

## NIKOS PASADAKIS

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Mineral Resources Engineering Department,  
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### EDUCATION

- 1985 Chemical Engineering Diploma, (MSc) in "Chemical Technology of Oil and Natural Gas", Department of Organic Chemical Technology, Technical University Of Lviv (former USSR)
- 1991 Ph.D. in Physical Chemistry, Department of Organic Chemical Technology, Technical University of Lviv (former USSR)

### EMPLOYMENT

1991. Research Fellow, PVT and Core Analysis Lab., Mineral Resources Engineering Department (MRED), Technical University of Crete (TUC)
2001. Lecturer, MRED, TUC
2005. Assistant Professor, MRED, TUC

### RESEARCH INTERESTS

- **Instrumental analysis** and characterization of fossil fuels (petroleum, natural gas, carbon, etc.).
- **Chemometric** applications in oil analysis. Modelling of the relationships between chemical composition and physicochemical properties of petroleum and its fractions.
- **Organic geochemistry** studies in exploration, production and exploitation of fossil fuels
- Identification and characterization of **organic pollutants** from the production and

use of fossil fuels in the environment.

## TEACHING EXPERIENCE

"Fossil Fuels"

"Organic Geochemistry"

"Unit Operations"

"Reservoir Engineering"

2002-present Supervision of 13 undergraduate diploma and of 7 graduate master thesis

## List of publications in peer-reviewed journals

1. N. Pasadakis, G. Romanos, V. Perdikatsis, A.E. Foscolos. "Production of activated carbons using Greek lignites by physical and chemical activation methods. A comparative study", accepted for publication in "Energy Sources, Part A", 2010.
2. Andreas A. Kardamakis, Nikos Pasadakis. "Autoregressive modeling of near-IR spectra and MLR to predict RON values of gasolines", **Fuel**, (2009) 158-161.
3. C. Papanicolaou, N. Pasadakis, D. Dimou, S. Kalaitzidis, S. Papazisimou, A.E. Foscolos. "Adsorption of NO, SO<sub>2</sub> and light hydrocarbons on activated Greek brown coals", **International Journal of Coal Geology**, 77 (2009) 401-408.
4. P. Kiomourtzi, N. Pasadakis, A. Zelilidis. "Source Rock and Depositional Environment Study of Three Hydrocarbon Fields in Prinos – Kavala Basin (North Aegean)", **Open Petroleum Engineering Journal**, 1 (2008) 16-29.
5. Nikos Pasadakis, Evangelos, Gidaracos, Georgia Kanellopoulou, Nikos Spanoudakis: "Identifying Sources of Oil Spills in a Refinery by Gas Chromatography and Chemometrics. A case study", **Environmental Forensics**, 9 (2008) 33-39.
6. Andreas A. Kardamakis, Athanasios Mouchtaris, Nikos Pasadakis: "Linear Predictive Spectral Coding and Independent Component Analysis in identifying gasoline constituents using Infrared spectroscopy", **Chemometrics and Intelligent Laboratory Systems**, 89-1 (2007) 51-58.

