CiGas Box

The ACTRIS CiGas Instrument Database

Quick Start

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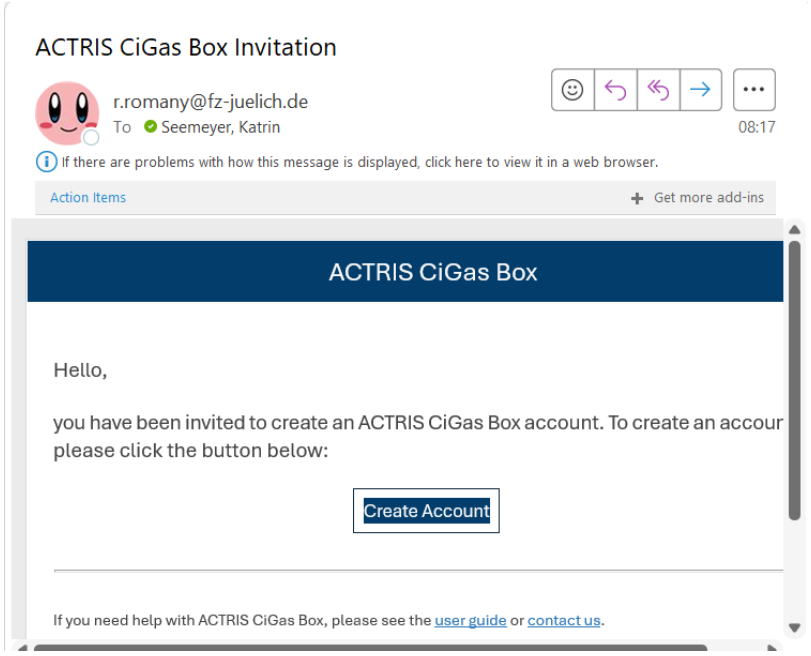
1 Quick Start

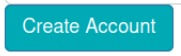
- Login to ACTRIS **CiGas Box** https://cigas-box.fz-juelich.de/login/
- Click on one of the links sent to you in the email from CiGas to the template for the instrument description
    - Start with entering the information on the certificates of scales you use for the different measurements.
    - For the NOx instruments continue with entering the information on the ozone instrument and the meteorology instrument. These will be linked to the NOx instrument.
- Click on **Edit Object** at the end of the page 

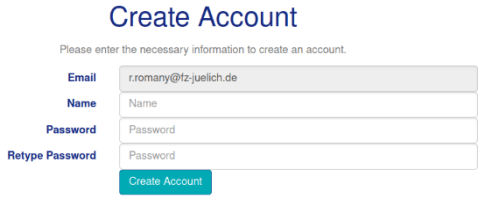
- Add all the information requested
- For more details on the information requested see chapter 2.
- Click on **Save** at the end of the page on the right side 

1.1 Users

- New users will be invited to the database by another user of the data
  The invited user will receive an email which will look like this



- Click on **Create Account**
- The form **Create Account** will open
- Add your **full name** (first_name last_name)
- Create Password
- Click on **Create Account** 

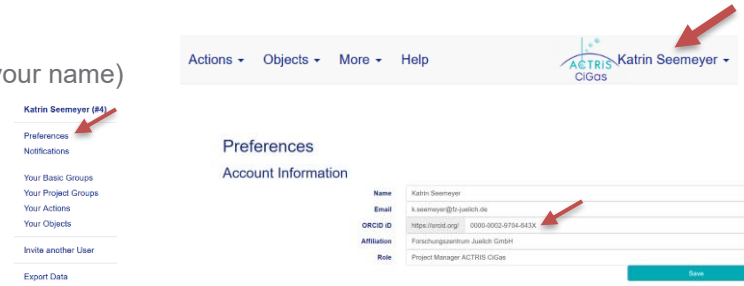


- Add your **ORCID**

1.1.1 ORCID

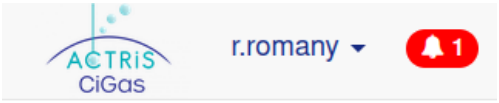
Important – as we want to be as FAIR as possible, all users should be identified by their ORCID!

