



**National Institute of Technology Karnataka, Surathkal, Mangalore- 575025.**

Department of Chemistry (DST FIST Sponsored Single Crystal X-Ray Diffraction Facility)

Sophisticated Instrument Centre.

## **DST-FIST Sponsored Single Crystal X-Ray Diffraction Facility @ Department of Chemistry**

Bruker Smart Apex Duo single Crystal X-ray Diffractometer has been installed with following specifications under DST-FIST programme.

### **Specifications:**

SMART APEX DUO FULLY AUTOMATIC SINGLE CRYSTAL DIFFRACTOMETER, DUAL SYSTEM WITH COMPACT COPPER MICROFOCUS SOURCE PLUS MOLYBDENUM SEALED TUBE SOURCE WITH PHOTON DETECTOR.

### **General Information:**

- NITK will not have any liability whatsoever arises out of using the analysis report.
- For each analysis, separately coded, labelled and properly packed sample in sufficient quantity should be submitted.
- Analysis report (soft / hard copy) will be given to the client. Please note that interpretation of the result, conclusion based on result, certificate, recommendation etc will not be provided with the analysis.
- Clients are not encouraged to remain present during the analysis, unless the nature of the analysis is such that client's inputs are required during carrying out of the analysis. In such cases a prior appointment must be fixed with the concerned faculty.
- Based on the type of analytical work, intellectual inputs for interpretation of data or development of analytical methods can be provided. For this service, prior discussion with the concern faculty and payment of analysis charge is necessary before starting the work.

### **Address for submitting samples and analysis charges:**

The Head,  
Department of Chemistry,  
National Institute of Technology Karnataka (NITK),  
Srinivasnagar, Surathkal, 575 025  
KARNATAKA, INDIA



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## Single Crystal X-Ray Diffraction Analysis Charges

### For Internal Users (NITK)

- |                        |                           |
|------------------------|---------------------------|
| 1. Consumable charges  | <b>Extra</b>              |
| 2. Structural Solution | <b>Rs. 500 per sample</b> |

### Academic Institutions

- |  |                            |
|--|----------------------------|
| 1. Unit cell determination at room temperature   | <b>Rs. 500 per sample</b>  |
| 2. Unit cell determination using liquid nitrogen | <b>Rs. 750 per sample</b>  |
| 3. Data collection at room temperature           | <b>Rs. 2500 per sample</b> |
| 4. Data collection under liquid nitrogen         | <b>Rs. 3000 per sample</b> |
| 5. Structure solution                            | <b>Rs. 1500 per sample</b> |

### Industry/ R & D laboratory

- |  |                             |
|--|-----------------------------|
| 1. Unit cell determination at room temperature   | <b>Rs. 2000 per sample</b>  |
| 2. Unit cell determination using liquid nitrogen | <b>Rs. 3000 per sample</b>  |
| 3. Data collection at room temperature           | <b>Rs. 8000 per sample</b>  |
| 4. Data collection under liquid nitrogen         | <b>Rs. 10000 per sample</b> |
| 5. Structure solution                            | <b>Rs. 6000 per sample</b>  |

### Note:

1. Above charges are **exclusive** of GST and Education Cess if any as per government of India rule.
2. **GST, as per government of India rule (at present 18.00% of the total bill amount) is payable along with the analysis charge.**
3. Submit separate application form for each crystal.
4. Kindly send the analysis charges including GST in the form of **Demand Draft** in favour of **THE DIRECTOR, NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL, Payable at SURATHKAL** along with the sample and request form.



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## Crystal Submission Form

User Details

Date:

Name of the Student		<b>Billing Address:</b> ..... ..... ..... ..... .....
Name of the Guide		
Department		
Institute/University/College /Industry		
Tel. No./Mobile No.		
e-mail		

### Crystal Information

Sample Code:.....

Colour:.....

mp:..... °C

Solvent of Crystallization:.....

<b>Stability</b>	( ) Stable	( ) Air Sensitive	( ) Moisture Sensitive
Other Techniques Used for Characterization	( ) IR	( ) NMR	
	( ) Mass Spectrum	( ) Elemental Analysis	

**Structural formula and tentative molecular structure** (Indicate the desired atom-labelling scheme as well):

Signature of the Student

Signature of the HOD/Research Supervisor

.....  
**For Office Use Only**

**Payment Details:**

DD No.:.....

Bank :.....

Amount:.....

Date and Time of data collection:.....

Final R-factor:.....

**Coordinator's Signature**

**Date:**

**Time:**

Sign of operator:.....

Remarks.....