

CURRICULUM VITAE

Fotios N. Tsopelas

Chemical Engineer- Pharmacist
Ph.D. in Analytical Chemistry
Elected Lecturer in “Analytical Chemistry” in NTUA

ATHENS, OCTOBER 2012

I. GENERAL INFORMATION AND PROFESSIONAL ACTIVITIES

PERSONAL INFORMATION

NAME: **Fotios**

SURNAME: **Tsopelas**

ADDRESS: 60 G. Zografou Street, 157 72 Zografos, Athens, Greece.

TELEPHONE NUMBERS: +30 210 7776916, +30 6937 587999 (mobile)

DATE OF BIRTH: 12-2-1976

PLACE OF BIRTH: Athens

MARITAL STATUS: Unmarried

MILITARY OBLIGATIONS: Completed.

E-Mail Address: ftsop@central.ntua.gr

EDUCATION

- 2009-2010 **Post-Doctoral Research in Pharmaceutical Analysis:**
“Application of biomimetic liquid chromatography to the assessment of permeability through cell membranes and protein binding of drugs and biologically active selenium species”.
Laboratory of Pharmaceutical Chemistry, University of Athens
Laboratory of Inorganic and Analytical Chemistry, National Technical University of Athens.
- 2007 **Ph.D. in Analytical Chemistry.**
Ph.D. thesis: *“Separation and determination of organometallic compounds in the environment- Speciation Analysis”.*
Laboratory of Inorganic and Analytical Chemistry, School of Chemical Engineering N.T.U.A.
(Supervisor: Prof. Maria Ochsenkühn-Petropoulou).
- 2004 **BSc in Pharmacy**, University of Athens.
(Degree: 6.52, Very Good).
- 1999 **Diploma in Chemical Engineering**, National Technical University of Athens (Diploma Degree: 8.29, Very Good).

LANGUAGES

English: Very good knowledge (Certificate of Proficiency in English, University of Cambridge, June 2002).

ACADEMIC AWARDS-SCHOLARSHIPS

- Elected as lecturer in the field of “Analytical Chemistry” of National Technical University of Athens (7/2011).
- Postdoctoral fellowship by Hellenic State Scholarships Foundation (2009-2010).
- Scholarship by the “Alexandros S. Onasis” foundation for the Ph.D. thesis (2001-2004).
- Award from Greek Technical Chamber for the achievement of the second highest degree of undergraduate students of all Schools of Chemical Engineering in Greece in the courses of academic year 1998-99.
- 8 awards by “Thomaidio” foundation of N.T.U.A. for the publications in international journals and proceedings of international conferences.

PROFESSIONAL AND TEACHING ACTIVITIES

- 2007-Now Post-doctoral research associate of laboratories of Pharmaceutical Chemistry (University of Athens) and Inorganic & Analytical Chemistry (National Technical University of Athens).
- 2008-2012 Visiting professor in the Departments of (i) “Food Technology” and (ii) “Public Health” of the Technological Educational Institute of Athens and “Chemistry and Materials Science” of Technological Educational Institute of Piraeus.
- 2006-2012 Teacher in seminars and institutes of vocational training.
- 2000- 2010 Participation in Greek and International research projects of the National Technical University of Athens (utilization of byproducts, monitoring of atmospheric pollution of Attica, chemical analysis of waters, quality control of products, etc).
- 2000-2007 Ph.D. candidate in the Laboratory of Inorganic and Analytical Chemistry.

EXPERIENCE IN ANALYTICAL TECHNIQUES

- Liquid Chromatography
- ICP-OES
- Electroanalytical Techniques (Stripping Voltammetry, Polarography, Cyclic Voltammetry).
- UV-Vis
- AAS.

II. TEACHING EXPERIENCE

A. IN UNIVERSITIES AND TECHNOLOGICAL EDUCATIONAL INSTITUTES

1. 3/2012-6/2012: *School of Chemical Engineering, National Technical University of Athens*

Course:

- Analytical Chemistry (2nd semester)

2. 10/2008- 7/2012: Department of Public Health, Technological Educational Institute of Athens

Courses:

- Environmental Chemistry (1st semester)
- Environmental Hygiene (2nd semester)
- Environmental Engineering (5th semester)

3. 10/2012- 2/2012: 10/2008- 7/2012: Department of Chemistry and Material Science, Technological Educational Institute of Piraeus

Course:

- Environmental Chemistry (1st semester)

4. 10/2009- 7/2011: Department of Food Technology, Technological Educational Institute of Athens

Course:

- Organic Chemistry (2nd semester)

TEACHING NOTES

1. F. Tsopelas, Notes for the theory of the course “Environmental Chemistry”, TEI of Athens, 2010.
2. F. Tsopelas, Th. Filippakopoulou, Notes for the laboratory of the course “Environmental Chemistry”, TEI of Athens, 2010.