- Go to user account (upper right corner with your name)
- Select preferences
- Fill in your **ORCID**



- If you don't have an ORCID yet, you can create one free of charge here https://orcid.org/

- When your user account was created and your ORCID added, please contact Roman Romany (r.romany@fz-juelich.de) or Katrin Seemeyer (k.seemeyer@fz-juelich.de). They will add you to a project group (see chapter 1.2 below).
- Now wait for the notification (red bell) in the database (upper right corner)



- Click on the red bell 

- The notifications will display
- Click on **Join Project Group**

1.2 Project groups

The permissions of the users are handled through the **project groups**. Each user should be a member of a project group. The project groups correspond to the stations (National facilities) the users work for.

See chapter 1.1 above how to join a project group.

2 Instrument description

2.1 General

Leave fields with information not applicable open.

- If you would like to add a comment on a value, use the Remarks section at the end of the page (see also chapter 2.11.1).
- The page is divided in different sections (instrument description, Inlet system etc.) it is recommended to save the information entered after each section.

2.1.1 Format for dates

Select the date with the date selector or enter the date manually in the format

YYYY-MM-DD

where

YYYY	year
MM	month
DD	day

The display for the e.g. Date of full operation will be MMM D, YYYY

When you enter data the display will be YYYY-MM-DD hh:mm:ss e.g. 2022-04-01 00:00:00, you do not need to enter hours, minutes or seconds.

2.1.2 Format for numbers

- **Decimal places** are indicated by a dot. Commas will result in an error.
- **Units** are displayed in the respective field on the right.
  Make sure that the numbers you add correspond to the displayed unit or – if possible – change the unit.

2.2 Instrument Name and alias

An instrument name will usually be suggested. In the suggested name the pattern described below (chapter 2.2.1). Replace the corresponding data in the suggested schema.

Note: If you have already submitted data to the EBAS data portal and your data is available there, add the instrument name then to the **Alias**.

If you have not submitted data to the EBAS data portal yet, just leave the Alias field open.

2.2.1 Pattern Instrument Name

For the Instrument Name use the pattern

component_InstrumentType_xx_NFName

where:

Component: NMHCs, OVOCs, NOx (NO, NO2), Condensables

Instrument Type:

- NOx instruments: CLD, CAPS, DOAS, QCL, OA-ICOS

  If you have a different instrument type than the types given in the drop-down list for Instrument type use your instrument type (abbreviated version of the type).

Note: Instrument types for NOx instruments in the field instrument type are given in the long, not the abbreviated form or the type as in the name of the instrument.

- GC instruments: GC_online, GC_offline
- condensables

xx: indivdual Name (not more than 15 characters) – use especially if the name without xx would be not unique, e.g. the instrument serial number, for GC (online) instruments use the serial number of the Air Sampling System and for GC (off-line) the serial number of the Introduction device.

NFName: short name of the National Facility

2.3 PID

The PID will be added by the Central Facility (CiGas), leave it open.

2.4 Operator(s)

Operator(s) must be registered users of the database (see chapter 1.1). The users can be included as operators.

- Select the instrument description you want to add an operator
- Click on **Edit Object** at the bottom of the page. 

- Go to **Operators** at upper part of the page
- click on  to add the operator
- Select the person from the list
- Add the Expertise level of the operator

2.5 Status

Possible status are

- Operational
- Installed
- Under construction
- Planned
- Retired

  This status should not be used for instruments newly added to the database. The status **retired** is only used if an instrument is in the database for some time and then retired. If the status retired has been selected information on Date end of operation (see also chapter 2.6) will be requested.

2.6 Date end of operation

This will only appear if the status **retired** (see chapter 2.5 above) has been selected. In that case add the date of end of operation in the format yyyy-mm-dd.

2.7 Date of full operation

The date you will initially find in this field is the date the template was generated, replace this with the date of full operation of the instrument. When inserting the date please use the correct format (see chapter 2.1.1 Format for dates).

