



The 21<sup>st</sup> International Workshop on  
**CERAMIC BREEDER BLANKET  
INTERACTIONS**  
**19 – 20th October 2023**  
**Granada, Spain**  
(the week before ICFRM-21)

**First Announcement**

hosted by CIEMAT Fusion National Laboratory  
and IFMIF-DONES Granada



Dear colleagues,

It is my pleasure to invite you to the biannual event that brings together the community of ceramic breeder scientists and technologists: the **21st International Workshop on the Ceramic Breeder Blanket Interactions (CBBI-21)**.

Organized under the auspices of the *IEA Implementing Agreement on the Nuclear Technology of Fusion Reactors*, and in conjunction with the *International Conference on Fusion Materials (ICFRM-21)*, the **CBBI-21** will be held from **19th to 20<sup>th</sup> October 2023**, in the beautiful and historical city of **Granada, Spain**.

As in previous editions, the **CBBI-21** should serve as a focal point for technical discussions and information exchange. Your oral presentations and topical discussions will be essential contributions to support the improvement of the ceramic breeder blanket as the system for tritium fuel production and energy extraction in a fusion energy reactor.

We look forward to meeting you at CBBI-21,

Dr. Carlos Hidalgo

Director, National Fusion Laboratory, CIEMAT,  
Madrid, Spain

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**CBBI-21 Workshop Contacts**

M. González and G. Delgado at the workshop secretary e-mail address:

[CBBI-21@ciemat.es](mailto:CBBI-21@ciemat.es)

**Workshop Location**

The workshop will be held at the city Science Park, Granada, Spain.

## Key Dates

Abstract deadline ..... 1<sup>st</sup> March 2023

Notification to Authors ... 8<sup>th</sup> May 2023

Early Registration ... before 11<sup>th</sup> September

Workshop Opening ... 19<sup>th</sup> October 2023

## Scope

In the context of the CBBI workshop, researchers, engineers and technologists involved in the development of the fusion breeding-blanket solid concept meet to exchange the latest progress in the design, behaviour, testing and modelling of materials and components based on lithium-ceramics.

The workshop usually includes technical presentations and discussions on the status of key issues for ceramic breeder-blanket interactions, with the aim of finding solutions to address in the future.

Closer to the end of ITER, the **CBBI-21** should be the stage to show updates of TBMs development in those countries involved, and a debate forum for its exploitation towards DEMO-like fusion power plants.

The proximity of IFMIF-DONES Granada, as a large materials' testing facility, will allow our community to know first-hand how to be prepared for validating models and testing the behaviour of ceramic breeders with fusion neutrons.

## Workshop Technical Topics

- Ceramic breeder pebble production and lithium enrichment methodology
- Physical properties and microstructure of ceramic pebbles
- Pebble Bed thermo-mechanics: modelling and experiments
- Irradiation behaviour
- T inventory. T transport simulation and release
- Safety issues: lithium corrosion barrier and T permeation coatings
- BB-related neutronics
- Ceramic breeder ITER Test Blanket Modules
- Update on DEMO-like BB designs

## Call for Abstracts

Workshop participants are invited to submit abstracts up to **15th February 2023**.

Please find the abstract format in the template available on the website <https://www.icfrm-21.com/CBBI-21>

Abstracts should be sent by email to the workshop secretariat email address: [CBBI-21@ciemat.es](mailto:CBBI-21@ciemat.es)

Authors will be notified of the acceptance of their contributions by 8 May 2023.

## Publications

The digital edition of proceedings and presentations will be available after the workshop. To be downloaded at the website.

## Hotel Accommodation

For accommodation in Granada during the workshop, please take advantage of the information at the ICFRM-21 web site,

<https://www.icfrm-21.com/accomodation/>

## Workshop information

Please find the information related with the CBBI-21 workshop at

<https://www.icfrm-21.com/cbbi-21/>

CBBI-21 will take place the week before ICFRM-21, both of which will be held in Granada, Spain.

A night tour to the historical and fascinating **Alhambra Palace** will be included during the ICFRM – 21.

On Thursday evening, the traditional joint dinner will be organized in a local Grenadian *cave* with Alhambra views, including a show of singing and dancing, at the expense of the participants.