



CREATING ITEMS IN ZENODO

The FATMOLS project consortium uses the ZENODO repository to store and provide Open Access to the research data sets resulting from the scientific activities reflected in the publications.

In particular, the assets to be uploaded to ZENODO are:

- (a) the research data generated during the project, including associated metadata, that are needed to validate the project's scientific publications.
- (b) information about tools, instruments and software necessary to validate the scientific results.

The publications and the associated datasets, will be uploaded to ZENODO as individual items as can be seen in the example of figure 1. Each resource (pdf file) and the associated data (in a rar/zip/tar file container) like sets must be easily findable and identifiable.

May 22, 2020 (v1) Journal article Open Access View

Enhanced Molecular Spin-Photon Coupling at Superconducting Nanoconstrictions

Gimeno, Ignacio; Kersten, Wenzel; Pallarés, María C.; Hermosilla, Pablo; Martínez-Pérez, María José; Jenkins, Mark D.; Angerer, Andreas; Sánchez-Azqueta, Carlos; Zueco, David; Majer, Johannes; Lostao, Anabel; Luis, Fernando;

We combine top-down and bottom-up nanolithography to optimize the coupling of small molecular spin ensembles to 1.4 GHz on-chip superconducting resonators. Nanoscopic constrictions, fabricated with a focused ion beam at the central transmission line, locally concentrate the microwave magnetic field.

Uploaded on June 29, 2020

May 22, 2020 (1) Dataset Open Access View

Enhanced Molecular Spin-Photon Coupling at Superconducting Nanoconstrictions. Open data sets

Luis, Fernando;

Includes data relevant for publication with DOI 10.1021/acsnano.0c03167 plus a table with information on how the data were obtained and processed.

Uploaded on June 29, 2020

Figure 1. First, the final version of a FATMOLS publication uploaded to ZENODO. Second, the data set associated to that publication.



Every item created in the FATMOLS ZENODO community must provide, at least, the following properties:

- Linkable DOI identifying the resource.
- Title with optional sub-type properties (e.g. Open data sets).
- At least one author or creator of the resource with recommended affiliation and ORCID identifier sub-type properties.
- Publisher.
- Publication year or date.
- Resource type. The item created in the ZENODO repository must be tagged with a resource type identifier (dark flag in figure 1).
- Related identifier. The data sets resources must be uploaded accompanied by the DOI corresponding to the related publication. In the same way, publication resources must should have the DOI that identifies the related data set.

This naming rules state that every file uploaded to the FATMOLS ZENODO community must specify the name of the project, the institution the corresponding partner belongs to, an identification for the first author of the associated publication (generally the last name), the journal with the year of publication and a the type of file or document.

The following conventions will be observed:

- "-" will be used in file names to delimitate the different flags in the name;
- no punctuation;
- no special characters (e.g. \$, @, %, #, &, *, (,), !);

Publication date:
May 22, 2020

DOI:
DOI [10.1021/acsnano.0c03167](https://doi.org/10.1021/acsnano.0c03167)

Keyword(s):
molecular spins, superconducting resonators, electron spin resonance, dip pen nanolithography, focused ion beam nanolithography, spin qubits, circuit quantum electrodynamics

Related identifiers:
Supplementary material
[10.5281/zenodo.3921938](https://doi.org/10.5281/zenodo.3921938) (Dataset)

Communities:
[FAult Tolerant MOlecular Spin processor. FET-OPEN project](#)

License (for files):
[Other \(Open\)](#)

Figure 2. Left: Example of different flags and information that will be available via the ZENODO community for each item, including a selection of keywords in order to optimize the findability of the resources.

ZENODO assigns Digital Object Identifiers (DOI) to datasets for their clear identification and citability. Search keywords must be provided attached to each item in the ZENODO community in order to optimize the findability and re-usability of the data, as can be seen in figure 2.

