



T.K.M. COLLEGE OF ARTS AND SCIENCE

T.K.M. College of Arts and Science, established in 1965 by Late Janab Thangal Kunju Musaliar, is an acclaimed citadel of learning in the city of Kollam. Re-accredited by NAAC in 2013 with an 'A' Grade, which bears testimony to its potential for excellence, the institution today commands an unparalleled prestige in the academic community.

We are proud to announce that the T.K.M. College of Arts and Science begins a service oriented Research Consultancy Service (TKMCAS-RCS) with the help of the research facilities funded by DST-FIST. We are happy to provide the major instrumentation facility in our institution for the enhancement of academic as well as industrial research. The consultancy service aims to serve the students/researchers/ other academic communities with the most advanced research instrumentation tools, which were unattainable to them, due to the lack of costly instruments and heavy analysis cost. This service further aims to nurture potential collaboration among educational institutions, research centres, R&D labs and industries.

Our Mission
 Inspiring **T**hought
 Imparting **K**nowledge
 Impacting **M**indset

OUR SERVICES

- ❖ The sample analysis form can be downloaded from the website tkmcas.ac.in. For the analysis, please submit the duly filled application form in duplicate, in the college office. Any number of samples can be analyzed by providing a single application form for a particular analysis. If the number of samples in an application is above ten, 50% discount will be given for the remaining samples.
- ❖ The charges given for analysis are inclusive of the cost of consumables required. The applicant has to pay the service charges, which are levied by the State Government. The results will be provided via email or by post (Applicant should provide a self addressed envelope with sufficient postage fee stamps).
- ❖ A discount of 25% of the analysis charges has been offered for the sister institutions from T.K.M. Group.
- ❖ A reduction of 50% of the analysis charges will be given for the internal samples.

GENERAL INSTRUCTIONS

- ❖ Corrosive, poisonous and hazardous samples should be indicated in the application.
- ❖ Sample will be analyzed as is provided and the analyst will not perform sample preparations like mixing of compound, incubation, dilution etc.
- ❖ Samples for XRD: For routine qualitative analysis, supply three to five grams of finely ground and dried sample powders.

The payment is accepted only through direct payment at the college office/ Demand Draft. DD should be drawn in favor of 'The Principal, T.K.M.C.A.S., Kollam' Payable at 'State Bank of India, Karicode'.



X-RAY DIFFRACTION

X-Ray Powder Diffractometer (XRD) is one of the most powerful and established techniques for material structural analysis, capable of providing information about the structure of a material at the atomic level. It is a high-tech, non-destructive technique for analyzing a wide range of materials, including metals, minerals, polymers, catalysts, plastics, biological materials, pharmaceuticals, thin-film coatings, ceramics, crystals and semiconductors. XRD is the most wanted tool for industry and research institutes, especially for material investigation, characterization and quality control.

Analysis	Charges in Rs.		
	Industries	Govt. R & D	Research Scholars
PXRD	1500	750	250
Slow Scan	2500	1250	550

For more information please log on to www.tkmcas.ac.in



FOURIER TRANSFORM INFRARED SPECTROSCOPY

Fourier Transform Infrared Spectroscopy-Attenuated Total Reflection (FTIR-ATR), is a versatile and powerful technique for structural characterization of organic and inorganic molecules in solids, liquids and gaseous forms. It is a powerful tool for identifying types of chemical bonds in a molecule by producing an infrared absorption spectrum that is like a molecular fingerprint. Infrared spectrum is useful in identifying the functional groups like -OH, -CN, -CO, -CH, -NH₂, etc. It can be used for both qualitative and quantitative studies.

Charges in Rs.		
Industries	Govt. R & D	Research Scholars
750	500	125



UV-VIS-NIR SPECTROSCOPY

UV-Vis-NIR Spectrophotometry is a method to measure how much a chemical substance absorbs light, by measuring the intensity of light as a beam passes through the sample. The optical absorption by samples in the ultraviolet, visible and near- infrared regions are measured with this instrument. This instrument is used for absorption and transmittance measurement of solution and solid samples. The Integrating Sphere (ISR) attachment provides diffused reflectance spectra of solid samples, such as powders, papers and cloths, even up to 1400 nm.

Analysis	Charges in Rs.		
	Industries	Govt. R & D	Research Scholars
Solutions	750	500	125
Solids	900	600	200



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(Re-accredited by NAAC with 'A' Grade)



Research Consultancy Services

Supported by



Department of Science and Technology (DST)
 Fund for Improvement of Science and Technology Infrastructure (FIST)
 Government of India



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