

Chromatography Unit

Introduction

The Unit of Chromatography offers a variety of scientific and technical services related to the quantitative determination of mixture constituents, qualitative control (e.g. reaction yields), separation of highly concentrated samples, selective isolation of sample components from complex matrices, isolation of metabolites and by-products of chemical and biological reactions, sample purification, etc

In addition, it offers a variety of support services such as the preparation of standard solutions, sample drying and lyophilization, etc.

Facilities & Infrastructure

The Unit is equipped with:

1. Agilent 1200 series LC system with UV-DAD detector.



2. Shimadzu LC system (able to operate in analytical, semi-preparative and preparative mode) with UV-DAD detector, autosampler and fraction collector.



3. Fast Protein Liquid Chromatography apparatus (Akta Purifier) with UV and UV/ pH / conductivity detectors and fraction collector.



4. 5-digit Analytical balance KERN ABT 220-5DM.



5. Lyophilization unit Christ Alpha 1-2 LD plus.



6. Turbo molecular pump PT 50 Oerlicon Turbovac.



7. PCs running various software for the control and operation of scientific equipment and data processing.

Staff & Contact Information

A Scientific Committee, made up of staff personnel of the University of Ioannina is responsible for the Chromatography Unit. Information can be obtained from Prof. V. Tsikaris or Dr. D.L. Giokas (Unit Operator).

Postal Address

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Representative Publications

1. Kyriakou E, Primikyri A, Charisiadis P, Katsoura M, Gerothanassis IP, Stamatis H, Tzakos AG. Unexpected enzyme-catalyzed regioselective acylation of flavonoid aglycones and rapid product screening. *Org Biomol Chem*. 2012 Mar 7;10(9):1739-42. Epub 2012 Jan 20.
2. Primikyri, A., et al., Tzakos A, Gerothanassis I. (2012) Fine-Tuning the Diffusion Dimension of -OH Groups for the Application of High Resolution DOSY NMR in Mixture Analysis of Organic Compounds, *Tetrahedron*, in press.
3. Vasilopoulou CG, Kontogianni VG, Linardaki ZI, Iatrou G, Lamari FN, Nerantzaki AA, Gerothanassis IP, Tzakos AG, Margarity M. Phytochemical composition of "mountain tea" from *Sideritis clandestina* subsp. *clandestina* and evaluation of its behavioral and oxidant/antioxidant effects on adult mice. *Eur J Nutr*. 2011 Dec 28.