



## ► Christina Michali

M.Sc. Analytical Chemist at University of Athens

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### Education

**B.Sc. in Chemistry (2006-2011)**, University of Athens, Grade: 6.97/10

**M.Sc. in Chemical Analysis & Quality Control (2011-2014)**, University of Athens, Grade (excellent)

### Research Topic:

**Master thesis: *Ionization study and chromatographic separation of aminoglycosides with HILIC-MS/MS***

**Description:** Aminoglycosides are a group of antibiotics that belong to the oligosaccharides and they are widely used against bacteria and parasites in the production of pork, chicken, beef, milk and eggs. They can be highly toxic and cause allergies or problems in hematopoiesis. For these reasons their use must be under control, so the European Union community has established maximum residue limits (MRL).

The ionization study for eight aminoglycosides (spectinomycin (SPEC), streptomycin (STR), dihydrostreptomycin (DSTR), amikacin (AMC), kanamycin (KN), gentamycin (GEN), apramycin (APRA), neomycin (NEO) ) was performed by optimizing the settings of the mass spectrometer, while infusing standards solutions of each analyte into various mobile phases and in positive polarity.

A chromatographic method was also developed for the simultaneous determination of the analytes. The determination was performed with hydrophilic interaction liquid chromatography (HILIC) – tandem with mass spectrometry (MS/MS), as aminoglycosides are polar compounds, they are not adequately retained on reversed-phase columns and the use of ion-pairing agents is necessary. However, they cause ion suppression and potential contamination to instruments, so HILIC is the most suitable method for the determination of aminoglycosides.

### Research Interests

1. Environmental analytical chemistry
2. Experience in the field of mass spectrometry and analytical chemistry of pollutants and contaminants in environmental chemistry
3. Collaboration with the Public Power Corporation of Greece (PPC)

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## Conferences Presentations

1. Christina S. Michali, Marilena E. Dasenaki, Nikolaos S. Thomaidis, “*Ionization study and chromatographic separation of aminoglycosides with HILIC-MS/MS*”, **IMA** Instrumental Methods of Analysis- Modern Trends and Applications, 16-19 September 2013, Thessaloniki

## Professional Affiliations

Association of Greek Chemists, 2011-Present  
Hellenic Mass Spectrometry Society, 2012-Present

## Contact information

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