7. Nikos Pasadakis, Andreas Kardamakis, Popi Sfakianaki. "Classification of Gasoline Grades Using Compositional Data and Expectation-Maximization Algorithm", **Energy & Fuels**, 21 (2007) 3406-3409.
8. M. Nikolopoulou, N. Pasadakis, N. Kalogerakis: "Enhanced bioremediation of crude oil utilizing lipophilic fertilizers", **Desalination**, 211 (2007) 286-295.
9. N. Pasadakis, N. Xekoukoulotakis: "Gas Chromatographic Analysis of Crude Oils with Thermal Extraction Sampling", 2006, **Petroleum Science and Technology**, 25 (2007) 1135-1142.
10. Nikos Pasadakis, Andreas A. Kardamakis: "Identifying constituents in commercial gasoline using Fourier transform-infrared spectroscopy and independent component analysis", **Analytica Chimica Acta**, 578 (2006) 250-255.
11. Vassilis Gaganis, Nikos Pasadakis: "Characterization of Oil Spills in the Environment Using Parallel Factor Multiway Analysis" **Analytica Chimica Acta**, 573-574 (2006) 328-332.
12. Marta Ruiz, Nikos Pasadakis, Nicolas Kalogerakis: "Bioremediation and toxicity determination of natural seawater polluted with weathered crude oil by salt-tolerant consortia in a SBR", **Marine Pollution Bulletin**, 52 (2006) 1490-1493.
13. N. Pasadakis, V. Gaganis, Ch. Foteinopoulos: "Octane number prediction for gasoline blends", **Fuel Processing Technology**, 87, (2006) 505-509.
14. N. Pasadakis, S. Sourligas, Ch. Foteinopoulos: "Prediction of the distillation profile and cold properties of diesel fuels using mid-IR spectroscopy and neural networks", **Fuel**, 85, (2006) 1131-1137.
15. Nikos Pasadakis, Mark Obermajer, Kirk G. Osadetz: "Definition and characterization of petroleum compositional families in Williston Basin, North America, using principal component analysis", **Organic Geochemistry**, 35, (2004) 453-468.
16. D. Vamvuka, N. Pasadakis, E. Kastanaki: "Kinetic modelling of coal/agricultural by-products blends", **Energy & Fuels**, 17(3), (2003) 549-558.
17. M. Obermajer, K.G. Osadetz, and N. Pasadakis: "Refining compositional affinity of Williston Basin family C oils using multivariate statistical analysis of

- saturate biomarkers”, **Summary of Investigations 2003, Saskatchewan Geological Survey**, Sask. Industry and Resources Misc. Rep. 2003-4.1, A-9.
18. K.G. Osadetz, N. Pasadakis and M. Obermajer: “Definition and characterization of petroleum compositional families, using principal component analysis of gasoline and saturate fraction compositional ratios”, **Summary of Investigations 2002. Saskatchewan Geological Survey**, Saskatchewan Industry and Resources Misc. Report, v. 2002-4.1, 3-14.
  19. N. Pasadakis: “Determination of the continuity in oil reservoirs using principal component analysis of biomarker data”, **Petroleum Science and Technology**, 20(9&10), (2002) 1087-1096.
  20. N. Pasadakis, N. Varotsis, N. Kallithrakas: “The influence of pressure on the asphaltenes content and composition in oils”, **Petroleum Science and Technology**, 19(9&10), (2001) 1219-1227.
  21. T. J. Broad, N. Varotsis, N. Pasadakis: “The Compositional Characterization of Gas Condensate Fluids – A Review Featuring the Impact of the Analysis Data Quality on the Accuracy of Equation of State Based PVT Predictions”, **SPE paper 68231**, 2001.
  22. N. Pasadakis, C. Yiokari, N. Varotsis, C. Vayenas: “Characterization of hydrotreating catalysts using the principal components analysis”, **Applied Catalysis A: General** 207 (2001) 333-341.
  23. N. Pasadakis, V. Gaganis, N. Varotsis: “Accurate determination of aromatic groups in heavy petroleum fractions using HPLC-UV-DAD”, **Fuel** 80 (2001), 147-153.
  24. N. Pasadakis, N. Varotsis: “A Novel Approach for the quantitation of the Hydrocarbon Groups in Heavy Petroleum Fractions by HPLC-RI analysis”, **Energy and Fuels**, 14-6 (2000) 1184-1187.
  25. N. Pasadakis, E. Chamilaki, N. Varotsis: “Method measures commingled production pipeline components”, **Oil and Gas Journal**, Jan. 3 (2000) 46-49.
  26. N. Pasadakis, N. Varotsis: “Optimization of the HPLC separation of aromatic groups in petroleum fractions”, **Fuel** 79 (2000) 1455-1459.
  27. Varotsis, N. Pasadakis, V. Gaganis, “A Novel Approach for the Characterization of Aromatics in Petroleum Fractions Using HPLC-UV-DAD and Evolving Factor Analysis”, **Fuel**, 77, (1998) 1495-1502.