2.8 Inlet line filter upper and lower mesh size

The mesh size of the inlet line filter can either be given as one value upper and lower → mesh size the same or as a range → upper mesh size larger than lower mesh size.

2.9 Certificates of scales/standards

The information on the certificate of scales/standards used for the instrument should be entered before linking the certificate to the instrument.

A link to a blank form for the certificate will be provided by CiGas.

To add the information on the certificate of scale used with this instrument

- Select the certificate
- Click on edit object 

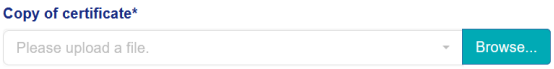
- Fill in supplier and add a copy of the certificate

2.9.1 Supplier

ACTRIS CiGas measurements of NOx and NMHC must be traceable to valid NPL standards. For biogenic VOCs a NIST standard should be used.

2.9.2 Certificate

Here, you have to provide a copy of the standard you use.

- Under copy of certificate 

- click on **Browse…**
- select the pdf file of the certificate
- click on **Open**

If the validity of your standard has expired and a new certificate should be added, **do not delete** the old certificate, just add the new one and link it to the instrument used for calibration.

After entering all the information on the certificate save it and link it to the instrument(s).

To **link a (new)** certificate to an instrument

- Go to the section **Calibration - Scales** in the lower part of the page
  click on  to add a certificate

- Select the certificate from the list.

2.10 Modules (ozone and metereology instruments)

Some instruments can be flexible used with different other instruments. In this database these instruments are called modules. For modules only some basic information is collected and they are usually linked to the NOx instruments.

2.10.1 Ozone instruments

Each NOx instrument should be linked to an ozone instrument a meteorology instrument. After adding the basic information to the ozone instrument and meteorology instrument – instrument name - using the schema below, instrument type, manufacturer, model, serial number – you can link the instrument to the NOx instrument:

In the section Auxiliary measurements, for ozone instrument you select the ozone instrument from the list.

2.10.1.1 Instrument name for ozone instruments

For the Instrument Name of the ozone instrument use the pattern

Ozone_InstrumentType_xx_NFName

where:

Instrument Type: CLD, UV

If you have a different instrument type than the types given in the drop-down list for Instrument type use your instrument type (abbreviated version of the type).

xx: individual Name (not more than 15 characters) – use especially if the name without xx would be not unique. We recommend using the instrument serial number here.

NFName: short name of the National Facility, if you are unsure about the correct abbreviation use in this database, lookup the facility here https://cigas-box.fz-juelich.de/login/objects/?action_type_ids=2

2.10.2 Meteorology instruments

Like for the ozone instruments (see above) you fill out the required data Instrument name – using the schema given below, instrument manufacturer, instrument model and serial number and save the information.

In the section Auxiliary measurements, for meteorology instrument you select the meteorology instrument from the list.

2.10.2.1 Instrument name for meteorology instruments

For the Instrument Name of the meteorology instruments use the pattern

Meteorology_xx_NFName

where:

xx: individual Name (not more than 15 characters) – use especially if the name without xx would be not unique. We recommend using the instrument serial number here.

NFName: short name of the National Facility, if you are unsure about the correct abbreviation use in this database, lookup the facility here https://cigas-box.fz-juelich.de/login/objects/?action_type_ids=2

2.11 Notes

2.11.1 Remarks

In the **remarks** section general remarks or additional information on the instrument can be given.

If you would like to add comments on a specific value, add the label and you comment, e.g.,

- Measurement height above building: We do not use inlet above building.

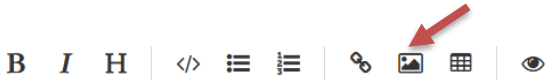
If you want to add a structured text, use the the (numbered) **list** option, otherwise line breaks will be removed.