3. F. Tsopelas, D. Gakis, "Polarography", Participation in the Edition "Laboratory Exercises in Instrumental Methods of Analysis", NTUA 2009.

DISSERTATION SUPERVISION

Supervision of five undergraduate Dissertations (TEI of Athens).

B. IN SEMINARS AND INSTITUTES OF VOCATIONAL TRAINING

1. IN INSTITUTES OF VOCATIONAL TRAINING (2006-2012)

Courses:

- General Chemistry
- Analytical Chemistry
- Pharmaceutical Technology
- Pharmacology
- Quality control of drugs (pharmaceutical analysis)

2. IN SEMINARS

Courses:

- Pharmacology and pharmacy equipment
- Hygiene

III. RESEARCH AND OTHER SCIENTIFIC ACTIVITIES

RESEARCH FIELDS OF INTEREST

- Electroanalysis
- Liquid Chromatography
- Speciation Analysis
- Environmental Analytical Chemistry
- Pharmaceutical Analysis

PUBLICATIONS IN INTERNATIONAL JOURNALS (PAPERS)

1. K.M. Ochsenkühn, M. Ochsenkühn-Petropoulou, F. Tsopelas, L. Mendrinos, “Different behavior of organotin compounds by anodic stripping voltammetry and their quantification after partial ion-exchange separation”, *Mikrochimica Acta*, 136 (2001) 129-135.
2. K.M. Ochsenkühn, M. Ochsenkühn-Petropoulou, F. Tsopelas, L. Mendrinos, “Separation of organotin compounds by ion-exchange chromatography and their determination by inverse voltammetry”, *Fresenius Journal of Analytical Chemistry* 369 (2001) 633-637.
3. M. Ochsenkühn-Petropoulou, F. Tsopelas, “Speciation analysis of selenium using voltammetric techniques”, *Analytica Chimica Acta* 467 (2002) 167-178.
4. M. Ochsenkühn-Petropoulou, F. Tsopelas, “Separation of organoselenium compounds and their electrochemical detection”, *Analytical and Bioanalytical Chemistry* 379 (2004) 770-776.
5. F. Tsopelas, M. Ochsenkühn-Petropoulou, A. Tsantili-Kakoulidou, K.M. Ochsenkühn, “Study of the lipophilicity of selenium species”, *Analytical and Bioanalytical Chemistry* 381 (2005) 420-426.
6. F. Tsopelas, M. Ochsenkühn-Petropoulou, I. Mergias, L. Tsakanika, “Comparison of ultra-violet and inductively coupled plasma- atomic emission spectrometry for the on-line quantification of selenium species after their separation by reversed-phase liquid chromatography”, *Analytica Chimica Acta* 539 (2005) 327-333.
7. F. Tsopelas, A. Tsantili-Kakoulidou, M. Ochsenkühn-Petropoulou, “Investigation of the chromatographic behaviour of some selenium species- Comparison with their octanol-water partitioning”, *Talanta* 73 (2007) 127-133.
8. F. Tsopelas, L.A. Tsakanika, M. Ochsenkühn-Petropoulou, “Extraction of arsenic species from airborne particulate filters- Application to an industrial area of Greece”, *Microchemical Journal* 89 (2008) 165-170.
9. S. Gikas, F. Tsopelas, C. Giaginis, J. Dimitrakopoulos, T. Livadara, H. Archontaki, A. Tsantili- Kakoulidou, “Chromatographic behavior of zwitterionic enalapril- Exploring the conditions for lipophilicity assessment”, *Journal of Pharmaceutical and Biomedical Analysis* 48 (2008) 739-743.