28. N. Varotsis, N. Pasadakis: "Determination of Commingled Crude Oil Streams by HPLC with UV and IR detection", **Journal of Liquid Chromatography and Related Technologies**, 21(5), (1998) 657-667.
29. N. Varotsis, N. Pasadakis: "An Analytical Method for Rapid Monitoring of the Degree of Hydrogenation of Recycled Lubricating Motor Oils", **Journal of Industrial and Engineering Chemistry Research**, 36, (1997) 5516-5519.
30. N. Varotsis, N. Pasadakis: "Rapid Quantitative Determination of Aromatic Groups in Lubricant Oils Using Gel Permeation Chromatography", **Journal of Industrial and Engineering Chemistry Research**, 36, (1997) 5516-5519.
31. N. Varotsis, N. Pasadakis: "Calibration Prerequisite for accurate PVT Measurements", **Oil & Gas Journal**, Jan. (1996) 93-96.
32. N. Varotsis, N. Pasadakis: "An Integrated Method for the Gas Chromatographic Analysis of Natural Gases and Liquid Petroleum Mixtures", **Chimika Chronika**, New Series, 25, (1995) 287-300.

#### **List of papers in International Conferences with reviewers**

33. Papanikolaou C., Triantafyllou G., Pasadakis N., Foscolos A.E. "Adsorption of phenols from olive oil mill wastewater as well as and from a simulated city wastewater liquid on activated Greek lignites", Bulletin of the **Geological Society of Greece**, 2010, Proceedings of the **12th International Congress**, Patras, May 2010, p. 2294-2308.
34. P. Kiomourtzi, A. Zelilidis, N. Pasadakis: "Organic geochemical study of the Kalirachi formation (Prinos-Kavala basin)", **3<sup>rd</sup> International Conference, Advances in Mineral Resources Management and Environmental Geotechnology**, September 2009, Athens, Greece, p. 231-236.
35. C. Papanikolaou, N. Pasadakis, G. Triantafyllou, A. Foscolos: "The use of Greek low rank coals for mitigating environmental problems", **3<sup>rd</sup> International Conference, Advances in Mineral Resources Management and Environmental Geotechnology**, September 2009, Athens, Greece, p. 323-332.
36. Papanicolaou, V.C. Kelessidis, N. Pasadakis, V. Gekas, C. Galanakis, G. Triantafyllou, A. Foscolos: "Benefits from simultaneous exploitation of lignite

- for industrial and environmental uses as well as feedstock for power generation: The case of Elassona coal basin, Thessaly Greece”, **19<sup>th</sup> Industrial Minerals International Congress and Exhibition**, 30 March-2 April 2008, Athens, Greece.
37. Kiomourtzi P., Pasadakis N. and Zelilidis A.: “Geochemical characterization of satellite hydrocarbon formations in Prinos-Kavala basin (North Greece)”, **11<sup>th</sup> International Conference of the Geological Society of Greece**, Athens 24-26 May 2007, p. 839-850.
  38. V. C. Kelessidis, C. Tsamantaki, N. Pasadakis, E. Repouskou, E. Hamilaki. “Permeability, porosity and surface characteristics of filter cakes from water-bentonite suspensions”, **6<sup>th</sup> International Conference on Advances in Fluid Mechanics**, Skiathos, Greece 8-10 May 2006, published in “Computational Methods in Multiphase Flow, IV”, WIT Transactions on Engineering Sciences, Vol. 56, 173-182, A.A. Mammoli, and C.A. Brebbia Editors, WIT Press, 2007.
  39. C. Galanakis, D. Dimou, N. Pasadakis, K. Papanicolaou, V. Gekas. “Adsorption of olive mill wastewater on raw and activated Greek lignite”, **International Conference Protection and Restoration VIII**, 3-7 July 2006, Chania, Greece.
  40. M. Nikolopoulou, N. Pasadakis, N. Kalogerakis. “Modelling biostimulation processes in oil spill clean-up”, **International Conference Protection and Restoration VIII**, 3-7 July 2006, Chania, Greece.
  41. G. Kritikakis, N. Economou, H. Hamdan, N. Spanoudakis, A. Antiniou, A. Vafidis, M. Bano, N. Pasadakis, J.C. Gourry. “Contribution of the geophysical methods in delineating soil contamination”, **2<sup>nd</sup> International Conference, Advances in Mineral Resources Management and Environmental Geotechnology**, September 2006, Chania, Greece, p. 129-134.
  42. V. Perdikatsis, E. Kizlari, N. Pasadakis, D. Pentari. “Soil pollution by pesticides in the greenhouses in the prefecture of Chania”, **2<sup>nd</sup> International Conference, Advances in Mineral Resources Management and Environmental Geotechnology**, September 2006, Chania, Greece, p. 717-722.
  43. Nikos Pasadakis and Andreas Kardamakis: “Classification of gasoline samples using variable reduction and expectation-maximization methods”, **International Conference of Computational Methods in Sciences and Engineering**,

