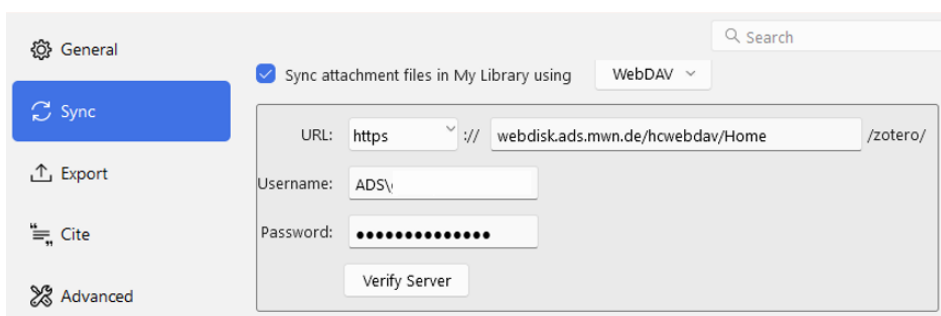


Figure 1 Integrating WebDAV as a sync option

Zotero offers the following advantages:

- Zotero is a free, open-source program; you can continue to use it even after your time at TUM.
- The program is widely used internationally and has a large community that offers support and develops plug-ins for individual solutions.
- Zotero can be used on Windows, Linux, and Mac computers.

However, Zotero also has some disadvantages:

- The online storage space for attachments is limited to 300 MB.
- The customization of citation styles is not intuitive.

## 2 Download & Installation

Zotero can be installed on Windows, Linux, and Mac operating systems.

### **System requirements**

- Windows 7 or later
- Mac OS 10.12 or later
- Word 2016 until 2021 or Office 365, LibreOffice 5.2 or later

System requirements for Zotero Connector: Edge 88 or later; Chrome 88 or later; Firefox 102 or later; Safari on Mac OS Big Sur or later

### 2.1 Installation for Windows and MAC OS

Proceed as follows during installation:

1. Please close all running programs.
2. Click on the download link on the **zotero.org** page and carry out the installation.

### 2.2 Zotero Connector

The Zotero Connector is a browser plug-in that allows you to quickly transfer literature to your Zotero library. Immediately after downloading Zotero, you will be prompted to install the Zotero Connector. This is available for Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari. If necessary, remember to activate the Zotero Connector under Extensions. The Zotero Connector for Safari is automatically installed with Zotero.

### 2.3 Updates

You can find updates in the Zotero application under *Help > Check for updates*.

### 3 Zotero - Program interface

To start Zotero, go to *Programs* > *Zotero* in the Start menu and open Zotero.

Zotero is structured as follows:

