

## How to request data acquisition for Single Particle Analysis (SPA)?

**Preamble.** In the following we describe the procedure how to request the service `SPA data acquisition – Titan Krios (FU-Berlin)`.

**Prerequisites:** You need to be registered as member of at least one group in FUB IRIS. This group as well as yourself must be registered with the SPA workflow. If in doubt, ask your group head or group admin. (There are also special handouts on all these topics.)

First of all, please note that each sample needs its own request. You may, however, integrate different preparations of the same sample into one request.

To request single particle data acquisition, follow the steps below:

- Login to [fub.openiris.io](http://fub.openiris.io) with your institutional credentials (email and password).
- Open the Tab `Services` and look for `SPA data acquisition – Titan Krios (FU Berlin)`. *If you cannot find this service, you or your group might not yet be registered (see prerequisites). If in doubt, please contact Dr. Boris Schade ([boris.schade@fzem.fu-berlin.de](mailto:boris.schade@fzem.fu-berlin.de)) at the FZEM.*
- Once you press either the blue button `SUBMIT REQUEST` or the document icon on the right top, a new window will open displaying a form. Please note the scrollbar on the right, there is more to fill in than you can see at once.

The screenshot shows a web browser window titled "SPA data acquisition (FU Berlin)". The form contains the following fields and sections:

- Title:** A text input field with a red border and a red error message "A request title is required."
- Group:** A dropdown menu with the text "- Please select -".
- Cost center:** A dropdown menu with the text "N/A".
- Notes:** A text area containing the following text: "Completing and submitting this form will initiate the service of data acquisition on the 300kV electron microscope Titan Krios. The request must be approved by the group leader of the requester (who will automatically be informed of the request). Approval of this request also includes the obligation of coverage of the costs for the measurements according to the usage policies in [http://www.bcp.fu-berlin.de/en/chemie/chemie/service/biosupramol/Ressourcen/Dokumente/BSM\\_User\\_guidelines.pdf](http://www.bcp.fu-berlin.de/en/chemie/chemie/service/biosupramol/Ressourcen/Dokumente/BSM_User_guidelines.pdf) The following informations are intended to estimate the efforts for the service and provide important informations for the operators. They will be kept confidential."
- Hazardous information:** A section with the heading "Please provide mandatory informations about the hazard potential of the sample." and a checkbox for "Hazardous material (hazmat)\*" with sub-options:  bio hazardous,  radiolabelled,  toxic,  harmful,  non-hazardous.
- Particle information:** A section with the heading "Please provide important information of the sample." and two text input fields: "Sample ID\*" (max. 10 characters) and "Particle size" (max. 10 characters). Below the "Particle size" field is the text "in kDa or nanometer (diameter)".
- Sample information:** A section with the heading "Please provide informations of the sample and optionally determine a favoured time slot in which the sample should/can be prepared".
- Sample preparation:** A section with two checkboxes:  aqueous solution and  organic solvent additives.

At the bottom of the form are two buttons: "SUBMIT" and "CANCEL".

## Request the SPA service (V1.1) 2021-01.docx

- Fill in this form attentively and note that some of the data indicated by a red asterisk are mandatory to submit the request.
- Fill in a concise short title, e.g., “UNP bacillus familiarus batch 1”. This title will escort you through the whole request, so choose wisely.
- Next, check the pre-set group, especially if you are registered with more than one group. It is important to have the right group picked from the drop-down list, because your request will immediately be sent to the respective group’s head for approval. Also, booking fees are assigned to this group.
- The ‘cost centre’ is not yet enabled so leave it at N/A.
- Provide a short (max 10 characters) name/ID of your sample or the batch, e.g., your initials followed by a serial number.
- Continue with the rest of the form. Be as precise as possible since all provided information will help the operators to estimate the efforts with this sample. You can also provide images of the analysis like SDS-PAGE, chromatograms, and micrographs of preliminary TEM measurements. In case, please provide only one significant micrograph (no galleries).
- At the end press ‘SUBMIT’. An information mail with your request will be sent to the group head to approve or reject the request. Nothing more will happen before this approval!  
*Please note that approval of a request is always necessary, even if the submitter is the group head.*

From now on, you can follow the progression of your request on [fub.openiris.io](https://fub.openiris.io) in the Dashboard.

After the request's approval, the staff will make an appointment with you for the preliminary talk; this will be our first task. There are already some more tasks tabulated in the request, like sample screenings and grid preparations which are discussed in the preliminary talk.

If all preliminaries meet the requirements for a promising data collection, the sample will be queued for the actual measurement at the Titan Krios microscope. Queuing of course means that we cannot provide a fixed period for the measurement in advance.

If attendance at set-up of the data collection is desired, we will provide you with a short-term information (approximately one week before the estimated measurement), make an appointment, and schedule your sample accordingly.

**Never forget to log out from Iris!**