Research facilities and high end equipments in P.G Department of Chemistry

Name of Instrument and Make: Double beam UV-Vis Spectrophotometer (Systronics-AU 2701)

Cost (in Rs.): 4,50,000/- (approximately)

Photograph:

Specifications & Use:

Double beam UV-Vis Spectrophotometer (Systronics-AU 2701)

To measure and compare the absorbance of different solutions in UV-VIS region

To measure and compare transmittance and concentration of different solutions in UV-VIS region

Name of Instrument and Make: Flame Photometer (Systronics)

Cost (in Rs.): 58,000/- (Approximately)

Photograph: 

Specifications & Use:

Flame Photometer (Systronics)

Flame photometry is analytical technique which provides information about the composition and concentration of elements in a sample.

Name of Instrument and Make: Muffle Furnance (Metrex)

Cost (in Rs.): 58,000/- (Approximately)

Photograph: 

Specifications & Use:

A muffle furnace is used for the isolation of materials from the fuel and the products of combustion, involving gases and flying ash.

Name of Instrument and Make: Weighing Balance (A&D Company)

Cost (in Rs.): 32,000/- (Approximately)

Photograph:

Specifications & Use: Weighing Balance (A&D Company)

Weighing balance is used to measure weight and mass of the chemicals.

Name of Instrument and Make: Polarimeter (Popular Trader)

Cost (in Rs.): 30,000/- (Approximately)

Photograph: 

Specifications & Use: Polarimeter (Popular Trader)

Polarimeter is used to determine optical activity of the compound by determining its optical rotation

Name of Instrument and Make: Digital Melting Point apparatus (Popular Trader)

Cost (in Rs.): 19,000/- (approximately)

Photograph:

Specifications & Use:

Digital Melting Point apparatus (Popular Trader)

To measure and compare the melting point and purity of the compounds.

Name of Instrument and Make: Magnetic Stirrer (Moxcare)

Cost (in Rs.): 86,000/- (approximately)

Photograph:

Specifications & Use: Magnetic Stirrer (Moxcare)

A magnetic stirrer is used in chemistry to stir small volumes.

Name of Instrument and Make: Fume Hood (ACCO)

Cost (in Rs.): 60,000/- (approximately)

Photograph: 

Specifications & Use: Fume Hood (ACCO)

Fume hoods protects laboratory users from exposure to hazardous materials. It provides safe, enclosed work area for chemical manipulations and provide critical ventilation.

Name of Instrument and Make: UV-Visible Spectrophotometer (Shimadzu)

Cost (in Rs.):2,12,450 /- (approximately)

Photograph: 

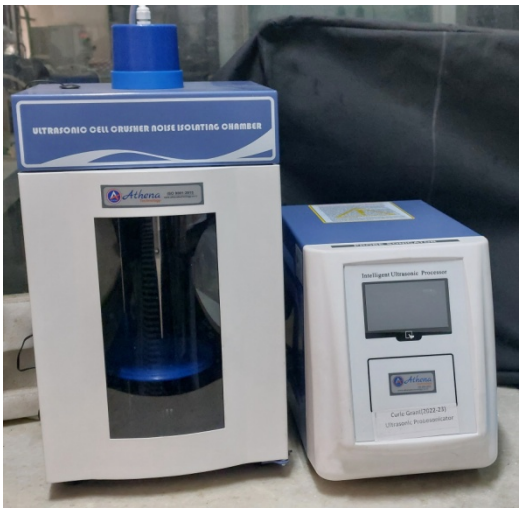
Specifications & Use:
UV-Visible Spectrophotometer (Shimadzu)

To measure and compare the absorbance of different solutions in UV-VIS region
To measure and compare transmittance and concentration of different solutions in UV-VIS region

Name of Instrument and Make: Ultrasonic Cell Crusher Noise Isolating Chamber (Athena Technology)

Cost (in Rs.): 1,49,950/- (approximately)

Photograph:



Specifications & Use: Ultrasonic Cell Crusher Noise Isolating Chamber (Athena Technology)

It is widely used in the synthesis of nano-particles and nanocomposites.

Name of Instrument and Make: Optical Microscope (Rescholar)

Cost (in Rs.): 2,53,700/- (approximately)

Photograph:

Specifications & Use: Optical Microscope (Rescholar)

Optical microscope is essential tool used in magnifying and examining small scale structures.

Name of Instrument and Make: Microprocessor based pH meter (Systronics)

Cost (in Rs.): 85,000/- (approximately)

Photograph:

Specifications & Use: Microprocessor based pH meter (Systronics)

It is used to determine pH (acidity and alkalinity) of the compounds.

Seed Money Details

Chemistry Department

2023-24

Name of the Principal Investigator/ Co-Investigator (if applicable)	***Department of the Principal Investigator/ Co-Investigator***	***Name of the Funding Agency***	***Type (Government/Non-Government)***	***Funds provided (INR in lakhs)***	***Month and Year of receiving the grant***	***Duration of the Project***	***Name of the project***
Ms. Tanksinderpalkabal Singh/ Barjinder Kaur, M.Sc Chemistry Semester I, Roll Number:224953 and Arshdeep Kaur, M.Sc Chemistry Semester I, Roll Number: 224954	*PG. Department of Chemistry*	*KMV*	*Non-Government*	*1,10,000/-*	*March,2023*	*2 years*	Sterculia gum based magnetic hydrogel matrix for adsorptive removal of dyes from aqueous solutions
Dr. Narinderjit Kaur (PI), Ms. Aastha Palta (Co-PI), Ms. Mehak (Co-PI), *Student Co-PIs*	*PG. Department of Chemistry*	*KMV*	*Non-Government*	*1,10,000/-*	*March,2023*	*2 years*	Green Synthesis of Carbon Dots from Citrus Peels and its Application in Sensing

Shruti Kalia, Simran Jaswal, Janvi Thakur, Anchal Saroch							
Dr. Swati Awasthi/ Sakshi, M.Sc. Chemistry Sem 1,Roll Number: 224967 And Kritika M.Sc. Chemistry Sem 1, Roll Number: 224963	*PG. Department of Chemistry*	*KMV*	*Non-Government*	*1,10,000 /-*	*March,2023*	*2 years*	Synthesis, Characterization and Applications of imidazolium based ionic liquids