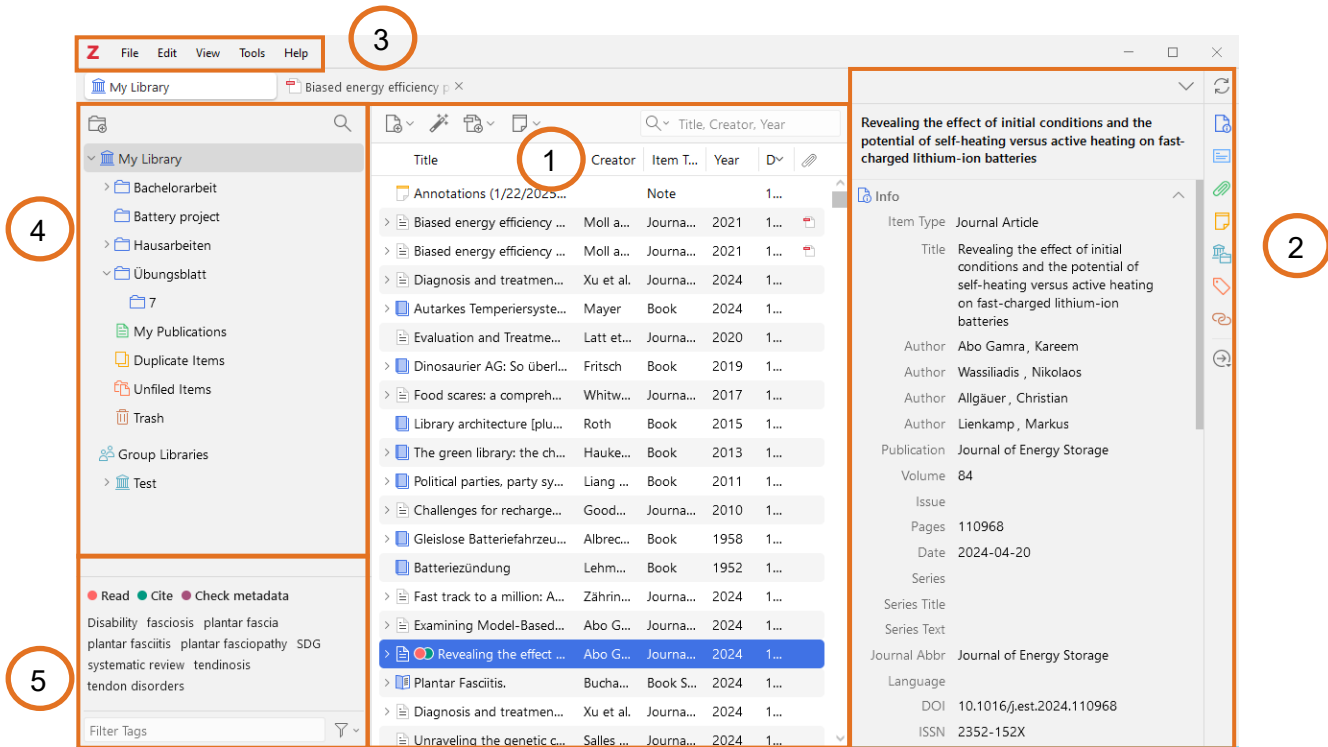


Figure 2 Zotero Desktop interface

#### 1 Database area

In the database area, all titles from your library, from the currently selected group or the currently selected day, or the results of a search are displayed.

#### 2 Title information

In this area, you can **switch** sideways between the icons *Info*, *Summary*, *Attachments*, *Notes*, *Libraries and Collections*, *Tags*, *Related*, and *Find*.

- The bibliographic information for the currently selected title is displayed in the *Info* section and can be edited in this window.
- For example, the abstract is displayed in the *Abstract* section.
- In the *Attachments* section, you will find all the attachments that belong to the selected title.
- In the *Notes* section, you can add and edit notes for the selected track.
- In the *Libraries and Collections* area, you will see the collections in which this title is contained. The assignment can also be changed here.

- You can add and edit tags in the *Tags* section. You can find an overview of all tags under point 5.
- In the *Related* section, you can add related titles in your library to the currently selected title, e.g., if title A is cited in title B.
- In the *Locate* section, you can call up the title online or as a PDF and search various search engines (including the holdings of the TUM University Library). You can also manage the search engines here.

### ③ Zotero functions

You will find various functions in this bar. You can add literature using the plus symbol on the left and the magic wand. Attachments can be added using the symbol to the right of the magic wand. You can add notes using the post-it. You can start a search within your literature in the search field on the right.

### ④ Organization

In the left-hand column, you will find your library, which contains all the titles included in Zotero. To organize the titles, you can create various *collections* and *sub-collections*. You will also find *duplicate entries*, *the recycle bin*, and *unfiled items*.

### ⑤ Tags

Here, you can see which *tags* you have assigned and adjust them. You can also filter your literature directly according to the tags and see any overlaps in your tags.

## 4 Add and edit titles in Zotero

There are various options for importing literature data into Zotero. Four options are explained below using examples.

### 4.1 Adding titles manually

1. Select the *New entry* command from the *File* menu. A new, empty data record is opened. Alternatively, click on the plus symbol.

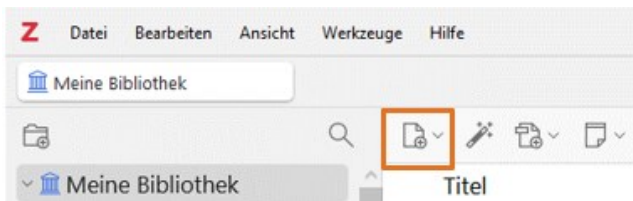


Figure 3 Entering sources manually in Zotero

2. Select the document type from the drop-down list, e.g., journal article, book section, etc. The input fields change depending on which document type you select. The selection of the document type is essential for correct citation.
3. Enter all the relevant data you need for citing in the respective fields

**Names of persons and institutions:** Enter personal names according to the pattern *last name*, *first name*, i.e., the last name is entered in the left-hand field and the first name is entered in the right-hand field. For institution names, you can switch from two name fields to one name field on the right. If you are entering several authors, click on the plus symbol to create a new line. You can also delete entries using the minus symbol. If you click on Author, you can add other fields, such as Publisher or Translator, from a drop-down menu.



Figure 4 Author field

**(Page) numbers:** Always give only the pure numbers - no p. for page or p. for page. This information is added depending on the citation style. Changes are saved automatically.