UPLOADING THE FILES

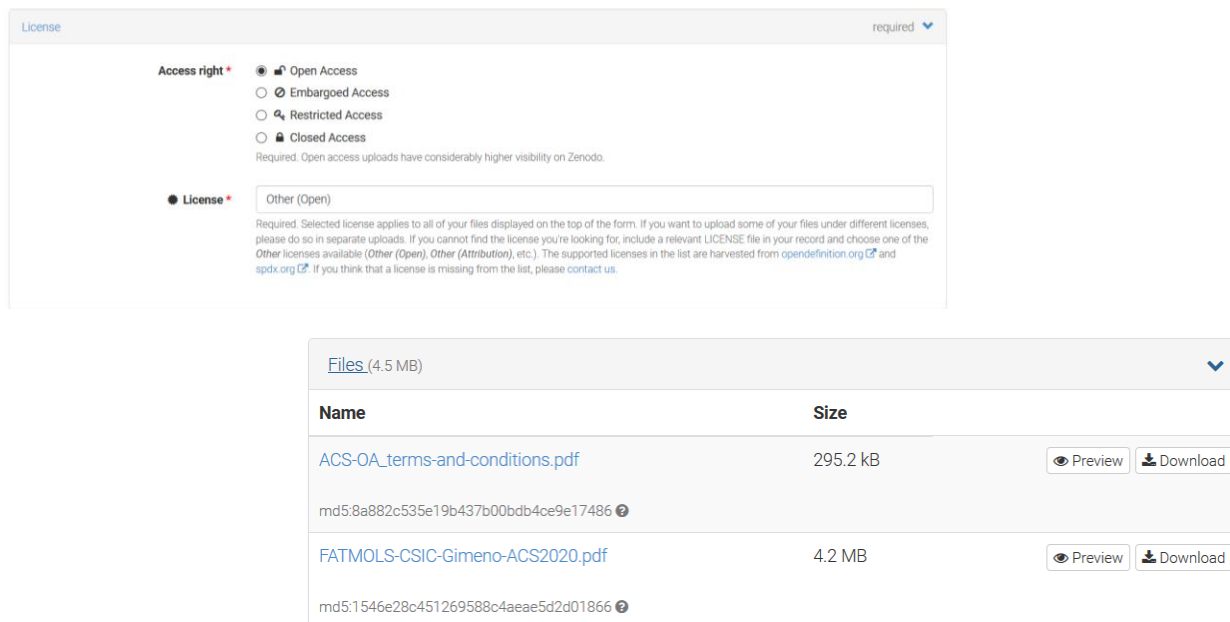
In order to guarantee not only open but clear and straight access to the data generated by every partner in the FATMOLS consortium a set of naming rules will be followed. Each publication, for example the first item in figure 1, will be uploaded in pdf format and named following this model:

[FATMOLS-XXXX-1stLastName-JOURNAL.pdf](#)

Where XXXX is the acronym of the institution the partner belongs to, 1stLastName is the first author's last name, and JOURNAL is a journal identifier with the year of publication. For example, the article appearing in figure 1 was uploaded as:

[FATMOLS-CSIC-Gimeno-ACS2020.pdf](#)

The publication item will be named as the paper title, it will have all of the authors and the item description will be the paper abstract. During the upload process the **Journal Article type must be checked**. The **DOI** associated to this first item will be the one **assigned by the journal** and it must be indicated in the corresponding box during the upload process. It is also mandatory to indicate the Open Access license type of the publication, as it can be seen in figure 3UP If the Open Access license were defined by the journal, the license type *Other (Open)* must be chosen (figure 3UP) and the license file must be also uploaded to this first item, as shown in figure 3DOWN.



The screenshot shows the Zenodo upload interface. The top section is titled "License" and is marked as "required". It contains two main sections: "Access right" and "License".

Access right: Four radio buttons are visible: "Open Access" (selected), "Embargoed Access", "Restricted Access", and "Closed Access". Below these is a note: "Required. Open access uploads have considerably higher visibility on Zenodo."

License: A text input field contains "Other (Open)". Below this is a note: "Required. Selected license applies to all of your files displayed on the top of the form. If you want to upload some of your files under different licenses, please do so in separate uploads. If you cannot find the license you're looking for, include a relevant LICENSE file in your record and choose one of the Other licenses available (Other (Open), Other (Attribution), etc.). The supported licenses in the list are harvested from opendefinition.org and spdx.org. If you think that a license is missing from the list, please contact us."

The bottom section is titled "Files (4.5 MB)" and contains a table of uploaded files:

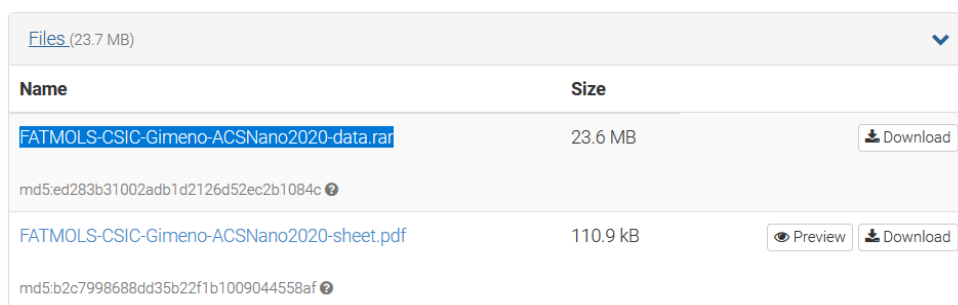
Name	Size	Preview	Download
ACS-OA_terms-and-conditions.pdf	295.2 kB		
md5:8a882c535e19b437b00bdb4ce9e17486			
FATMOLS-CSIC-Gimeno-ACS2020.pdf	4.2 MB		
md5:1546e28c451269588c4aeae5d2d01866			

Figure 3. UP Example of the license type *Other (Open)* during the upload process. **DOWN** Example of the license file uploaded next to the publication pdf file in the first item.

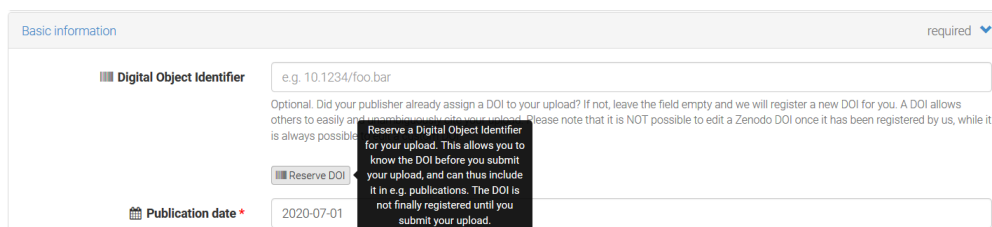
The **data set**, the second item in figure 1, will be uploaded in **.rar, .zip, or .tar** file formats. The data sets will be named following the same model already explained above, with a *-data* extension at the end (as can be seen in figure 4A):

[FATMOLS-XXXX-1stLastName-JOURNAL-data.rar](#)

The data set item will be titled as the first one but adding *Open data sets* at the end (figure 1). The author of this item will be the person who uploads the data sets, and it must be one of the co-authors of the publication. **In the description, the DOI of the publication will appear** (see figure 1), thus establishing a link between both entries. As shown in figure 4UP, **this second item will also include a data sheet, in pdf format, that lists the data files** uploaded within the rar/zip/tar file, establishes the software needed to open and process the uploaded data, identifies the publication DOI and its authors, and gives a contact person. During the upload process, **the Data Set upload type must be checked**. The DOI associated to this data item is **created by ZENODO**. As shown in figure 3DOWN, during the upload process, a **DOI must be reserved** and entered into the corresponding box during the upload process, as shown in figure 4DOWN. During the upload, it is also necessary to indicate the Open Access license type of the publication. Again, if the Open Access license were defined by the journal, the license type *Other (Open)* must be chosen (figure 3UP). The license file will be uploaded as part of the first item.



Name	Size	
FATMOLS-CSIC-Gimeno-ACSNano2020-data.rar	23.6 MB	Download
md5:ed283b31002adb1d2126d52ec2b1084c		
FATMOLS-CSIC-Gimeno-ACSNano2020-sheet.pdf	110.9 kB	Preview Download
md5:b2c7998688dd35b22f1b1009044558af		



Basic information required

Digital Object Identifier

Optional. Did your publisher already assign a DOI to your upload? If not, leave the field empty and we will register a new DOI for you. A DOI allows others to easily and unambiguously identify your work. Please note that it is NOT possible to edit a Zenodo DOI once it has been registered by us, while it is always possible to reserve a DOI before you submit your upload, and can thus include it in e.g. publications. The DOI is not finally registered until you submit your upload.

Reserve DOI

Publication date

Figure 4. UP Example of the data set .rar file and the data sheet pdf file uploaded as part of the second item. **DOWN** During the data set upload, a DOI must be reserved.

Both ZENODO items will be accompanied by the DOI assigned to the other one. During the upload, the DOI related to the other item can be specified in the *Related/alternate identifiers* section.

The **main format of the data files** within the uploaded rar/zip/tar file will be **.dat**. Each .dat file must be named following the same model already explained above with a *-fig* extension specifying the



corresponding figure in the publication and also with a *-type* extension briefly describing which plot represents the data:

[FATMOLS-XXXX-1stLastName-JOURNAL-Fig-type.dat](#)

Associated to each data set, a **data sheet** (downloadable from the FATMOLS web page) **in pdf format will collect all the key information.**