10. M. Ochsenkühn-Petropoulou, T. Lyberopoulou, R. Argyropoulou, F. Tsopeas, K.M. Ochsenkühn, "Chemical and structural characterization of airborne particulate matter in an industrial and an urban area in Greece", *Fresenius Environmental Bulletin* 18 (2009) 2210-2218.
11. F. Tsopeas, M. Ochsenkühn- Petropoulou, A. Tsantili- Kakoulidou, "Void volume markers in reversed-phase and biomimetic liquid chromatography", *Journal of Chromatography A* 1117 (2010) 2847-2854.
12. F. Tsopeas, A. Tsantili- Kakoulidou, M. Ochsenkühn- Petropoulou, "Biomimetic chromatographic analysis of selenium species: Application for the estimation of their pharmacokinetic properties", *Analytical and Bioanalytical Chemistry* 397 (2010) 2171-2180.
13. F. Tsopeas, M. Ochsenkühn- Petropoulou, N. Zikos, I. Andreadou, A. Tsantili- Kakoulidou, "Electrochemical study of some non-steroid anti-inflammatory drugs: Solvent effect and anti-oxidant activity", *Journal of Solid State Electrochemistry* 15 (2011) 1099-1108.
14. F. Tsopeas, M. Ochsenkühn-Petropoulou, A. Tsantili- Kakoulidou, "Exploring the elution mechanism of selenium species on different chromatographic conditions", *Journal of Separation Science* 34 (2011) 376-384.
15. M. Paraskevas, F. Tsopeas, M. Ochsenkühn- Petropoulou, "Determination of Pt and Pd in particles emitted from automobile exhaust catalysts using ion-exchange matrix separation and voltammetric detection", *Microchimica Acta* 176 (2012) 235-242.

PRESENTATIONS IN INTERNATIONAL CONFERENCES

A. Oral Presentations (Speaker's name is underlined)

1. M. Ochsenkühn-Petropoulou, F. Tsopeas, K.M. Ochsenkühn, "Different behavior of organotin compounds by anodic stripping voltammetry and their quantification after partial ion-exchange separation", IMA 1999, 18-22 September 1999, Chalkidiki, Greece.
2. K.M. Ochsenkühn, M. Ochsenkühn-Petropoulou, F. Tsopeas, L. Mendrinou, "Separation of organotin compounds by ion-exchange chromatography and their determination by inverse voltammetry", Euroanalysis XI, Portugal 3-9 September 2000.
3. M. Ochsenkühn-Petropoulou, F. Tsopeas, "Speciation analysis of selenium using voltammetric techniques", 2nd International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2001, 5-8 September 2001, Ioannina, Greece.
4. M. Ochsenkühn-Petropoulou, F. Tsopeas, "Separation of organoselenium compounds and their electrochemical detection", 3rd International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2003, 23-27 September 2003, Thessaloniki, Greece.
5. F. Tsopeas, M. Ochsenkühn-Petropoulou, A. Tsantili-Kakoulidou, K.M. Ochsenkühn, "Study of the lipophilicity of selenium species", 3rd International

Conference on Trace Element Speciation in Biomedical, Nutritional and Environmental Sciences, 10-13 May 2004, Munich, Germany.

6. M. Ochsenkühn-Petropoulou, F. Tsopelas, K.M. Ochsenkühn, L. Tsakanika, "Separation and determination of arsenic species in inorganic and organic matrices", 2nd Asian International Conference on Ecotoxicology and Environmental Safety, SECOTOX 2004, 26-29 September 2004, Songkla, Thailand.
7. M. Ochsenkühn-Petropoulou, F. Tsopelas, I. Mergias, "Liquid chromatographic and voltammetric techniques in selenium speciation", 4th International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2005, 2-6 October 2005, Iraklion, Crete, Greece.
8. F. Tsopelas, A. Tsantili-Kakoulidou, M. Ochsenkühn-Petropoulou, "Contribution to the investigation of the lipophilicity of selenium species", 7th International Conference on Environmental and Biological Aspects-Group Organometallics "ICEBAMO", 10-12 October 2006, Heraklion, Crete, Greece.
9. M. Ochsenkühn-Petropoulou, T. Lyberopoulou, L. Tsakanika, P. Razos, R. Argyropoulou, F. Tsopelas, M. Paraskevas, K.M. Ochsenkühn, "Analytical Techniques applied to the characterization and source identification of airborne particulates in an industrial and urban area in the Attica basin, Greece", 6th Aegean Analytical Chemistry Days, 9-12 October 2008, Denizli, Turkey.
10. F. Tsopelas, A. Tsantili- Kakoulidou, M. Ochsenkühn-Petropoulou, "Estimation of biological properties of selenium species using biomimetic liquid chromatography", 6th International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2009, 4-8 October 2009, Athens, Greece.
11. F. Tsopelas, A. Tsantili- Kakoulidou, M. Ochsenkühn-Petropoulou, "A comparative analysis of the retention behaviour of selenium species on reversed-phase and biomimetic chromatographic columns", 7th AACD (Aegean Analytical Chemistry Days) Conference, 29 September-3 October 2010, Lesvos, Greece.
12. F. Tsopelas, L. Tsakanika, A. Tsantili- Kakoulidou, M. Ochsenkühn-Petropoulou, "Alternative methods for the measurement of the lipophilicity of biologically active selenium species: From octanol-water partitioning to retention on biomimetic chromatography", 7th International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2011, 18-22 September 2011, Mediterranean Agronomic Institute of Chania, Crete, Greece.
13. M. Ochsenkühn-Petropoulou, F. Tsopelas, "Speciation of selenium traces using voltammetric techniques- General approach and applications", 8th AACD (Aegean Analytical Chemistry Days) Conference, 16-20 September 2012, Izmir, Turkey.