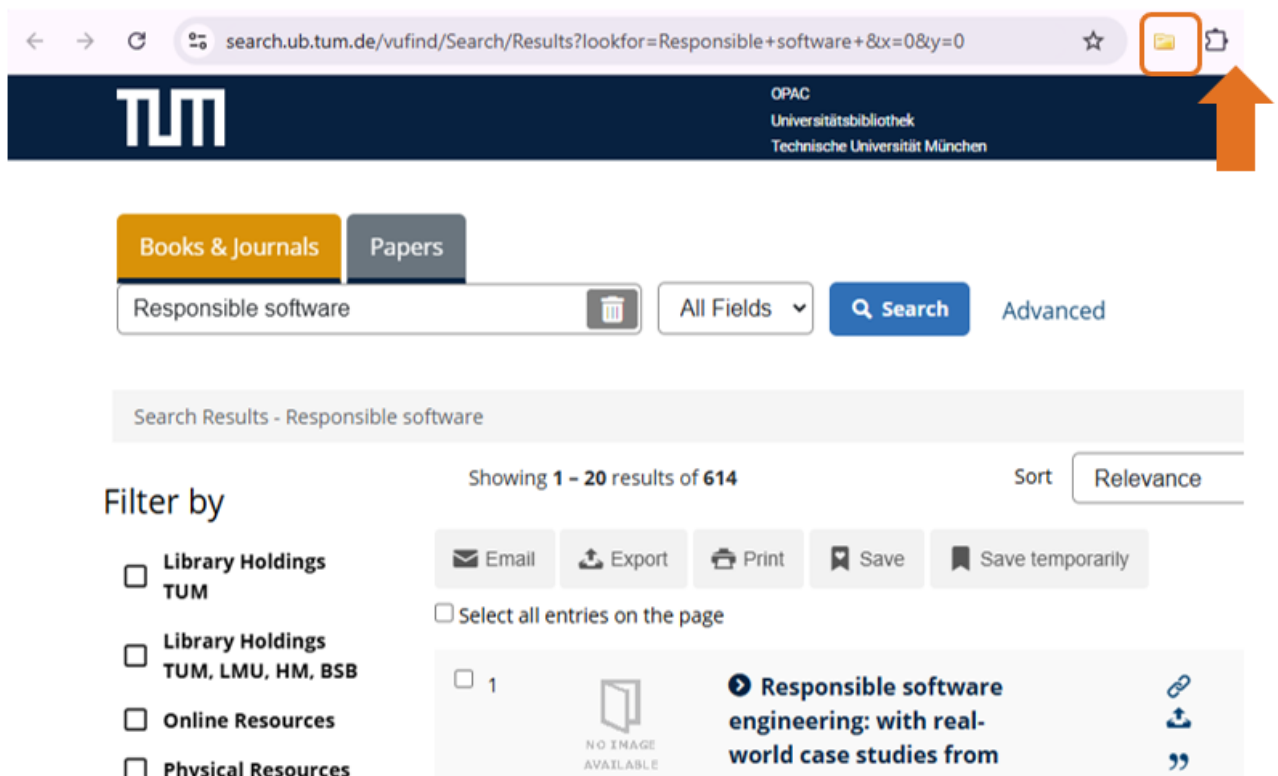


## 4.2 Zotero Connector

Zotero offers the browser add-in Zotero Connector, which simplifies the inclusion of sources from the Internet (websites, articles in databases, catalogs, etc.). You can do so later if you have not installed the add-in at the beginning.

### Adding titles with the Zotero Connector from the online catalog

1. Carry out your search in the online catalog as usual.
2. If you have installed the Zotero Connector, you will see a folder icon in the top right-hand corner. If you click on the icon, you will see all hits and can adjust the selection if necessary and then click OK.
3. You will find your transferred hits in Zotero in the folder that you selected when saving.



The screenshot shows a web browser window displaying the search results for 'Responsible software' on the University Library OPAC. The browser address bar shows the URL: `search.ub.tum.de/vufind/Search/Results?lookfor=Responsible+software+&x=0&y=0`. A folder icon in the top right corner of the browser window is highlighted with an orange box and an arrow. The search results page shows the following information:


- Search Results - Responsible software
- Showing 1 - 20 results of 614
- Sort: Relevance
- Filter by:
  - Library Holdings TUM
  - Library Holdings TUM, LMU, HM, BSB
  - Online Resources
  - Physical Resources
- Actions: Email, Export, Print, Save, Save temporarily
- Select all entries on the page
- Result 1:  Responsible software engineering: with real-world case studies from

