

# MAPEX-CF grants

April 2024

MAPEX Core Facility for Materials Analytics

# MAPEX-CF grants

April 2024

# Contents

Types of research grants – overview .....	4
Research Grant for Early Career Researchers - Outgoing .....	5
Research Grant for Early Career Researchers - Incoming.....	7
Research Grant for Early Career Researchers - Internal .....	9
Proposal Guidelines – Material Analysis Grants .....	11
Research Grant for Correlated Workflows.....	13
Proposal Guidelines – Research Grant for Correlated Workflows.....	15

# Types of research grants – overview

The MAPEX Center for Materials and Processes via the MAPEX Core Facility for Materials Analytics (MAPEX-CF) invites Early Career Researchers (master students close to graduation, doctoral researchers, and postdocs) to apply for short-term research grants for materials analysis.

The different types of grants are summarized in Table 1:

*Table 1: Types of research grants offered by the MAPEX-CF to Early Career Researchers.*

Type	Applicant	Host	Funding
<a href="#">Outgoing</a>	From MAPEX	Scientists at external institution*	Travel and material analysis
<a href="#">Incoming</a>	From external institutions*	MAPEX member	Travel and material analysis
<a href="#">Internal</a>	From MAPEX and/or the University of Bremen	MAPEX member	Material analysis

Additionally, the MAPEX-CF offers grants to all researches (doctoral researchers, postdocs, and principal investigators) within MAPEX. These grants align with the scientific aim of the Core Facility and are summarized in Table 2:

*Table 2: Types of research grants offered by the MAPEX-CF in line with its scientific aims.*

Type	Goal	Funding
<a href="#">Correlated Workflows</a>	Analysis of the same sample region with different methods	Minor equipment and material analysis

For more information on the grants' conditions, eligibility, and application procedure, please refer to the individual research grant documents or click on the links in the tables above.

# Research Grant for Early Career Researchers - Outgoing

The MAPEX Center for Materials and Processes via the MAPEX Core Facility for Materials Analytics (MAPEX-CF) invites Early Career Researchers from MAPEX to apply for short-term research grants to perform material characterizations at an international or another German research institution.

The work performed must be related to at least one of the following materials' analytics areas of MAPEX-CF: 3D Materials Analytics, Electron Microscopy, Surface Analytics, Spectroscopy, or X-ray Diffraction. For a successful application, a strong connection of the project to current topics within the MAPEX research landscape is essential. This funding scheme aims to establish and foster new interdisciplinary collaborations between groups from MAPEX and external research institutions. In particular, this grant intends to enable preliminary experiments for future proposals to be submitted, for example to the *Deutsche Forschungsgemeinschaft* (DFG). Activities that clearly add value to doctoral or master's research, such as supplementary materials analysis not possible at the University in Bremen, are also considered for funding.

## Eligibility

The grants are open to Early Career Researchers (master students close to graduation, doctoral researchers, and postdocs) from MAPEX research groups. Preference will be given to projects which initiate new collaborations between research groups and to members of groups who have not yet benefited from a MAPEX-CF grant.

## Conditions

The grants include travel and materials analysis support as specified below:

Support for international travel:

- a) Country-specific living allowance following the DAAD *Aufenthaltszuschalen 2024*.
- b) Travel costs for a return trip along the least expensive route and up to the maximum rates set by the DAAD *Reisekostenzuschalen 2024*.

Support for domestic travel:

- a) A flat-rate allowance of 70 € per day, totalizing a maximum of 350 € per week or a maximum of 1200 € per month.
- b) Travel costs for a return trip along the least expensive route.

Materials analysis support:

- a) A contribution to materials analysis costs (instrument fees, sample shipping, data analysis costs) limited to a maximum amount of 2000 €.