B. Poster Presentations

14. K.M. Ochsenkühn, F. Tsopelas, L. Tsakanika, P. Razos, A. Christides, M. Ochsenkühn-Petropoulou, "Speciation of selenium and arsenic in airborne particulate matter and distribution of other toxic metals in PM₁₀/PM_{2.5} in an industrial area in Greece", 6th International Symposium on speciation of elements in biological, environmental and toxicological sciences", 21-25 June 2006, Bialowieza, Poland.

15. K.M. Ochsenkühn, F. Tsopeles, M. Ochsenkühn-Petropoulou, "Arsenic speciation in aerosol samples from an industrial area in Greece", 6th Aegean Analytical Chemistry Days, 9-12 October 2008, Denizli, Turkey.
16. F. Tsopeles, M. Ochsenkühn-Petropoulou, A. Tsantili-Kakoulidou, "Void volume markers in liquid chromatography", 6th International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2009, 4-8 October 2009, Athens, Greece.
17. A. Detsi, F. Tsopeles, K.C. Prousis, C. Kontogiorgis, D. Hadjipavlou- Litina, Th. Lyberopoulou, K. Mpalta, M. Ochsenkühn-Petropoulou, "Antioxidant properties of novel Quinolinone-3- carboxamides investigated by spectrophotometric and electrochemical techniques", 6th International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2009, 4-8 October 2009, Athens, Greece.
18. D. Vrakas, C. Giaginis, F. Tsopeles, N. Malaki, V. Demopoulos, A. Tsantili-Kakoulidou, "The potential of IAM chromatographic indices to simulate in vitro and in vivo permeability data", 18th EuroQSAR- Discovery Informatics and Drug Design, 19-24 September 2010, Rhodes, Greece.
19. O. Serifi, F. Tsopeles, P. Kefalas, A. Detsi, M. Ochsenkühn-Petropoulou, "Electrochemical behaviour of a series of aminoacids, aminoalcohols and biogenic amines: Correlation with their antioxidant activity", 16th European Conference on Analytical Chemistry, Euroanalysis 2011, "Challenges in Modern Analytical Chemistry", 11-15 September 2011, Belgrade, Serbia.
20. O. Serifi, F. Tsopeles, M. Ochsenkühn-Petropoulou, P. Kefalas, A. Detsi, "Electrochemical behavior of antioxidant chalcone analogues", 7th International Conference on Instrumental Methods of Analysis- Modern Trends and Applications, IMA 2011, 18-22 September 2011, Mediterranean Agronomic Institute of Chania, Crete, Greece.

PUBLICATIONS IN NATIONAL JOURNALS

1. F. Tsopeles, A. Tsantili- Kakoulidou, M. Ochsenkühn- Petropoulou, "Environmental distribution, biological role and toxicity of selenium species", *Pharmakeftiki* 23 (2010) 16-32.

OTHER SCIENTIFIC ACTIVITIES

► Reviewer in the scientific journals:

1. "*Electroanalysis*"
2. "*Analytical Letters*"
3. "*Current Pharmaceutical Analysis*"
4. "*International Journal of Environmental Analytical Chemistry*"
5. "*Atmospheric Chemistry and Physics*"
6. "*International Journal of Food Sciences and Nutrition*"
7. "*Journal of the Serbian Chemical Society*"

- ▶ Member of the American Chemical Society.

- ▶ Participation in the experts' meeting as a member of an international cooperation team of recognized scientists of the "SEAS" project of European Union, "Feasibility studies for speciated CRMs for arsenic and selenium", for the presentation and discussion of the results obtained by intercomparison exercises for the development of certified materials for different species of As and Se in environmental samples and food (Istituto Superiore di Sanita, 6-7/2/2003, Rome, Italy).