Figure 5 Zotero Connector in the University Library OPAC

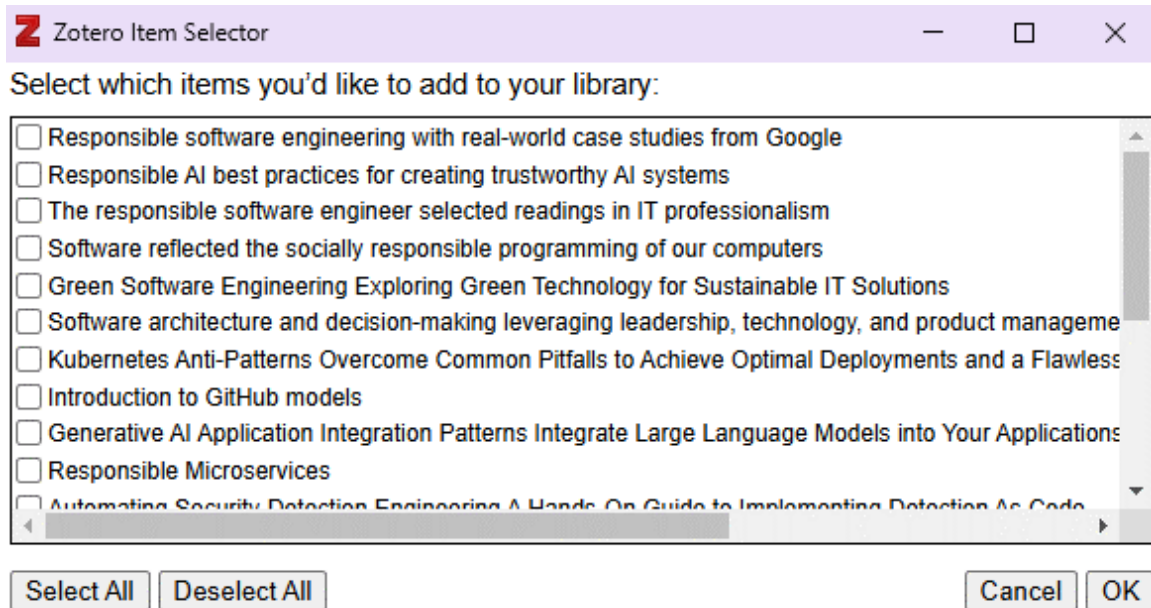


Figure 6 Zotero Connector: Item Selector

### 4.3 Importing titles from a database

Literature databases usually offer you the option of exporting the bibliographic data of articles or other literature sources. The export is shown below using the example of the Scopus database in Google Chrome. However, the steps shown here are similar for most databases.

In the database:

1. Select the references you wish to export. In some databases, export is only possible from the watch list (also called MyList, MyFolder, etc.). Sometimes, you can click directly on Export, Save, or similar.

2. Select the export path and export format. You are often offered a direct export to Zotero for this. Otherwise, the RIS format, for example, is well suited for importing into Zotero