2.11.2 Picture

In this section, you can add a picture of your instrument by (optional)

- Select the instrument, you want to add a picture
- Click on **edit object** 

- Go to the section picture at the end of the page
- click on upload image (see below)



- select picture
- click on **open**
- **save** instrument description

3 Instrument descriptions taken from the xls questionnaire

1. Check if instrument name is correct
   a. If you have already submitted data to the EBAS data portal and your data is available there, add the name used in the EBAS data portal to the **Alias** Field (see Notes chapter 2.2)
   b. If you have not previously submitted data to the EBAS data portal use the name pattern described in chapter 2.2.
2. Check the data taken from the xls questionnaire and correct, if necessary.

Check especially if

- All compounds measured and submitted with this instrument are added
- All certificates for scales used with this instrument are added
- Ozone and meteorology instruments are

3. Add additional data requested - if applicable.
4. If there are comments from the Katrin or the reviewers in the Remarks section, delete the remarks for issues you edited.
5. **Save** 

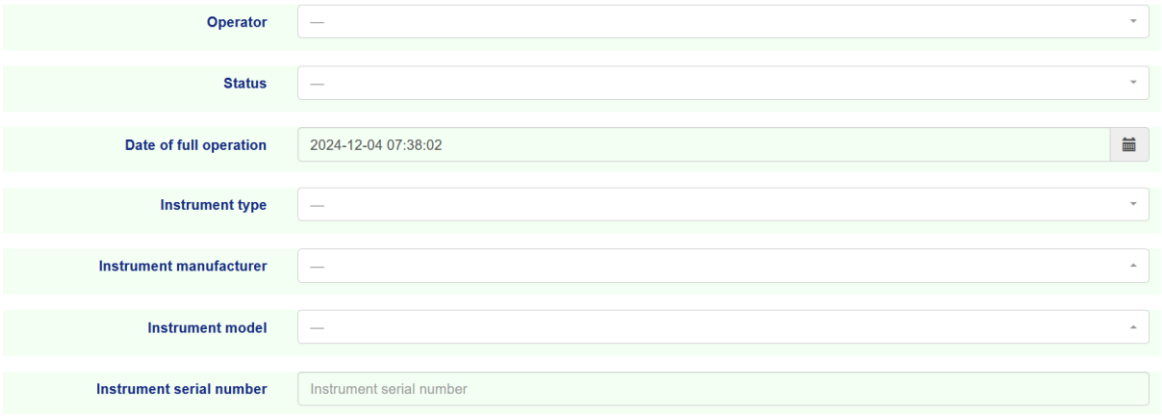
4 Update schema

If there have been changes in the schema of an object (e.g. instrument description) the button **Update Schema** 

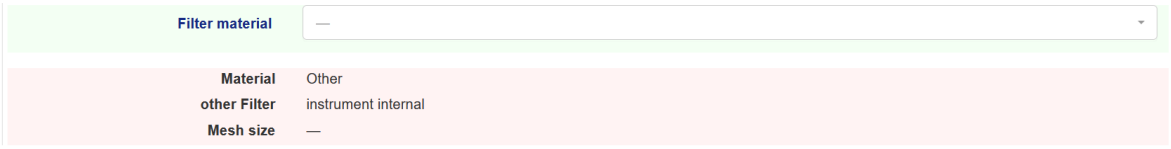
will be displayed next to the **Edit** button.

If you click on **Update Schema**, the object will be displayed in the edit mode and changes will be highlighted, e.g.

new fields are highlighted in **green** (see below)



If existing content has been removed due to incompatibility with the new conditions, it will be highlighted in **red**, e.g., (see below)



Go through these issues and add or correct the data of your instrument(s).

5 FAQ

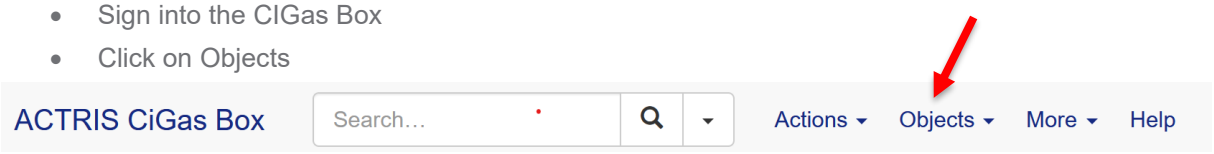
5.1 How can I find my instruments/all instrument of my National facility?