Travel support is limited to a maximum amount of 2000 € in all cases. Additional support for family members limited to a maximum amount of 500 € is possible. The reimbursement of travel expenses will be calculated according to the University of Bremen guidelines for travel ("*Bremer Reisekostengesetz*"). Special regulations for employees of non-university research institutes as well as for accompanying family members apply. Under specific circumstances and after proper justification elucidated in the proposal text, the maximum amount of funds for materials' analysis can exceed 2000 €. Proposals connected to projects with third-party funding that are already running cannot be funded. Proposals can be submitted quarterly with deadlines on January 31<sup>st</sup>, April 30<sup>th</sup>, July 31<sup>st</sup>, and October 30<sup>th</sup>.

## Procedure

1. Applications must be submitted in electronic form to the MAPEX-CF Executive Committee, represented by the MAPEX-CF Instrument Manager, Dr. Seemann, no later than one month before the envisaged start of the research stay or measurement time. Candidates are strongly encouraged to contact Dr. Seemann before the application for details on the funding availability.

2. Evaluation: A committee appointed by the MAPEX-CF Executive Board will decide whether to fund the proposal or not, depending on the scientific qualification of the candidate, the quality of the proposed project, and availability of funding. The result of the proposal assessment and the granted amount will be communicated to the applicant usually within three weeks from the quarterly deadline to which the application was submitted.

3. Report: After their measurements or research stay, the funded candidates must provide a written report (one to two A4 pages) to the MAPEX-CF. Furthermore, they must provide a short paragraph summarizing their experience and a picture for the MAPEX-CF website.

## Application

Please create a single PDF document comprising the following documents:

- (a) Text of the proposal following the guidelines and not exceeding four A4 pages
- (b) Curriculum Vitae (max. two pages) including a list of the most relevant publications and conference contributions
- (c) A letter from the host (scientist from an external institution), including a statement confirming the feasibility of the experiments as well as that the facilities and the workspace needed to realize the proposed project will be available
- (d) A letter of recommendation from your direct supervisor or group leader (MAPEX member)
- (e) A signed declaration that
  - (i) the candidate agrees to adhere to the standard rules of good scientific practice set by the DFG
  - (ii) in case of publications of results obtained during the research stay or obtained with measurements funded by this grant, funding through the MAPEX-CF research grant will be explicitly acknowledged
- (f) For doctoral and master students: Proof that you are actively pursuing a degree at the University of Bremen

Applicants who do not comply with the formal rules above will not be considered for funding.

A limitation on the number of funded proposals per MAPEX research group may take place to assure a fair distribution of the grants. Female and diverse applicants are strongly encouraged to apply.

Applications must be submitted via email to:

Dr. Wilken Seemann

mapexcf@uni-bremen.de

# Research Grant for Early Career Researchers - Incoming

The MAPEX Center for Materials and Processes via the MAPEX Core Facility for Materials Analytics (MAPEX-CF) invites Early Career Researchers from external research institutions to apply for short-term research grants to perform material characterizations at MAPEX-CF.

The work performed must be related to at least one of the following materials' analytics areas of MAPEX-CF: 3D Materials Analytics, Electron Microscopy, Surface Analytics, Spectroscopy, or X-ray Diffraction. For a successful application, a strong connection of the project to current topics within the MAPEX research landscape is essential. This funding scheme aims to establish and foster new interdisciplinary collaborations between groups from MAPEX and external research institutions. In particular, this grant intends to enable activities that add value to research projects, such as supplementary materials analysis that is not available at the home institution.

## Eligibility

The grants are open to Early Career Researchers (master students close to graduation, doctoral researchers, and postdocs) from research institutions outside of Bremen. Preference will be given to projects which initiate new collaborations with (international) research groups and for research stays in groups that have not yet benefited from a MAPEX-CF grant.

## Conditions

The grants include travel and materials analysis support as specified below:

Travel support:

- a. A flat-rate allowance of 70 € per day, totalizing a maximum of 350 € per week or a maximum of 1200 € per month.
- b. Travel costs for a return trip along the least expensive route and up to the maximum rates set by the DAAD [Reisekostenpauschalen 2024](#).