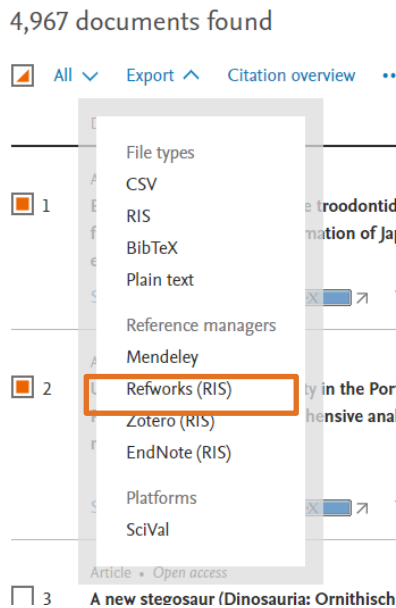


Figure 7 Export function in Scopus

3. Start the export.

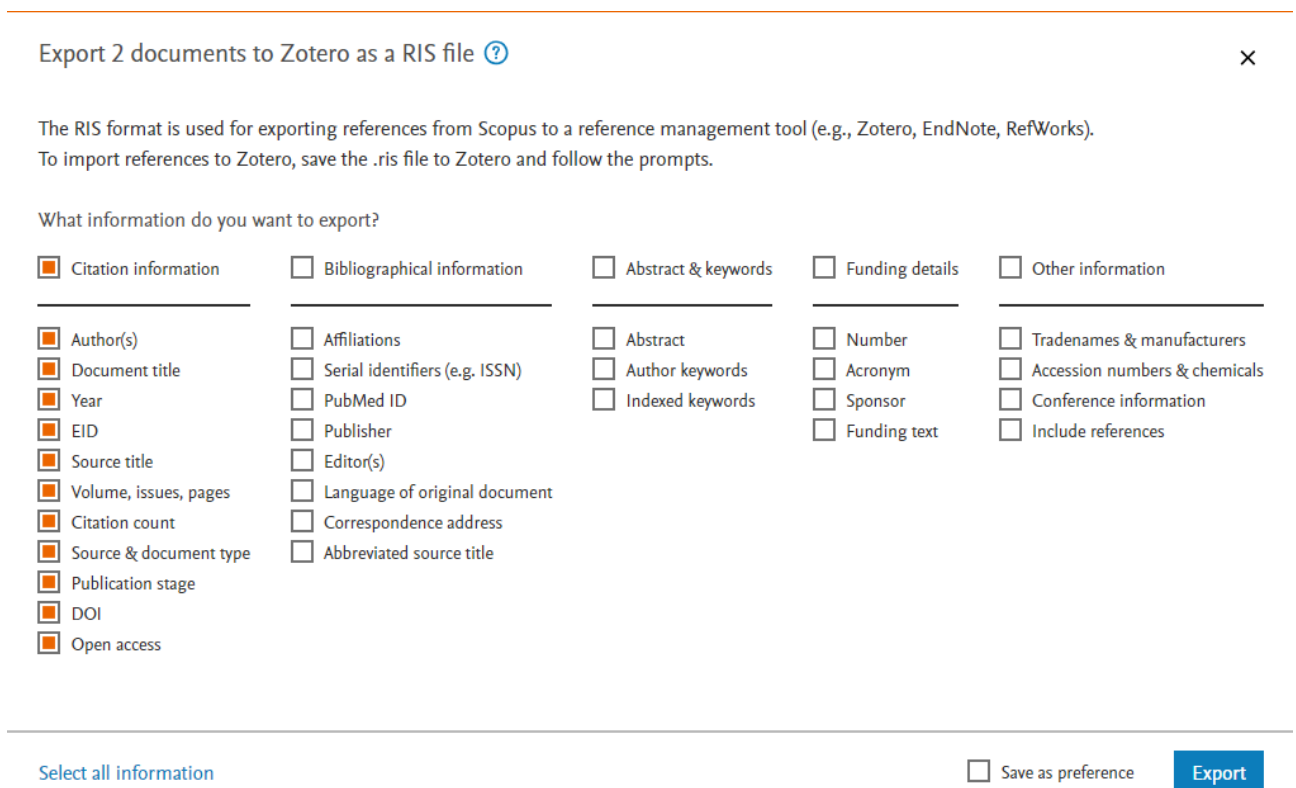


Figure 8 Export options in Zotero

4. In Zotero, click on *File > Import* and click through until you can import the export file. Check the data of the imported titles and correct them if necessary.

## 4.4 Full-text search

When you add titles with the Zotero Connector, the full texts are often included directly. However, if a title in your library does not yet contain the PDF, you can right-click on the title and select *Find Full Text*.

You can also select the TUM OpenURL in the settings. To do this, go to the *General* tab in the *settings* and select the *Technical University of Munich* from the drop-down menu in the *Find* section. If you now select a title in Zotero and click on the gray arrow icon on the right-hand side of Zotero, you can select *Library Lookup* and you will be shown whether and where the title is available at the university library.

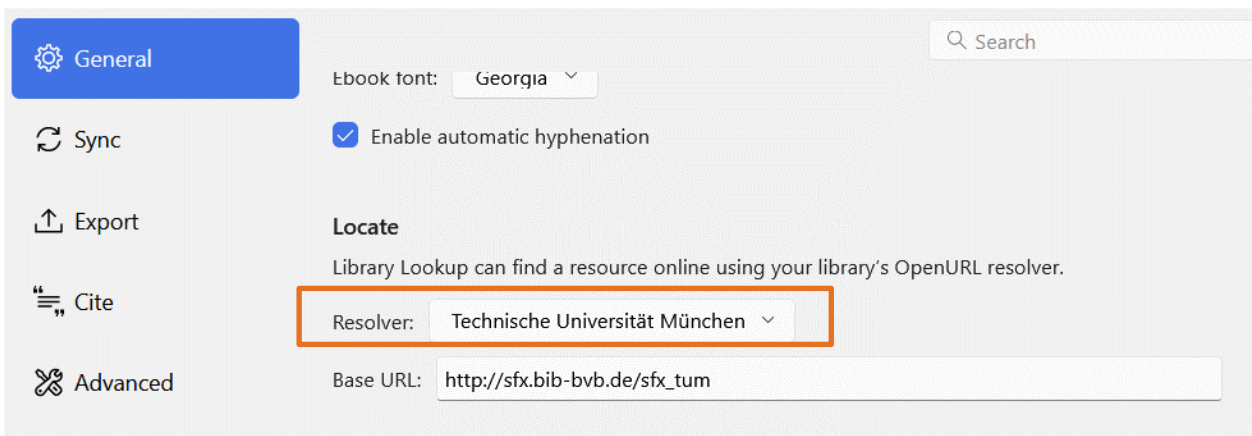


Figure 9 TUM resolver in Zotero settings

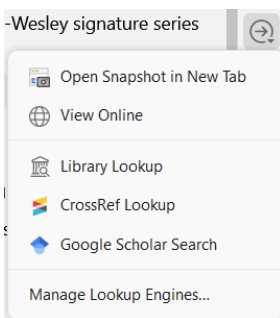


Figure 10 Locate icon

## 4.5 Duplicate items

Before you start citing in your work, it is always advisable to check for any duplicates, i.e. duplicate entries. In Zotero you will find duplicate items as its own group. If you click on it, all duplicate entries will be displayed. You can merge these. To do this, you must decide on a master entry. If different information is entered in a field, only the information from the master entry will be transferred. You can tell whether different information is contained by the tree path symbol.

The screenshot shows a library management interface. On the left, a sidebar lists folders including 'My Library', 'My Publications', and 'Duplicate Items' (highlighted with an orange box). The main area displays a table of items with columns for Title, Creator, Item Type, Year, and Page Count. Two items with the title 'Biased energy efficiency perception ...' are highlighted with an orange box. On the right, a 'Merge 2 items' dialog box is open, showing two dates: '1/13/2025, 4:53:22 PM' and '1/14/2025, 12:28:34 PM'. Below the dates, it lists item details for a 'Journal Article'.