- ICCMSE 2006.** Published in “Lecture Series on Computer and Computational Sciences, Brill Academic Publishers, vol. 7 (2006) p. 435-437.
44. Nikos Pasadakis, Vassilis Gaganis: “Characterization of oil spills in the environment using parallel factor (PARAFAC) multiway analysis” **International Conference, Instrumental Methods of analysis, Modern trends and applications**, 2-6 Oct. 2005, Iraklion, Crete, Greece, p. 210.
  45. D. Marinakis, N. Varotsis, N. Pasadakis, J. Yang, B. Tohidi, C. Perissoratis: “Thermodynamic study of unsaturated hydrates formed from gas mixture in marine sediments”, **VIII International Conference on gas in marine**, Vigo, Spain, 5-10 Sept. 2005.
  46. M. Ruiz, N. Pasadakis, N. Kalogerakis. “Bioremediation and toxicity determination of natural seawater polluted with weathered crude oil by salt-tolerant consortia in a SBR”, **3<sup>rd</sup> European Bioremediation Conference**, Chania, Greece, 4-7 July 2005.
  47. Vassilis Gaganis, Nikos Pasadakis and Charalambos Foteinopoulos. “Octane number prediction and optimization for gasoline blends using artificial neural networks.” **1<sup>st</sup> International Conference on Experiments/Process/System Modelling/Simulation/Optimization, IC-EpsMsO**, Athens, 6-9 July 2005.
  48. M. Ruiz, M. Nikolopoulou, A. Coz, N. Pasadakis, N. Kalogerakis: “Toxicity determination of natural seawater polluted with weathered crude oil after its enhanced biodegradation using microbial stimulants”, **12<sup>th</sup> International Symposium on Toxicity assessment**, Skiathos, Greece, 12-17 June 2005, p. 52.
  49. S. Sfakiotakis, N. Pasadakis, N. Varotsis and H.P. Hjermsstad: “Qualitative and quantitative study of asphaltenes precipitation during gas injection project”, **13<sup>th</sup> European Symposium on Improved Oil Recovery**, Budapest, Hungary, 25-27 April 2005.
  50. G. Kanellopoulou, N. Pasadakis, E. Gidaracos: “Fingerprinting of oil-spills in a petroleum refinery using Gel Permeation Chromatography (GPC) and Principal Component Analysis”, **1<sup>st</sup> International Conference, Advances in Mineral Resources Management and Environmental Geotechnology**, June 2004, Chania, Greece, p. 589-594.
  51. M. Nikolopoulou, N. Pasadakis, E. Repouskou, N. Kallithrakas-Kontos, N. Kalogerakis: Characterization of polyhire as a support material for air biofilters.

