

X-Ray Diffraction User Rules

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1. Introduction

The Institute of Glass and Ceramics (WW3) operates an x-ray diffractometer for room temperature characterization of the crystal structure of materials including a grazing incidence arrangement. This equipment is open to different appropriately trained users within the WW3 as well as outside university institutions (§3 User groups) for independent work (§4 Self-use) according to the time capacities. The use in cooperation (§5 cooperation) and for service orders (§6 Service) as well as the costs of use (§7 Costs of use) are regulated in the following paragraphs.

2. Equipment

Users have access to a D8 Advance eco, Bruker AXS, Powder diffractometer equipped with Cu source, linear position sensitive (LynxEye XE) detector, and grazing incidence diffraction capabilities. A current listing of the respective instrument features, instrument equipment, and accessories that can be used can be found on the WW3 website: www.glass-ceramics.tf.fau.de.

3. User groups

First of all, members of the Friedrich-Alexander-University Erlangen-Nuremberg who want to use the services of the WW3 in order to fulfill their tasks in research and teaching or in the context of their studies are eligible as users. The access of external users is possible in special cases on request.

The use of the equipment at WW3 is divided into three groups:

- Self-use (see §4) – for users with regular use requirements
- Use in cooperation (see §5) – possible for all users
- As a service (see §6) – possible for all users

4. Self-use

4.1. Access

Scientific staff and students of FAU who require independent use of XRD should, after consultation with the head of their institute or working group (for clarification of the need for independent use), responsible person at WW3 (see website) to check the feasibility of their project and the scientific requirements. Independent access requires the following conditions: Successful participation in the general laboratory instruction and the safety instruction X-ray protection, which are offered by the staff of the WW3. Safety instruction must be completed prior to equipment instruction and repeated at least annually.

4.2. Device booking (online booking system)

After successful completion of the initial training, users are registered to use the online booking system. This allows them to reserve working hours themselves in advance according to the current occupancy schedule within the usual hours of use (Mondays - Fridays from 8 am to 6 pm). Currently, up to 2 days can be reserved in advance within the next 3 weeks to accommodate the usage requests of as many users as possible. Detailed instructions on how to use the booking system will be given to each user upon registration. In case of overbooking or other special cases, the management of the WW3 XRD regulates the requests according to urgency and feasibility.

4.3. Cancellation or non-utilization of booking appointments.

Cancellations are possible up to 24 hours before the respective period of use. In case of no-show (without cancellation) or late cancellation of the booking within less than 24 hours, the user may lose access to the equipment. WW3 can postpone or cancel diffractometer bookings for technical or urgent organizational reasons after consultation with the persons concerned.

4.4. User obligations

- Each user will comply with the laboratory rules of the WW3. This means above all to use the provided equipment properly, safely, and with care, only applying methods in which the respective users have been instructed.
- Instructions of the person in charge of the equipment as well as of the other personnel have to be followed. The users undertake to inform the person responsible for the equipment or laboratory immediately if equipment defects or safety risks are discovered. The aim is to exclude or minimize consequential damage to the equipment or possible injury to users by rectifying defects at an early stage.
- Experimental materials that could pose safety risks must not be brought into the facility without prior consultation with the WW3. Employees at WW3 must be made aware of the necessary safety measures.
- All users are required to attend annual safety briefings (X-ray protection).
- Violation of the user regulations can lead to exclusion from further work in the WW3. In particular, failure to attend the annual safety briefings will lead to immediate withdrawal of the user permit.
- All users of the WW3 undertake to comply with the rules of good scientific practice (http://www.dfg.de/foerderung/grundlagen_rahmenbedingungen/gwp/).
- Data backup: Users are responsible for backing up their own data. Data must be backed up from the respective device computer within one month. Older data will be deleted by WW3 without further warning or backup in case of lack of capacity.
- IP: In the case of independent research by the self-users of WW3, the intellectual property rights remain with the users.
- Publications: When publishing research results, the user must refer to the work done at WW3, for example in the acknowledgement.

5. Cooperation

The use of the equipment in cooperation with the WW3 can be requested from the WW3. This possibility of use is intended for more complex scientific questions that include use of advanced techniques and are in the own scientific interest of WW3. In this case, the investigations are then carried out by WW3 staff. The management of the XRD decides on the project, based on personnel and equipment possibilities and after checking the feasibility of the project.

- IP: In the case of scientific collaborations, the intellectual property rights to the results obtained in/through WW3 remain with WW3.
- Publications: The joint publication of the results together with the cooperation partners is always aimed at.

6. Service

Service orders can only be carried out to a limited extent at WW3. Service orders are to be requested from the WW3. For the costs and possible processing period of the respective order, an individual offer is prepared according to the individual circumstances.

7. Costs of use

For independent users that are members of the WW3 or the university, there are no user fees. However, for users interested in a cooperation (§5) or service (§6), user fees can apply depending on an individual basis after consultation with the WW3. Following this, an offer will be provided detailing the costs of use.