Title	Cr...	Item Type	Y...	P/
Biased energy efficiency perception ...	M...	Journal Article	2...	1/14
Biased energy efficiency perception ...	M...	Journal Article	2...	1/13
Diagnosis and treatment of the Eher...	Xu...	Journal Article	2...	1/1:
Autarkes Temperiersystem zur Schne...	M...	Book	2...	1/1:
Evaluation and Treatment of Chronic...	Lat...	Journal Article	2...	1/1:
Dinosaurier AG: So überleben Sie un...	Fri...	Book	2...	1/1:
Food scares: a comprehensive categ...	W...	Journal Article	2...	1/1:
Library architecture [plus] design	Roth	Book	2...	1/1:
The green library: the challenge of e...	Ha...	Book	2...	1/1:
Political parties, party systems and d...	Lia...	Book	2...	1/1:
Challenges for rechargeable Li batte...	Go...	Journal Article	2...	1/1:
Gleislose Batteriefahrzeuge und ihre ...	Al...	Book	1...	1/1:
Batteriezündung	Le...	Book	1...	1/1:
Fast track to a million: A simulative c...	Zä...	Journal Article	2...	1/1:
Examining Model-Based Fast-Chargi...	Ab...	Journal Article	2...	1/1:
Revealing the effect of initial con...	Ab...	Journal Article	2...	1/1:

**Merge 2 items**

Choose the version of the item to use as the master item:

- 1/13/2025, 4:53:22 PM
- 1/14/2025, 12:28:34 PM

Select fields to keep from other versions of the item:

Item Type: Journal Article

Title: Biased energy efficiency perception based on instantaneous consumption displays – Indication for heuristic energy information processing

Author: Moll, Vivien Esther

Author: Franke, Thomas

Publication: Applied Ergonomics

Volume: 94

Pages: 103399

Date: 07/2021

Journal Abbr: Applied Ergonomics

Language: en

DOI: 10.1016/j.apergo.2021.103399

ISSN: 00036870

Figure 11 Duplicate items folder

## 5 Search titles in Zotero

In Zotero, you can search specifically for titles, notes and content from the attachments. You can use the simple search via the search field on the right or the *advanced search* by clicking on the drop-down menu.

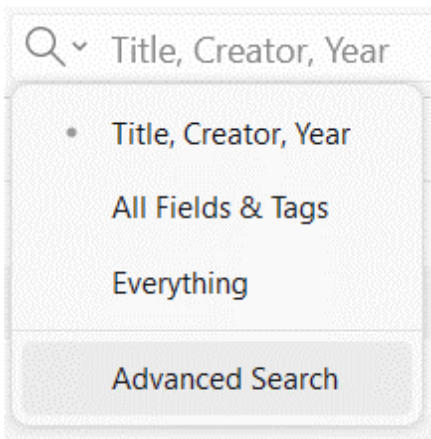


Figure 12 Simple Search in Zotero

In the simple search, you can choose whether to search *All*, *All fields and tags* or *Title, Author, Year*.

In the advanced search, you can customize your search using the respective drop-down menus. You can also save your search there.

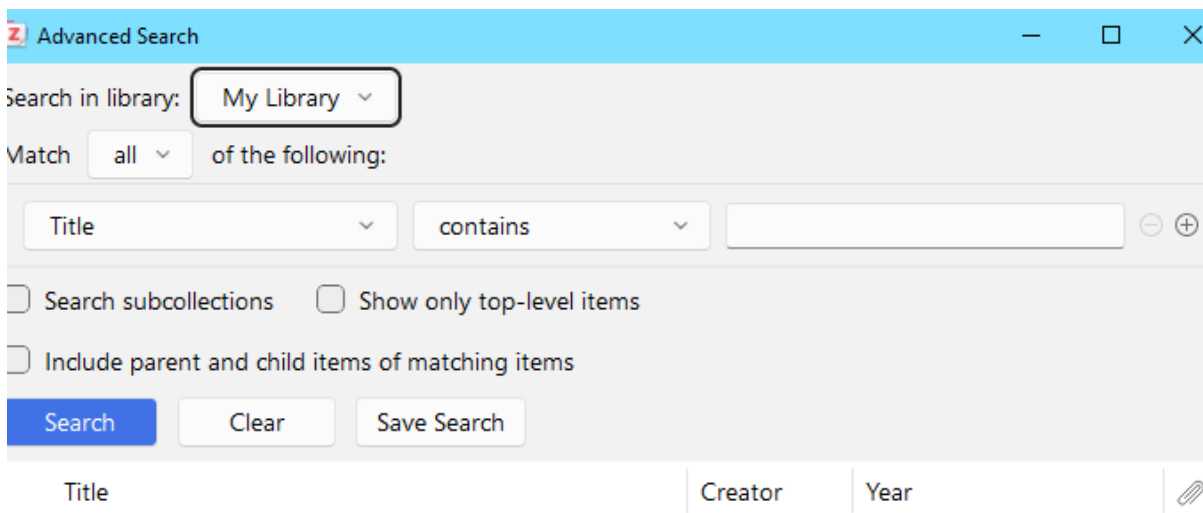


Figure 13 Advanced search in Zotero

## 6 Sort titles in Zotero

You can find all your titles in your library. If you want to sort these titles, you can create *collections* and *sub-collections*. It would be useful, for example, to create separate collections for different projects or papers, to organize collections thematically or to display the structure of the work in collections and sub-collections. You can create a new collection either by right-clicking on *My library* or via the folder icon.

