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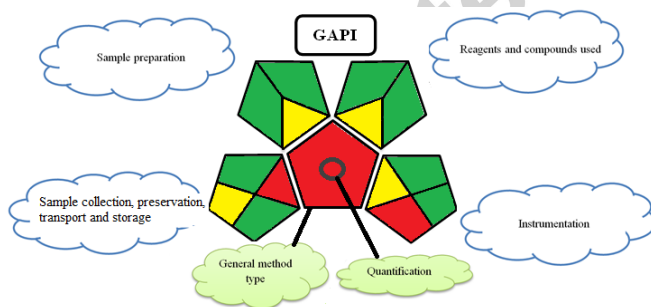
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## Abstract

A new means for assessing analytical protocols relating to green analytical chemistry attributes has been developed. The new tool, called GAPI (Green Analytical Procedure Index), evaluates the green character of an entire analytical methodology, from sample collection to final determination, and was created using such tools as the National Environmental Methods Index (NEMI) or Analytical Eco-Scale to provide not only general but also qualitative information. In GAPI, a specific symbol with five pentagrams can be used to evaluate and quantify the environmental impact involved in each step of an analytical methodology, mainly from green through yellow to red depicting low, medium to high impact, respectively. The proposed tool was used to evaluate analytical procedures applied in the determination of biogenic amines in wine samples, and polycyclic aromatic hydrocarbon determination by EPA methods. GAPI tool not only provides an immediately perceptible perspective to the user/reader but also offers exhaustive information on evaluated procedures.

Graphical abstract:



**Keywords:** green analytical chemistry, NEMI, Eco-Scale, GAPI

## 1. Introduction

There is no doubt analytical laboratories have an essential role to play in environmental protection through monitoring of pollutants in air, water or soil. On the other hand, analytical activities involve the use of many reagents and solvents, thus generating toxic residues. For

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