



## ▶ Ioannis Pasiyas

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### Education

**B.Sc. in Chemistry (2000-2005)**, University of Athens, Grade: 6.3/10.

**M.Sc. in Chemical Analysis & Quality Control (2005-2008)**, University of Athens, Grade 9.3/10.

**PhD in Analytical Chemistry (2008-2012)**, University of Athens, Grade Excellent.

### Research Topic:

- Identification of chemical and microbiological indices for seafood freshness and their implementation for the establishment of freshly-frozen claim.

The objectives of this study are to determine the chemical and microbial changes in different fish species during storage and to evaluate the efficiency of chemical indices for freshness evaluation, comparing different storage conditions. For this reason, different LC methods were developed and validated including HPLC-UV, HILIC-HPLC-UV and LC-MS/MS for the determination of nucleotides, and biogenic amines in different fish species.

### Research Interests

1. 2008-present: (Research Associate of the Laboratory of Analytical Chemistry, Department of Chemistry, University of Athens, Greece). Development and method validation, uncertainty calculations, speciation of elements in the environment and food, sample preparation techniques for chromatographic analysis – preconcentration and derivatization techniques, determination of organic compounds by different chromatographic techniques (HPLC, GC-FID, LC-MS/MS e.t.c), determination of trace elements by various spectrometric techniques (ETAAS, FAAS, AES, ICP-MS, e.t.c), estimation of dietary exposure in residues, food and Environmental Analysis.
2. 2012 –2015: (Research & Development of new Enterprises). Identification of chemical and microbiological indices for seafood freshness and their implementation for the establishment of freshly-frozen claim (GSRT, 2012-2015).
3. 2009: (National Food Control Agency, EFET). Evaluation of the dietary exposure to heavy metals of Greek population from the consumption of contaminated food from industrial areas - Relation to contaminated irrigation water.
4. 2006-2008: (AKMON, General Secretariat of Research and Technology). Development of the laboratory infrastructure for providing advanced services of food control and environmental management to enterprises.
5. 2005-2007: (Pythagoras II- Ministry of Education). Investigation of toxicity and biodegradation in the marine environment of organic compounds used as booster biocides in antifouling paints)