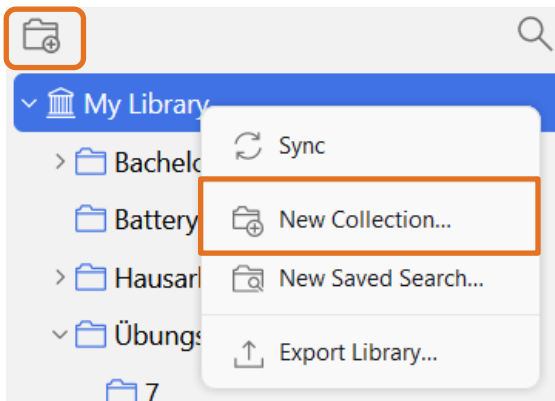


Figure 14 Adding new collections

You can create a new subcollection by right-clicking on the collection and selecting *New subcollection....*

### 6.1 Tags

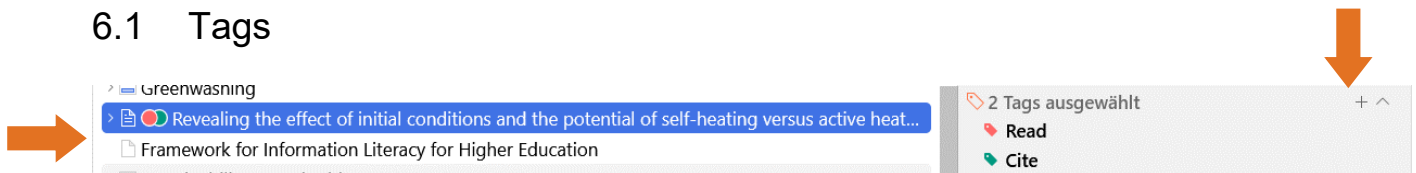


Figure 15 Colored tags and tag icon

You can use tags to sort your references according to individual criteria, e.g., by topic, structure in your work, tasks, or references that you would like to cite. You can also assign colors to tags. For example, you could use colored tags to manage tasks and non-colored tags for thematic classification. You can also see colored tags in the overview in the middle column. Otherwise, the tags can also be viewed and added to the right-hand column by clicking on the tag symbol.

You can also assign the sources to an existing tag using drag-and-drop. Click on a tag to filter your literature according to this tag.

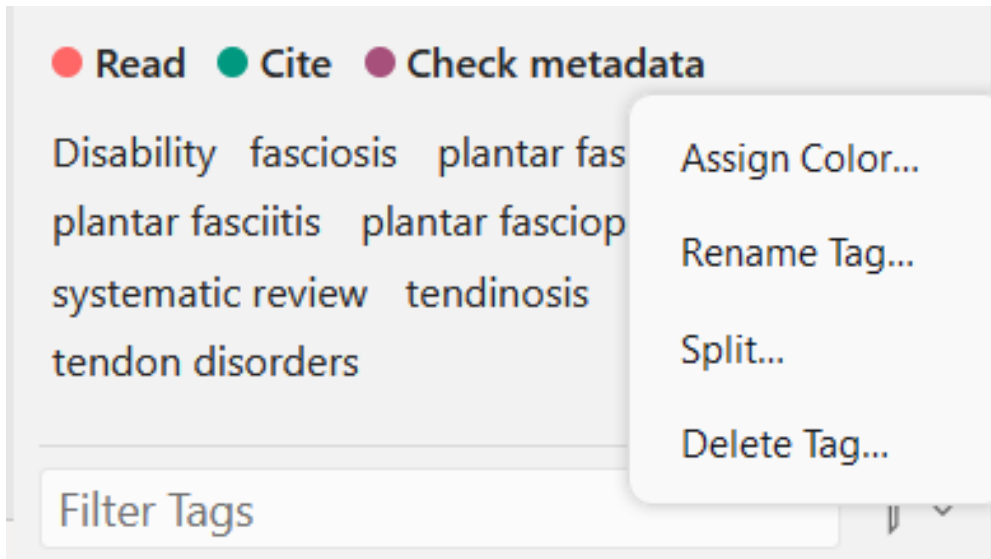


Figure 16 Tags overview



## 7 Citing with the Word add-in

With Zotero, you can create bibliographies and citations in your text. You also have the option of inserting notes that you have created in Zotero, e.g., as a quote.

Proceed as follows when inserting citations:

1. Start Microsoft Word and open your document.
2. Open the Zotero tab in Word, go to the place in the text where you want the citation to appear, and select the *Add/Edit Citation* button. When you cite for the first time in the document, a window will appear in which you should select the citation style.
3. Enter one or more search terms in the search window and select the reference you want to cite. To see all references in your Zotero library, select *Classic view* from the drop-down menu. When you have selected all the references you want to cite at this point, press Enter.
4. To insert the bibliography, go to the place where you want it to appear and click on *Add/Edit Bibliography*. The bibliography is updated automatically with each new reference.



