Department of Chemical Engineering of UOWM

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| **Name and Surname :** | Tsanaktsidis Constantinos  | **C:\Users\Κώστας\Desktop\9.PNG** |
| **Specialization/Position::** | CHEMICAL, (Professor at the Department of Chemical Engineering of UOWM) |
| **Brief CV:** | Dr. Tsanaktsidis Constantinos is instructor at the School of Engineering of the University of Western Macedonia (UOWM). He is Professor at the Department of Chemical Engineering of UOWM He is chemical (University of ioannina,) and his research focuses on subjects with conformational and dynamic properties of bio-organic compounds in pollution control technology.

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| Receiving a PhD from the Department of Chemistry, Faculty of Sciences, University of Ioannina with distinction “Excellent”Thesis “Study degree of hydration, and conformational and dynamic properties of bio-organic compounds using eteronuclear NMR 14N and 31P”Note: The content of this thesis is to study changes in the degree of hydration of charged groups bioorganic compounds such as amino acids, acetyloaminoacids, phospholipids, nucleosides using NMR during their presence in aqueous solutions. |
| Postdoctoral studies at the University of Ioannina, Faculty of Sciences, Department of Biological Applications and Technologies, with the object “Topics of Moisturizing amino acids and nucleic acids and structural aspects of studies of biologically active substances. |

The areas of scientific interest are focused on: **Study of Bioorganic associations’ antipollution action** Concretely the behavior of bioorganic compounds that contain polar teams, (carboxylic, amino, phosphoric) which interact with water molecules is studied.This behavior was studied in the frames of doctoral thesis and the results of this research are proposed for application in antipollution technologies in sectors like humid fuels, detergent, humid hospital waste, so as to they are rendered friendlier to the environment at their use. For this purpose, several hydrophilic polymer have been selected to study (synthetically and naturally) eg, thermic polyaspartic anion (TPA), resin from *Pinus helepensis*, betaine, macromolecular organic compounds, organic solvents.The ability of these compounds to interact with water molecules was studied, in order to remove the humidity in products like fuels and improve their physicochemical attributes (**which constitutes the main field of application of inquiring process**), in order that at their combustion they cause less polluting charge and they give bigger energy output. In fuels the compound TRA, RESIN were used.Also the use of betaine in the detergents was studied, so that they will be friendlier to the environment after their use. The management of total organic charge of humid hospital waste was also studied so that they are not considered so dangerous for the environment.1. Ακρόαση
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| **Publications****2013-2018*****(up to 5)*** |  C. G. Tsanaktsidis, S. G. Christidis and E. P. Favvas, A Novel method for improving the physicochemical properties of diesel and jet fuel using polyaspartate polymer additives, FUEL, vol. 104, pp 155, 2013.Ετεροαναφορες-10[C.G. Tsanaktsidis](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [E. P. Favvas](http://www.sciencedirect.com/science/article/pii/S0378382013001471),[A. A. Scaltsoyiannes](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [S. G. Christidis](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [E.X. Katsidi](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [A. V. Scaltsoyiannes](http://www.sciencedirect.com/science/article/pii/S0378382013001471), Natural resins and their application in antifouling fuel technology: Part I: Improving the physicochemical properties of diesel fuel using natural resin polymer as a removable additive, Fuel Processing Technology, vol.114, p 135, 2013.Ετεροαναφορες-9[C.G. Tsanaktsidis](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [E. P. Favvas](http://www.sciencedirect.com/science/article/pii/S0378382013001471),[A. A. Scaltsoyiannes](http://www.sciencedirect.com/science/article/pii/S0378382013001471), G.T. Tzilantonis, A new fuel (D-BD-J) from the blending of conventional diesel, biodiesel and JP8, Fuel Processing Technology, vol.127, p. 66, 2014Ετεροαναφορες-1[C.G. Tsanaktsidis](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [E. P. Favvas](http://www.sciencedirect.com/science/article/pii/S0378382013001471), , [E.X. Katsidi](http://www.sciencedirect.com/science/article/pii/S0378382013001471), [S. G. Christidis](http://www.sciencedirect.com/science/article/pii/S0378382013001471), G.T. Tzilantonis [A. V. Scaltsoyiannes](http://www.sciencedirect.com/science/article/pii/S0378382013001471) ,Water removal from biodiesel/diesel blends and jet fuel by using natural resin as dehydration agent, The Canadian Journal of Chemical Engineering, Vol.93, p.1812, 2015.Ετεροαναφορες-4Evangelos P. Favvas, Constantinos G. Tsanaktsidis, Andreas A. Sapalidis, George T. Tzilantonis, Sergios K. Papageorgiou, Athanasios Ch. Mitropoulos, "Clinoptilolite: A natural zeolite material, structural characterization and performance evaluation on its dehydration properties of hydrocarbon-based fuels", Microp. Mesop. Mater. 2016, 225,p385-391.Ετεροαναφορες-17 |
| **Research Projects****2013-2018** ***(up to 5)*** | 1. PITHAGORAS ΙΙ- ENHANCE UNIVERSITY RESEARCH GROUPS, 1/5/2005- 31/5/2005. Title : “ Air pollution in urban or industrial areas with an emphasis on suspended particles. Application to the regions of Athens and Kozani “Partners : University of Western Macedonia.2.ERDF -EUROPEAN REGIONAL DEVELOPMENT FUND 1-6-2013 -31-12 2013Title :protection forest plant in Balkan Partners : TEI WEST. MACEDONIA- Aristotle university of Thessaloniki 3.THALES-ΙΙΙ, Thales – General Secretariat of Research and Technology (Ministry of National Education and Religious Affairs), 2011-2014.Τίτλος : **Production of Energy Carriers from Biomass by Products. Glycerol Reforming for the Production of Hydrogen, Hydrocarbons and Superior Alcohols.**Partners : University of Patras, University of Thessaly .  ITCHIID-CERTH, ΤΕΙ WESTERN MACEDONIA |