**VII International Conference Protection and Restoration of the Environment**, Mykonos, Greece, 28 June-1 July 2004.

52. V. Gaganis, N. Pasadakis, P. Smaragdis, N. Varotsis: "Deconvolution of overlapping HPLC peaks of aromatic hydrocarbons using Independent component analysis" **Advances in Chromatography and Electrophoresis-Conferentia Chemometrica**, Budapest, 27-29 Oct. 2003, Abstract Book L21.
53. N. Pasadakis, V. Gaganis, P. Smaragdis: "Independent Component analysis (ICA) in the deconvolution of overlapping HPLC aromatic peaks of oil" **3<sup>rd</sup> International Conference, Instrumental Methods of Analysis. Modern Trends and Applications**, Thessaloniki, Greece, 23-27 Sep. 2003, p. 96-99.
54. V. Tomos, K. Anyfantaki, N. Pasadakis, N. Varotsis: Determination of polycyclic aromatic hydrocarbons in oil contaminated soil. **Fifth International Conference on Environmental Pollution**. Thessaloniki, Greece, August 2000, p. 269-274.
55. O. Tzoraki, A. Voutetaki, P. Ignatiadis, N. Pasadakis, V. Gekas: "Phenolic compounds in olive milling effluents: An environmental problem or a raw material?" **Fifth International Conference on Environmental Pollution**, Thessaloniki, Greece, August 2000, p. 178-185.
56. N. Pasadakis, V. Gaganis, N. Varotsis: "An improved method for the separation of aromatic groups in heavy petroleum fractions by HPLC analysis", **International Conference on Instrumental Methods of Analysis - Modern Trends and Applications**, Chalkidiki, Greece, 1999, p. 472-476

**List of Presentations in International Conferences with reviewers (Posters)**

57. Nikos Pasadakis, Emmanuel Manoutsoglou, Avraam Zelilidis, Maowen Li. "Source rock geochemical study of shallow biogenic methane accumulations in Crete (Greece) island, **24<sup>nd</sup> International meeting on Organic Geochemistry**, Bremen Germany, 6-11 Sept. 2009, p. 466.
58. P. Kiomoutzi, N. Pasadakis, E. Manoutsoglou, A. Zelilidis, K. Papakonstantinou. "Source organic matter and depositional environment in Prinos oil basin (Greece)", **International Geological Congress**, Oslo, 6-14 August 2008.



59. N. Pasadakis, V. Dagounaki, A. Zelilidis, G. Papatheodorou, E. Manoutsoglou. "Organic matter of neogene sediments in central Crete (Greece), as source of biogenic methane", **International Geological Congress**, Oslo, 6-14 August 2008.
60. M. Nikolopoulou, N. Pasadakis, N. Kalogerakis: "Effects of nutrient additives on microbial degradation of oil spills", **IX International Conference Protection and Restoration of the environment**, 29 June-3 July 2008, Kefallonia, Greece..
61. N. Pasadakis, E. Manoutsoglou: "Origin and maturity of the organic matter in the mud breccia from "Anaximander" mud volcanoes, Eastern Mediterranean", **25<sup>th</sup> IAS meeting of Sedimentology**, September 2007, Patras, Greece.
62. A. Pafitis, N. Pasadakis, I. Kopanakis and E. Katsivela: "Distributions and health risks of polycyclic aromatic hydrocarbons (PAHs) in atmospheric aerosols of the city of Chania (Greece)", **European Aerosol Conference 2007**, Salzburg, Austria, 10-14 September 2007.
63. C. Papanicolaou, N. Pasadakis, D. Dimou, S. Kalaitzidis, S. Papazissimou, A.E. Foscolos: "Adsorption of NO<sub>x</sub>, SO<sub>2</sub>, methane, ethane, propane and propylene on activated Greek coals", **The Joint Meeting of CSCOP, TSOP & ICCP**, Unconventional Petroleum Systems & Advances in Organic Petrology, Organic & Inorganic Geochemistry, Victoria, BC, Canada, 19-25 August 2007.
64. M. Ruiz, N. Kalogerakis, N. Pasadakis: "Biodegradation optimization and toxicity determination of natural seawater polluted with weathered crude oil in an aerobic bioreactor" **International Conference on Environmental, Industrial and Applied Microbiology**, Badajoz, Spain, March 15-18 2005, Abstract Book 664.
65. N. Pasadakis, K.G. Osadetz, M. Obermajer, A. Kardamakis: "Identifying diagnostic compositional features in gasoline range hydrocarbons using genetic algorithm optimization with Procrustes criterion" **22<sup>nd</sup> International meeting on Organic Geochemistry**, Seville, Spain, 12-16 Sept. 2005, p. 495-496.
66. Georgia Kanellopoulou, Evaggelos Gidarakos, Nikos Pasadakis: "Source identification of underground fuel spills in a petroleum refinery using fingerprinting techniques and chemometric analysis. A case study", **9<sup>th</sup>**