Materials analysis support:

- a. A contribution to materials analysis costs (instrument fees, sample shipping, data analysis costs) limited to a maximum amount of 2000 €.

Travel support is limited to a maximum amount of 2000 € in all cases. Additional support for family members limited to a maximum amount of 500 € is possible. The reimbursement of travel expenses will be calculated according to the University of Bremen guidelines for travel ("*Bremer Reisekostengesetz*"). Under specific circumstances and after proper justification elucidated in the proposal text, the maximum amount of funds for materials' analysis can exceed 2000 €. Proposals connected to projects with third-party funding that are already running cannot be funded. Proposals can be submitted quarterly with deadlines on January 31<sup>st</sup>, April 30<sup>th</sup>, July 31<sup>st</sup>, and October 30<sup>th</sup>.

## Procedure

1. Applications must be submitted in electronic form to the MAPEX-CF Executive Committee, represented by the MAPEX-CF Instrument Manager, Dr. Seemann, no later than one month before the envisaged start of the research stay or measurement time. Candidates are strongly encouraged to contact Dr. Seemann before the application for details such as funding availability, the indication of potential scientific hosts as well as discussions regarding the project feasibility together with the application scientists and MAPEX Principal Investigators.

2. Evaluation: A committee appointed by the MAPEX-CF Executive Board will decide whether to fund the proposal or not, depending on the scientific qualification of the candidate, the quality of the proposed project, and availability of funding. The result of the proposal assessment and the granted amount will be communicated to the applicant usually within three weeks from the quarterly deadline to which the application was submitted.

3. Report: After their research stay, the funded candidates must provide a written report (one to two A4 pages) to the MAPEX-CF. Furthermore, they must provide a short paragraph summarizing their experience and a picture for the MAPEX-CF website.

## Application

Please create a single PDF document comprising the following documents:

- (a) Text of the proposal following the guidelines and not exceeding four A4 pages
- (b) Curriculum Vitae (max. two pages) including a list of the most relevant publications and conference contributions
- (c) A letter from the host (MAPEX member), including a statement confirming the feasibility of the experiments as well as that the facilities and the workspace needed to realize the proposed project will be available
- (d) A letter of recommendation from your direct supervisor or group leader
- (e) A signed declaration that
  - (i) the candidate agrees to adhere to the standard rules of good scientific practice set by the DFG
  - (ii) in case of publications of results obtained during the research stay or obtained with measurements funded by this grant, funding through the MAPEX-CF research grant will be explicitly acknowledged
- (f) For doctoral and master students: Proof that you are actively pursuing a degree

Applicants who do not comply with the formal rules above will not be considered for funding.

A limitation on the number of funded proposals per MAPEX research group may take place to assure a fair distribution of the grants. Female and diverse applicants are strongly encouraged to apply.

Applications must be submitted via email to:

Dr. Wilken Seemann

mapexcf@uni-bremen.de



# Research Grant for Early Career Researchers - Internal

The MAPEX Center for Materials and Processes via the MAPEX Core Facility for Materials Analytics (MAPEX-CF) invites Early Career Researchers from MAPEX and the University of Bremen to apply for short-term research grants to perform material characterizations at MAPEX-CF.

The work performed must be related to at least one of the following materials' analytics areas of MAPEX-CF: 3D Materials Analytics, Electron Microscopy, Surface Analytics, Spectroscopy, or X-ray Diffraction. For a successful application, a strong connection of the project to current topics within the MAPEX research landscape is essential. This funding scheme aims to establish and foster new interdisciplinary collaborations between groups within MAPEX and the University of Bremen. In particular, this grant intends to enable preliminary experiments for future proposals to be submitted, for example to the *Deutsche Forschungsgemeinschaft* (DFG). Activities that clearly add value to doctoral or master's research, such as supplementary materials analysis, are also considered for funding. In this case, it must be explained why these experiments were not already planned and budgeted before the start of the work and how the results could contribute to the increase of scientific knowledge and the qualification of the candidate.