## Publications in journals

1. AK Psoma, IN Pasiar, AA Bletsou, NS Thomaidis "Development and Validation of a Multi-residue Method for the Determination of Pesticides in Chios Mastic Gum by QuEChERS and Liquid Chromatography–Tandem Mass Spectrometry" *Food Analytical Methods*, 2015, 8(3), 624-634, DOI 10.1007/s12161-014-9930-7.
2. Ioannis N Pasiar, Konstantinos G Koukoulakis, Georgios I Bartzis, Athanasia I Mologousi Evangelos B Bakeas "Determination of As in particulate matter using Se as an internal standard by multi-element electrothermal atomic absorption spectrometry" *Analytical Methods*, Names, 2014, 6, 7848-7853, DOI 10.1039/C4AY01506A
3. N.I. Rousis, I.N. Pasiar, N.S. Thomaidis "Attenuation of interferences in collision/reaction cell inductively coupled plasma mass spectrometry, using helium and hydrogen as cell gases – application to multi-element analysis of mastic gum" *Analytical Methods*, 2014, 6, 5899-5908, DOI 10.1039/C4AY00452C
4. Konstantinos Barkonikos, Ioannis N. Pasiar, Nikolaos S. Thomaidis "Evaluation of internal standardization for the determination of semivolatiles analytes in difficult matrices by simultaneous multielement atomic absorption spectrometry" *Talanta*, 2014, 129, 165-170, DOI 10.1016/j.talanta.2014.05.030.
5. E.G. Farmaki, N.S. Thomaidis, I.N. Pasiar, C. Baulard, L. Papaharisis, C.E. Efstathiou "Environmental impact of intensive aquaculture: Investigation on the accumulation of metals and nutrients in marine sediments of Greece" *Science of the Total Environment*, 2014, 485–486, 554–562, DOI 10.1016/j.scitotenv.2014.03.125
6. K.G. Raptopoulou, I.N. Pasiar, N.S. Thomaidis, and Ch. Proestos "Study of the migration phenomena of specific metals in canned tomato paste before and after opening. Validation of a new quality indicator for opened cans." *Food and Chemical Toxicology*, 2014, 69, 25-31, DOI 10.1016/j.fct.2014.03.023.
7. I. N. Pasiar, C. Pappa, V. Katsarou, N. S. Thomaidis, E. A. Piperaki "Alternative approaches to correct interferences in the determination of boron in shrimps by electrothermal atomic absorption spectrometry" *Spectrochimica Acta, Part B*, 2014, 92, 23-28, DOI: 10.1016/j.sab.2013.11.005.
8. A.K. Psoma, I.N. Pasiar, N.I. Rousis, K.A. Barkonikos and N.S. Thomaidis "Development, validation and accreditation of a method for the determination of Pb, Cd, Cu and As in fish and fish feed samples" *Food Chemistry*, 2014, 151, 72–78, DOI: 10.1016/j.foodchem.2013.11.045.
9. I.N. Pasiar, N.S. Thomaidis, E.B. Bakeas, and E.A. Piperaki "Application of Zirconium-Iridium Permanent Modifier for the Simultaneous Determination of Lead, Cadmium, Arsenic and Nickel in Atmospheric Particulate Matter by Multi-element Electrothermal Atomic Absorption Spectrometry" *Environmental Monitoring and Assessment*, 2013, 2013, 185, 6867-6879, DOI: 10.1007/s10661-013-3071-0.
10. I.N. Pasiar, N.S. Thomaidis and E.A. Piperaki "Determination of total arsenic, total inorganic arsenic and inorganic arsenic species in rice and rice flour by Electrothermal Atomic Absorption Spectrometry" *Microchemical Journal*, 2013, 108, 1-6, DOI: 10.1016/j.microc.2012.11.008.
11. M. G. Kostakis, I. N. Pasiar, V. L. Borova, A. K. Panara, N. S. Thomaidis "Comparative study of two different speciation methods for the determination of hexavalent chromium in water samples using electrothermal atomic absorption spectrometry" *Current Analytical Chemistry*, 2013, 9, 288-295, DOI: 10.2174/1573411011309020013/
12. V. P. Kalantzis, N. I. Rousis, I. N. Pasiar, N. S. Thomaidis and E. A. Piperaki "Evaluation of different modifiers for the determination of arsenic in leachate samples from sanitary landfills by electrothermal atomic absorption spectrometry" *Analytical Letters*, 2012, 45, 592-602, DOI: 10.1080/00032719.2011.649457.
13. Chr. G. Kirkillis, I. N. Pasiar, S. Miniadis-Meimaroglou, N. S. Thomaidis and I. Zabetakis "Quantification of trace elements in carrots, onions and potatoes cultivated in Asopos region, Central Greece", *Analytical Letters*, 2012, 45, 551-562, DOI: 10.1080/00032719.2011.649460.
14. I. N. Pasiar, V. Papageorgiou, N. S. Thomaidis and Ch. Proestos "Development and validation of an ETAAS method for the determination of tin in canned tomato paste samples" *Food Analytical Methods*, 2012, 5, 835-840, DOI: 10.1007/s12161-011-9320-3.
15. I.N. Pasiar, E.G. Farmaki, N.S. Thomaidis and E.A. Piperaki "Elemental content and total antioxidant activity

of *Salvia Fruticosa*” *Food Analytical Methods*, 2010, 3, 195-204, DOI: 10.1007/s12161-009-9122-z.

## Chapters in books

1. Alexandros G. Asimakopoulos, Ioannis N. Pasiias, Kurunthachalam Kannan, and Nikolaos S. Thomaidis Human Exposure to Chemicals in Personal Care Products and Health Implications In book: *The Handbook of Environmental Chemistry*, Chapter: Human Exposure to Chemicals in Personal Care Products and Health Implications, Publisher: Springer Berlin Heidelberg, pp.1-23, DOI: 10.1007/698\_2014.
2. I.N. Pasiias, A.K. Psoma, N.I Rousis, N.S. Thomaidis “Inorganic Arsenic in Foodstuffs: Health Effects and Analytical Methods for Its Determination ” by Marissa Jane Olson in *Arsenic: Detection, Management Strategies and Health Effects*, Nova Science Publishers Inc., ISBN 978-1-63321-054-7, New York, 2014
3. Charalampos Proestos, Ioannis Pasiias, Vassiliki Papageorgiou, Konstantinos Barmperis, Nikolaos Thomaidis. Trace Elements: Effect on Tomato Plant and on Human Health After Consumption of Tomato Fruit and Tomato Fruit Food Products in *Food Science Research Summaries 3*, Nova Science Publishers Inc., New York, 2014.
4. C. Christophoridis, I. Pasiias, E. Mitsika, and S. Veloutsou “Fluorides in different types of aquatic systems and their correlation with metals and metalloids” (chapter 13) in *Heavy Metals in Water, Presence, Removal and Safety*, RSC, ISBN 978-1-84973-885-9, 2014.
5. Charalampos Proestos, Ioannis N. Pasiias, Vassiliki Papageorgiou, Konstantinos Barmperis and Nikolaos S. Thomaidis “Trace elements: effect on tomato plant and on human health after consumption of tomato fruit and tomato fruit food products” (chapter 16) in “Tomatoes: Cultivation, Varieties and Nutrition” by Tadahisa Higashide (Ed.), Nova Science Publishers Inc., New York, 2013, 275-288.