- International Conference on soil-water systems**, Bordeaux, France, 3-7 Oct. 2005.
67. M. Karasavova, N. Pasadakis and N. Kalogerakis: "Degradation of crude oil by salt-tolerant microbial consortia", **2<sup>nd</sup> Joint annual Meeting of the German Chemical Society**, Aachen, Oct 6-8, 2004, Abstract Book, 174.
  68. M. Ruiz, M. Karasavova, N. Pasadakis and N. Kalogerakis: "Bioremediation of natural seawater polluted with weathered crude oil by salt tolerant consortia in an aerobic reactor", **2<sup>nd</sup> Joint annual Meeting of the German Chemical Society**, Aachen, Oct 6-8, 2004, Abstract Book, 194.
  69. W. Przystas, N. Pasadakis and N. Kalogerakis: "Bioremediation of petroleum contaminated sands", **International Conference on Bioremediation of Soil and Groundwater**, Krakow, Poland, Sep. 5-8, 2004, Abstract Book, 86.
  70. N. Pasadakis, K. Osadetz and M. Obermajer: "Application of Canonical Correlation Analysis in studies of Geochemical compositions of crude oils from Williston basin", **ICE 2004**, May 31-June 4 2004, Calgary, Alberta, Canada. Book of Abstracts P1.
  71. M. Obermajer, K.G. Osadetz, N. Pasadakis and L.R. Snowdon: "Typing oils using multivariate statistical analysis: an example from the Canadian Williston Basin", **21<sup>st</sup> International Meeting in Organic Geochemistry**, Krakow, Poland, September 8-12, 2003, Book of Abstracts, part 2, 215-216
  72. N. Pasadakis, M. Obermajer and K. Osadetz. "Definition and characterization of compositional oil families using Principal Component Analysis", **Emerging Concepts in Organic Petrology and Geochemistry**, Aug. 31-Sep. 4, 2002, Banff, Alberta, Canada. Abstract Book, 23.
  73. N. Pasadakis, Y. Pavlovski, B. Cergeev: "Enthalpy of vaporization of silicon-organic compounds", **Vestnic Polytechnika** 1 (1992) p.62-66.
  74. N. Pasadakis, Y. Van-Chin-Cian, E. Fedorova: "Thermochemistry of superoxide organic compounds", **Vestnic Polytechnika** 4 (1991) p.38-42.
  75. Y. Pavlovski, N. Pasadakis: "Enthalpy of formation and vaporization of ketone superoxides", **International Symposium of Calorimetry and Chemical Thermodynamics**. MSY Publications, Moscow, USSR, 1991, p.111.

76. N. Pasadakis, Y. Van-Chin-Cian, F. Antonovskii, E. Fedorova. "Thermochemistry of Superoxide Organic Compounds", VI Pan-Soviet Conference of Thermochemistry, BU Publications, Minsk, USSR, 1990, p. 21.
77. N. Pasadakis, E. Fedorova, Y. Van-Chin-Cian, B. Antonovskii. "Enthalpy of combustion of ketone peroxides" **IX Pan-Soviet Conference for Peroxide Compounds**, GU Publications, Gorki, USSR, 1990, p.38.

## RESEARCH AND DEVELOPMENT PROJECTS

### As Scientific Coordinator

- |           |  |
|-----------|--|
| 2010      | "Characterization of oil products of Motor Oil HELLAS, Corinth Refineries S.A., with chromatographic and spectroscopic methods for the needs of the European Regulation REACH 1907/2006" Funded by "Motor Oil HELLAS". |
| 2009      | "Characterization of oil products of the Hellenic Petroleum S.A. with and spectroscopic methods for the needs of the European Regulation REACH 1907/2006". Funded by the "Hellenic Petroleum S.A.".                    |
| 2009      | "Optimization of upgrading processes of used oils with catalytic hydrogenation" . Funded by "CYCLON Hellas".   |
| 2007      | "Evaluation of possible source rock in Greece using organic geochemistry methods" Basic Research 2007, Funded by Research Foundation of TUC (ELKE TUC)   |
| 2006-2008 | "Simulation of Epsilon oil reservoir using specialized software" PEP Eastern Macedonia 2000-2006, Funded by Greek General Secretariat for Research and Technology (GSRT) and "KAVALA OIL S.A."                         |
| 2006-2008 | "Evaluation of biogas from neogene formations in Central Crete", PEPER Crete 2000-2006, Funded by Greek General Secretariat for Research and Technology (GSRT) and Municipality of Arkalohori                          |
| 2004-2006 | "Evaluation and monitoring of oil spills in the subsurface of refineries using modern geophysical methods", Funded by Greek  |

