



# Indian Institute of Technology Bombay

## Department of Metallurgical Engineering & Materials Science

### Central Facility - Broadband Dielectric Spectrometer

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#### **Registration Process:**

##### **Internal Users**

Users within IIT Bombay can apply from <http://drona.ircc.iitb.ac.in>. The form should be completely filled up online and all the sample details must be provided in the requisition form. Users need to be present at the time of analysis on the allotted appointment date/time. If a user wishes to change his/her time slot, an email should be sent immediately to [bds@iitb.ac.in](mailto:bds@iitb.ac.in) requesting change in appointment.

##### **External Users**

#### **1. Academic Institutions:**

You can come personally or send a letter from the Guide/HoD on the Institution's Original Letter Head stating that the analysis is for research purpose, to qualify for academic concession along with the Registration Form and Demand draft. The letter should be addressed to The Convener, Broadband Dielectric Spectrometer central facility, Department of Metallurgical Engineering & Materials Science, IIT Bombay, Powai, Mumbai -400076.

#### **2. National R & D Lab's:**

You can come personally or send a letter signed by an authorized signatory of your Institution on Original Letter Head stating that the analysis is for research purpose along with the Registration Form and Demand draft. The letter should be addressed to The Convener, Broadband Dielectric Spectrometer central facility, Department of Metallurgical Engineering & Materials Science, IIT Bombay, Powai, Mumbai -400076.

#### **3. Industry & Non-Government Agencies:**

You can come personally or send a letter signed by an authorized signatory of your Institution on Original Letter Head stating that the analysis is for research purpose along with the Registration Form and Demand draft. The letter should be addressed to The Convener, Broadband Dielectric Spectrometer central facility, Department of Metallurgical Engineering & Materials Science, IIT Bombay, Powai, Mumbai -400076.

You are requested to mention in your request letter that "We agree to acknowledge the Broadband Dielectric Spectrometer Central Facility of IIT Bombay when the data from the BDS lab is used in our papers/reports/thesis".

The information on such acknowledgements with appropriate reference should be communicated to BDS lab via email [bds@iitb.ac.in](mailto:bds@iitb.ac.in) . Kindly send the complete publication reference (Name of authors/ paper title/ Journal name/volume number/page number /date of issue of the publication etc)

**Charges for external users per sample (Including service taxes):**

<b>Organization</b>	<b>Room temperature</b>	<b>With temperature (within six hours)</b>	<b>After six hours</b>
<b>Academic University/Institutes</b>	500	1000	200/- per hour
<b>National R&amp;D Labs</b>	1000	2000	400/- per hour
<b>Industry/ Non Govt. Agencies</b>	2000	4000	800/- per hour

**General instructions to the users:**

**Payment Mode:** Payment should be made in advance by a Demand Draft (DD) drawn in favour of “The Registrar, IIT Bombay, P and C Account”. The same should be sent to The Convener, Broadband Dielectric Spectrometer central facility, Department of Metallurgical Engineering & Materials Science, IIT Bombay, Powai, Mumbai -400076.

**Appointment:** The users will be informed about their date and time-slot by email. If the day and time-slot is not suitable for you, an email request should be sent immediately for an alternate slot.

**Sample Submission:** Samples are to be submitted at the time of registration or brought along on the date of your appointment for your sample analysis.

**Results:** After the sample analysis is complete the results will be sent by email.

- ✓ The experimental data provided is only for research / development purposes. These cannot be used as certificates in legal disputes.
- ✓ Samples and payment should be sent preferably in the same cover. Samples will not be analyzed till payment is received.

**Instructions for sample preparation**

1. Sample should be **well polished** and having smooth surface.
2. Maximum of **six samples** will be accepted at a time.
3. Maximum sample dimension should be **diameter of 3 cm and thickness 0.3 cm for Low frequency, and diameter 1 cm and 0.2 cm thickness for RF.**
4. After applying silver paste (Conducting coating) to ceramics samples it should be heated at 150°C at least for one hour.