## Eligibility

The grants are open to Early Career Researchers (master students close to graduation, doctoral researchers, and postdocs) from MAPEX and/or University of Bremen research groups. Preference will be given to projects which initiate new collaborations between research groups and to members of groups who have not yet benefited from a MAPEX-CF grant.

## Conditions

The grants include support for materials analysis costs (instrument fees, consumables, equipment, sample shipping, data analysis costs, and student assistants' funding) limited to a maximum amount of 2000 €. Under specific circumstances and after proper justification elucidated in the proposal text, the maximum amount of funds can exceed 2000 €. Proposals connected to projects with third-party funding that are already running cannot be funded. Proposals can be submitted quarterly with deadlines on January 31<sup>st</sup>, April 30<sup>th</sup>, July 31<sup>st</sup>, and October 30<sup>th</sup>.

## Procedure

1. Applications must be submitted in electronic form to the MAPEX-CF Executive Committee, represented by the MAPEX-CF Instrument Manager, Dr. Seemann, no later than one month before the envisaged start of the measurement time. Candidates are strongly encouraged to contact Dr. Seemann before the application for details such as funding availability, the indication of potential scientific hosts as well as discussions regarding the project feasibility together with the application scientists and MAPEX Principal Investigators.

2. Evaluation: A committee appointed by the MAPEX-CF Executive Board will decide whether to fund the proposal or not, depending on the scientific qualification of the candidate, the quality of the proposed project, and availability of funding. The result of the proposal assessment and the granted amount will be communicated to the applicant usually within three weeks from the quarterly deadline to which the application was submitted.

3. Report: After their measurements, the funded candidates must provide a written report (one to two A4 pages) to the MAPEX-CF. Furthermore, they must provide a short paragraph summarizing their experience and a picture for the MAPEX-CF website.

## Application

Please create a single PDF document comprising the following documents:

- (a) Text of the proposal following the guidelines and not exceeding four A4 pages
- (b) Curriculum Vitae (max. two pages) including a list of the most relevant publications and conference contributions
- (c) A letter from the host (MAPEX Principal Investigator), including a statement confirming the feasibility of the experiments as well as that the facilities and the workspace needed to realize the proposed project will be available
- (d) A letter of recommendation from your direct supervisor or group leader
- (e) A signed declaration that
  - (i) the candidate agrees to adhere to the standard rules of good scientific practice set by the DFG
  - (ii) in case of publications of results obtained during the research stay or obtained with measurements funded by this grant, funding through the MAPEX-CF research grant will be explicitly acknowledged
- (f) For doctoral and master students: Proof that you are actively pursuing a degree

Applicants who do not comply with the formal rules above will not be considered for funding.

A limitation on the number of funded proposals per MAPEX and / or University of Bremen research group may take place to assure a fair distribution of the grants. Female and diverse applicants are strongly encouraged to apply.

Applications must be submitted via email to:

Dr. Wilken Seemann

mapexcf@uni-bremen.de

# Proposal Guidelines – Material Analysis Grants

<Proposal must have a maximum of four pages (not including the cover page). Grey text is explanatory and can be removed>

<Cover page>

## Title of the proposed project

Applicant	Title, first name, last name, research institution, city, country contact (mail and phone)
Type of grant	outgoing / incoming / internal
Period of stay or experiments	initial date (dd.mm.yy) to final date (dd.mm.yy)
Host and host institution	Title, first name, last name research institution, city, country
Supervisor (if applicable) and home institution	Title, first name, last name research institution, city, country
Materials Analytics area(s)	area(s) of MAPEX-CF which the project is related to
For doctoral and master students: start and planned end of studies	initial date (mm.yy), prospective final date (mm.yy)

## Project idea

<Describe the original idea behind your proposal, where it stands in its research field, and briefly outline its most significant aspects>