Every user of the ACTRIS CiGas Box can see (READ) every information on all instruments in the database.

There are a number of ways to find the instruments you have access to (WRI'TE permission).

1.

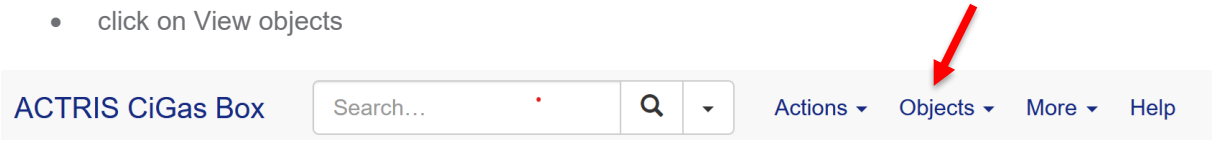
- Sign into the CIGas Box
- Click on Objects



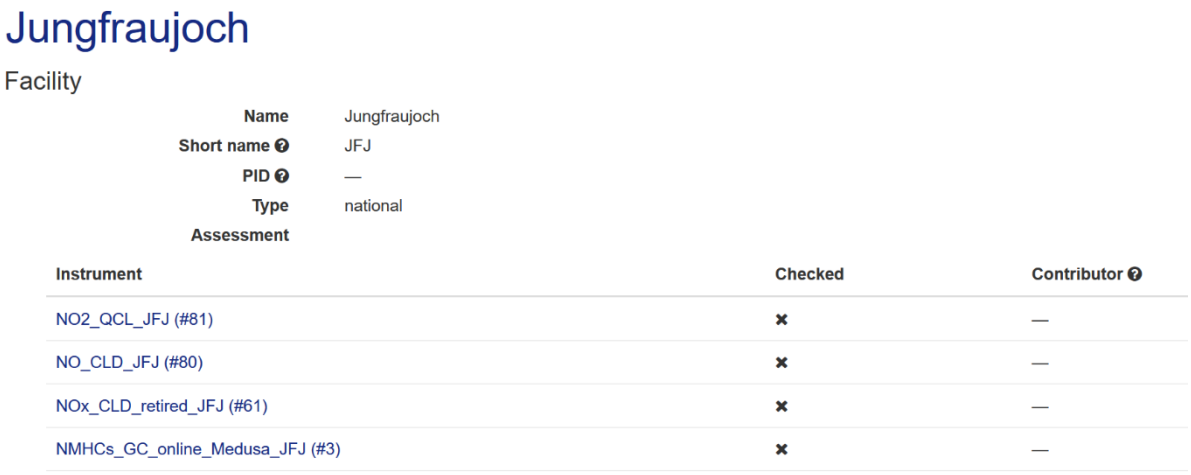
- Select **Objects with WRITE permissions**
- If necessary – filter by Action type instrument

2.

- Sign into the CiGas Box
- click on View objects



- select **Facilities**
- click on the name of your (National) Facility
- like in the example below from the National Facility Jungfraujoch some basic information on the facility and their instruments is displayed.
  The instrument name is a link to the information on the instrument



Jungfraujoch

Facility

Name	Jungfraujoch
Short name	JFJ
PID	—
Type	national
Assessment	

Instrument	Checked	Contributor
NO2_QCL_JFJ (#81)	✖	—
NO_CLD_JFJ (#80)	✖	—
NOx_CLD_retired_JFJ (#61)	✖	—
NMHCs_GC_online_Medusa_JFJ (#3)	✖	—

3. Users who enter the information on the instruments of their (National) facility usually receive a links to the blank templates for the instrument information by email.
   If you save this email or the link to the instruments you can also access your instruments this way.