	General Secretariat for Research and Technology (GSRT) "Competitiveness", "GEOTEK".
2003-2006	"Pilot study of lubricant oil extraction", Funded by Research Foundation of TUC (ELKE TUC)
2003-2006	"Characterization of oil spills in the Aspropirgos refinery, Athens", Funded by "Hellenic Petroleum S.A."
2002-2006	"Development of low cost adsorbent for gas cleaning using activated Greek lignites", Funded by Greek Institute of Geology and Mineral Exploration (IGME)

### **As Principal Researcher**

2001	"PVT study of petroleum fluids from exploration well "Epsilon-1" of Prinos basin, Greece". Funded by "KABALA OIL S.A."
1999-2001	"Biodegradation of organic pollutants in soils and groundwater". Funded by Greek General Secretariat for Research and Technology (GSRT) (Project PENED-98).
1999-2000	"Development and implementation of an optimization system for the production of lubricating oils in the "Motor Oil HELLAS" refinery". Funded by Greek General Secretariat for Research and Technology (GSRT) (Project PAVE-97).
1995-1998	"Increase the domestic capacity of the recycled waste oil". Funded by Greek General Secretariat for Research and Technology (GSRT) (Project EPET-II).
1998	"Geochemical study of Greek lignites. Origin determination using characteristic biomarkers", Funded by IGME.
1997	"Laboratory study of the chemical composition and formation conditions of asphaltenes in the North Prinos oil reservoir". (Funded by "North Aegean Petroleum Corporation". "PVT study of petroleum fluids from exploration well PN-2 of North Prinos reservoir". Funded by "North Aegean Petroleum Corporation".
1995	Experimental and theoretical study of PVT behavior of gas

- condensate mixtures from North Sea. Funded by Delft University of Technology, Holland.
- 1994 "PVT study of petroleum fluids from exploration well PN-2 of North Prinos reservoir". Funded by North Aegean Petroleum Corporation)
- 1994 "Special core analysis study of the exploration well PN-2 of North Prinos reservoir". Funded by "North Aegean Petroleum Corporation".
- 1994 Organic geochemical study of the oil from the exploration well PN-2 of North Prinos reservoir". Funded by "Wintershall AG", Kassel.
- 1993 Wettability study of oil reservoirs. Surface phenomena in oil-water-rock systems and their effect in oil production". Funded by Research Foundation of TUC (ELKE TUC)

#### **As Principal Researcher**

- 2002-2005 Exploration and Evaluation of the Eastern Mediterranean Sea Gas hydrates and the Associated Deep Biosphere, EC CONTRACT EVK3-Project CT-2002-00068. Funded by Framework Energy, Environment and Sustainable Development, EU.
- 2002-2004 Evaluation of the miscible gas injection in oil reservoirs by monitoring the asphaltenes concentration, Project NNE5/2001/250. Funded by Framework Energy, Environment and Sustainable Development, EU.
- 1999-2002 Hydrate Autoclave Coring Equipment System, Project EVK3-2000-00549. Funded by Sustainable Marine Ecosystems, EU.

#### ***Reviewer for the International Journals***

"Energy & Fuels", "Fuel", "Fuel Processing Technology", "Chemometrics and Intelligent Laboratory Systems", "Analytica Chimica Acta", "Analytical and Bioanalytical Chemistry", "Talanta", "Journal of Chromatography, A", "Chemical Engineering Communications", "Chemical Engineering and Processing", "Energy Sources, Part A"

#### **SCIENTIFIC & PROFESSIONAL MEMBERHIPS**

Professional Engineer, Chamber of Professional Engineers of Greece (TEE)

Member of the Scientific Affairs Committee of TEE for the Exploitation and Development of Energy Resources (2005)

Member of the Scientific Society of Mineral Wealth Technologists