[Text]

## Description of the proposal

<Provide the scientific basis of the proposal, its objectives, the planned work schedule, and how it correlates with the research areas of MAPEX-CF>

[Text]

## Experimental technique(s), required set-up(s), measurement strategy, and sample details

<Describe which facilities and characterization techniques will be used, which samples are going to be produced and/or studied>

[Text]

## Results expected and their significance in the respective field of research

<Describe the expected scientific outcome of the experiments/research stay and how can it possibly impact the current research field>

[Text]

## Cost Estimation

<Estimate the project-related costs, including when applicable, travel (restricted to 2000 €), consumable goods, student assistants and instrument fees>

[Text]

## Cooperation Partners

<Name all the partners who will be involved in the implementation of your proposal>

[Title, first name, last name, research institution, city, country]

**Impact: Information on future proposals for third-party funding and/or the initiation of new collaborations and/or on the impact of the proposed experiments on the doctoral/master's thesis**

<The MAPEX-CF grant aims to enable preliminary experiments for proposals in preparation (e.g. to the DFG), to add value to doctoral/master's research and foster new collaborations. Briefly explain how the measurements proposed in this project are expected to contribute to such ends>

[Text]

## References

<Provide a list with a maximum of 10 references related to your application>

[[1] Authors, Journal/Year/Issue/Page, Link e.g. DOI

[2] Authors, Journal/Year/Issue/Page, Link e.g. DOI...]

# Research Grant for Correlated Workflows

The MAPEX Center for Materials and Processes via the MAPEX Core Facility for Materials Analytics (MAPEX-CF) invites Researchers from MAPEX to apply for research grants to perform exploratory projects for the correlation of different material characterization methods available in the MAPEX-CF. These correlated workflows are meant to test, image and analyze the same sample regions across several, mutually complementary instruments and length scales.

The work performed must use at least two different characterization methods and be related to at least one of the following materials' analytics areas of MAPEX-CF: 3D Materials Analytics, Electron Microscopy, Surface Analytics, Spectroscopy, or X-ray Diffraction. A combination of different areas of the Core Facility is encouraged. The originality of the idea is an important factor in the evaluation of proposals, the projects should establish new connections between the characterization methods. For a successful application, a strong connection of the project to current topics within the MAPEX research landscape is essential.

This funding scheme aims to establish and foster interdisciplinary collaborations between different groups from MAPEX. It is also meant to showcase examples of correlative workflows possible in the framework of the MAPEX-CF for all MAPEX members and emphasize the potential of the instrumentation available in the Core Facility as well as the benefit of cooperation between the different research areas.

## Eligibility

The grants are open to all researchers (doctoral researchers, postdocs, and principal investigators) from MAPEX research groups. Preference will be given to projects which initiate new collaborations between research groups and to members of groups who have not yet benefited from a MAPEX-CF grant. Preference will also be given to applications from early career researchers and projects which aim to correlate more than two different characterization methods.

## Conditions

The grants will be awarded up to a maximum of 15.000 € according to a calculation included in the application. Funding can be requested for materials analysis support, software, personnel, and minor equipment / consumables (e.g. redesigned sample holders) required to adapt the existing instruments to the new correlated workflow. The grant can be used for minor additions to instruments (e.g. detectors), if these additions are required for the envisaged correlated workflow.

Under specific circumstances and after proper justification elucidated in the proposal text, the maximum amount of funds can exceed 15.000 €. Proposals connected to projects with third-party funding that are already running cannot be funded. Proposals must be submitted until April 30<sup>th</sup> 2024.