Figure 17 Zotero toolbar in Microsoft Word

### Add additional information

To insert additional information, such as page numbers or prefixes, you can click on the reference in the search bar directly when inserting the reference and enter the information. If you want to add page numbers later, place the cursor next to the relevant reference, click on Add/Edit Citation, and add the information. Here, you can also choose to omit the author in an author-year style. This makes sense if you have already named the author previously in the sentence.

## 7.1 Change citation styles

You can change the citation style at any time. To do this, click on *Document Preferences* in the Zotero Word tab and select the appropriate citation style.

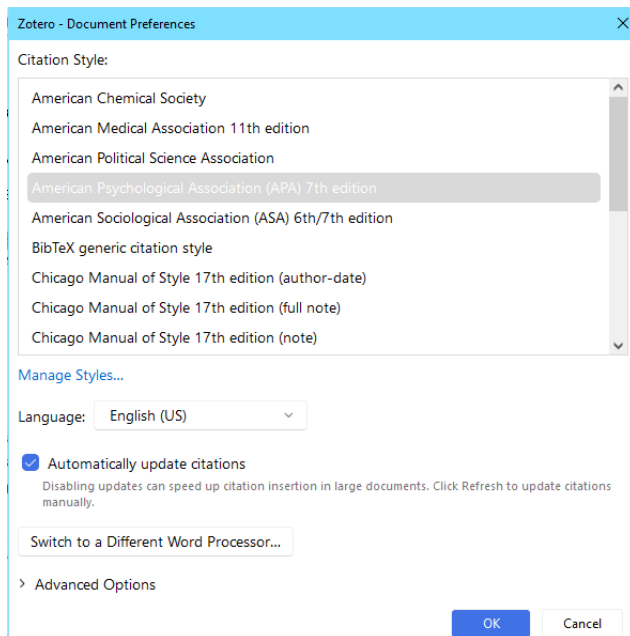


Figure 18 Document preferences in the Zotero toolbar

## 7.2 Create literature lists

There are various ways of displaying the literature you have saved in Zotero independently of a text document.

- **Bibliography:** You can create the bibliography for a collection by right-clicking on the collection and then selecting *Create bibliography from collection*. You must then select the citation style and the type of output (save as RTF, HTML, print or copy to clipboard). If you only want to create the bibliography for individual titles in your library, select the items and right-click and select *Create bibliography*. Make sure that you select *Bibliography* and not *Citation* in the *output mode*.
- **Report:** You can also create a report for a collection or individual items. Again, select the collection or the corresponding titles and click on *Create report*. A new window will automatically appear, showing all the titles with the title details, tags, attachment titles, and your notes.

## 8 Backups

To back up your data, you should make regular backups. In addition to the automatic backups of the latest version of your library, Zotero also recommends making manual backups of your data. You can easily do this by copying the Zotero files on your computer and saving them in a different location (e.g., on an external drive). To find out where Zotero is stored, go to *Edit > Settings > Advanced*. You will find the storage location below the *Data Directory Location*. Please make sure that you copy all Zotero files (including *zotero.sqlite* and *storage* and other subfolders)

However, you can also use Zotero Online to synchronize your library there. You will need to create an account for this.

## 9 Plug-ins and citation styles

You can further customize Zotero according to your needs. You can find more information here:

### Plugins

You can install various additional plugins in Zotero to customize Zotero to fit your needs. Some of these are official plugins from Zotero or plugins developed by other users.

### Citation styles

You can find more citation styles in the Zotero Style Repository.

## 10 Support

If you have any questions about Zotero, you can get help and support in various ways:

### Zotero documentation

In the Zotero documentation, you will find many helpful tips on how to use Zotero.

### Zotero Forum

In the Zotero forum, you can ask questions directly, which will be answered either by other users or by developers.

### Moodle course

You can find our Moodle course on Moodle

### Help at the Technical University of Munich

If you have any questions, please contact the University Library: workshop@ub.tum.de

## **Reference management and citation consultation hours at the University Library**

You are welcome to make an appointment for a consultation in Munich or online.

### **TUM Citation Guide**

If you have questions about citations, the TUM citation guide will help you.

## 11 Glossary

Zotero Connector	The Zotero Connector is an add-in that allows you to add sources directly from the browser. It also allows you to easily add websites to your library.
Zotero Online	In addition to the desktop version of Zotero, there is also a web version. You will need a Zotero account for this. You can also use it to set up synchronization of your library and collaborate with other people in groups.
Zotero library	The Zotero library contains all the titles you have added in Zotero.
Zotero collection	Within the Zotero library, you can organize your titles into collections and sub-collections. You can sort these according to topics, different works, or the structure of your work, for example.
Document type	The document type is the external form of an information source, e.g., collective work, journal article, or book. Zotero offers input masks in the Info field for the different document types in order to record all relevant information and cite sources correctly in the bibliography.

### Contact us

#### Technical University of Munich

University Library

Arcisstrasse 21, 80333 Munich

Phone +49 89 189 659 220

[workshop@ub.tum.de](mailto:workshop@ub.tum.de)

[www.ub.tum.de](http://www.ub.tum.de)

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