## Conferences Presentations

1. Kalomoira G. Raptopoulou, Ioannis N. Pasiias, Nikolaos S. Thomaidis and Charalampos Proestos Development and validation of an official method for the determination of heavy metals and micronutrients in canned tomato paste by Simultaneous Electrothermal Atomic Absorption Spectroscopy, 8th International Conference of Analysis Modern Trends and Applications, Thessaloniki, Greece 2013.
2. Ioannis N. Pasiias, Vassiliki Papageorgiou, Nikolaos S. Thomaidis and Charalampos Proestos. Determination of Tin in Canned Tomato Paste Samples. 7th International Conference of Analysis Modern Trends and Applications, Chania, Greece 2011.
3. Pasiias N. I., Thomaidis S.N., Piperaki A.E. Comparative study of two electrothermal atomic absorption spectrometric techniques for the determination of boron in shrimps samples. 7th Aegean Analytical Chemistry Days, Mytilene 2010.
4. Kalantzis V, Rousis N., Pasiias N. I., Thomaidis S.N., Piperaki A.E. Evaluation of different modifiers for the determination of arsenic in drainage samples from solid waste dump areas by electrothermal atomic absorption spectrometry. 7th Aegean Analytical Chemistry Days, Mytilene 2010.
5. Kostakis G. M., Borova L. V, Panara K. A., Pasiias N. I., Thomaidis S.N. Comparison of two different speciation methods for the determination of hexavalent chromium in water samples by ETAAS. 7th Aegean Analytical Chemistry Days, Mytilene 2010.
6. Kirkillis G. C., Pasiias N. I., Thomaidis S.N., S. Miniadou S., Zabetakis I. Tracing the link between pollution and the food production in the Asopos area, Greece. 7th Aegean Analytical Chemistry Days, Mytilene 2010.
7. Pasiias N. I., Pappa C., Katsarou V., Thomaidis S.N., Piperaki A.E. Comparative study of chemical modifiers and internal standards for the determination of boron by graphite atomic absorption spectrometry. 6th International Conference of Analysis Modern Trends and Applications, Athens 2009.
8. Pasiias N. I., Thomaidis S.N., Piperaki A.E Determination of 17 metals and metalloids by ICP-MS and total antioxidant activity by microwave-assisted extraction and DPPH scavenging method of *Salvia Fruticosa*. 6th Aegean Analytical Chemistry Days, Denizli 2008.
9. Pasiias I., Kapridaki C., Tsirakis C., Barkonikos C., Economakis C., Piperaki E. Determination of metal content and investigation of the antioxidant activity of the herbal *Salvia Fruticosa* from Crete island. Proceedings of the 5th Aegean Analytical Chemistry Days, Thessaloniki 2006.
10. Baulard C., Papaharisis L., Foteinos D., Thomaidis S. N., Kastritis A., Barkonikos C., Pasiias I. Environmental

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impacts of intensive aquaculture: preliminary investigation on the accumulation of metals and nutrients in marine sediments. 3rd International Congress on Aquaculture, Fisheries Technology and Environmental Management, 2006.

### Awards and Honors

1. Scholarship for postgraduate studies "Chemical Analysis-Quality Control", 2006.
2. Reviewer of international journals: Global NEST Journal, Desalination and Water Treatment, Central European Journal of Chemistry, Analytical Letters, Food Analytical Methods.

### Professional Affiliations

Association of Greek Chemists, 2005-Present

Member of the Trace Analysis and Mass Spectrometry Group, 2005-Present

### Contact information

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