## Procedure

1. Applications must be submitted in electronic form to the MAPEX-CF Executive Committee, represented by the MAPEX-CF Instrument Manager, Dr. Seemann. Candidates are strongly encouraged to contact Dr. Seemann before the application for details on the funding availability.
2. Evaluation: A committee appointed by the MAPEX-CF Executive Board will decide whether to fund the proposal or not, depending on the scientific qualification of the candidate, the quality of the proposed project, and availability of funding. The result of the proposal assessment and the granted amount will be communicated to the applicant usually within three weeks from the deadline to which the application was submitted.
3. Report: After the conclusion of the project, the funded candidates must provide a written report (one to two A4 pages) to the MAPEX-CF. Furthermore, they must provide a short paragraph summarizing their results and a picture for the MAPEX-CF website.

## Application

Please create a single PDF document comprising the following documents:

- (a) Text of the proposal following the guidelines and not exceeding four A4 pages
- (b) Curriculum Vitae (max. two pages) including a list of the most relevant publications and conference contributions related to the project
- (c) A letter from the principal investigators of all instruments used in the proposed project, including a statement confirming the feasibility of the experiments as well as that the facilities and the workspace needed to realize the proposed project will be available
- (d) For doctoral candidates: A letter of recommendation from your direct supervisor or group leader (MAPEX member)
- (e) A signed declaration that
  - (i) the candidate agrees to adhere to the standard rules of good scientific practice set by the DFG
  - (ii) in case of publications of results obtained with measurements funded by this grant, funding through the MAPEX-CF research grant will be explicitly acknowledged
- (f) For doctoral candidates: Proof that you are actively pursuing a degree at the University of Bremen.

Applicants who do not comply with the formal rules above will not be considered for funding.

A limitation on the number of funded proposals per MAPEX research group may take place to assure a fair distribution of the grants. Female and diverse applicants are strongly encouraged to apply.

Applications must be submitted via email to:

Dr. Wilken Seemann

mapexcf@uni-bremen.de

# Proposal Guidelines – Research Grant for Correlated Workflows

<Proposal must have a maximum of four pages (not including the cover page). Grey text is explanatory and can be removed>

<Cover page>

Title of the proposed project

Applicant	Title, first name, last name, research institution, city, country contact (mail and phone)
Type of grant	Correlated Workflows
Period of experiments	initial date (dd.mm.yy) to final date (dd.mm.yy)
Supervisor (if applicable) and home institution	Title, first name, last name research institution, city, country
Characterization Methods	Methods and Instruments planned to correlate in the proposed project
Materials Analytics area(s)	area(s) of MAPEX-CF which the project is related to
For doctoral and master students: start and planned end of studies	initial date (mm.yy), prospective final date (mm.yy)

## Project idea

<Describe the original idea behind your proposal, where it stands in its research field, and briefly outline its most significant aspects>

[Text]

## Description of the proposal

<Provide the scientific basis of the proposal, the current use of the individual characterization techniques, and the benefit of their correlation to the research field. Outline the planned work schedule and how the project correlates with the research areas of MAPEX-CF>

[Text]

## Experimental technique(s), required set-up(s), measurement strategy, and sample details

<Describe which facilities and characterization techniques will be used and which samples are going to be studied. Provide technical details about how the characterization methods will be correlated>

[Text]

## Cost Estimation

<Estimate the project-related costs, including when applicable, consumable goods, personnel, upgrades to instruments, software tools, and instrument fees>

[Text]

## Cooperation Partners

<Name all the partners who will be involved in the implementation of your proposal>

[Title, first name, last name, research institution, city, country]

**Impact: Information on future proposals for third-party funding and/or the initiation of new collaborations and/or on the impact of the proposed experiments on the doctoral/master's thesis**

<The MAPEX-CF grant aims to enable preliminary experiments for proposals in preparation (e.g. to the DFG), to add value to doctoral/master's research and foster new collaborations. Briefly explain how the measurements proposed in this project are expected to contribute to such ends>

[Text]

## References

<Provide a list with relevant references (maximum of 10) related to your application>

[[1] Authors, Journal, Issue (Year) Page, Link e.g. DOI

[2] Authors, Journal, Issue (Year) Page, Link e.g. DOI ...]



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