

Abstract

The newest of these sciences, metabolomics, combines analytical biochemistry to evaluate the metabolic complement with sophisticated informatics, bioinformatics, and statistics. Because the chemistry of metabolites is variable, several analytical techniques must be used for their extraction, separation, detection, and quantification. The technologies have significantly advanced in the last ten years, enabling the simultaneous study of thousands of chemicals. However, this has brought about the current bottleneck of chemicals. However, the goal of this article is to outline the difficulties that metabolomics researchers are currently facing and provide the readers some solutions.

Keywords:

Introduction

Metabolomics is a relatively new field of study that combines analytical biochemistry with sophisticated informatics, bioinformatics, and statistics. The goal of metabolomics is to identify and quantify all the small molecules (metabolites) present in a biological system. This is a challenging task because there are thousands of metabolites in a single sample, and they can be present in very low concentrations. However, the technologies have significantly advanced in the last ten years, enabling the simultaneous study of thousands of chemicals. However, this has brought about the current bottleneck of chemicals. The goal of this article is to outline the difficulties that metabolomics researchers are currently facing and provide the readers some solutions.

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