

## **CURRICULUM VITAE (May 2018)**

### **Dr. DIONYSIOS KOULOGLIOTIS**

**Work Address:** Department of Environmental Technology – Technological Educational Institute (T.E.I.) of Ionian Islands, M. Minotou-Giannopoulou, Panagoula, 29100, Zakynthos, Greece

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**Born** 7 March 1968 in Amalias, Ilias, GREECE

**Nationality:** Greek, **Marital Status:** Married, father of two children

**Military service:** 22/11/1999 – 22/5/2001

**Current position:** Professor – Department of Environmental Technology – T.E.I. of Ionian Islands, Neo Ktirio-Panagoula, 29100, Zakynthos, Greece  
Department Chairman from 30/08/2017 - today

**Previous positions:** a) Associate Professor – Technological Educational Institute (T.E.I.) of Ionian Islands, Zakynthos, Greece (10/2007-03/2013). In the period between March 2010 – August 2011 I served as Department Chairman.

b) High School Science Teacher, Greece (2003-2007)

c) Teaching fellow T.E.I. of Piraeus, Piraeus, Greece (2001-2009)

d) Contract Assistant Professor, Department of Biochemistry and Biotechnology - University of Thessaly, Larissa, Greece (2001-2003)

e) Postdoctoral researcher, Max-Volmer Institute for Biophysical Chemistry – Berlin Technical University, Berlin, Germany (03/2002-03/2003)

f) Postdoctoral researcher, Institute of Materials Science – NCSR “Demokritos”, Aghia Paraskevi Attikis, Greece (10/1998-9/1999)

g) Postdoctoral researcher, Department of Chemistry, University of Florence, Florence, Italy (9/1995-8/1998)

#### **University Studies and Diplomas**

**Yale University, Department of Chemistry, New Haven, CT, U.S.A.**

M. Sc. Biophysical Chemistry, May 1992

Ph. D. Biophysical Chemistry, December 1995

**Ph. D. Thesis Title:** “Location and Magnetic Properties of the Redox Cofactors in Photosystem II”

**National and Kapodistrian University of Athens, Athens, GREECE**

B. Sc. in Physics, October 1989

B. A. in Economics , May 2013

#### **Current Research Interests**

a) Air pollution with emphasis indoors

b) Food chemistry and technology - Physicochemical properties of foods and essential oils via spectroscopic techniques

c) Educational research with emphasis in science learning and teaching

d) Biophysical chemistry – Structural biology (Photosynthesis of higher plants, protein structure in solution)

#### **Languages**

Greek: Native speaker

English: Excellent knowledge (Level C2 - Certificate of Proficiency, University of Cambridge)

French: Excellent knowledge (Level C2 - Sorbonne II)

German: Fair knowledge (Level B1 - Zertifikat-Goethe Institut)

Italian: Good knowledge (only oral)

### **Awards/Honors**

1. Marie Curie postdoctoral research fellowship (TMR – Return Grant, 10/1999-09/1999, NCSR “Demokritos”-Aghia Paraskevi Attikis-Greece)
2. Marie Curie postdoctoral research fellowship (TMR – Category B30, 09/1996-08/1998, University of Florence-Department of Chemistry-Florence-Italy)
3. Fulbrigh Scholar, Ph. D. research fellowship (09/1990 – 07/1995, Yale University-Department of Chemistry-New Haven, CT – USA).

### **Funded Projects (as a faculty member of TEI of Ionian Islands)**

Participation in 16 co-financed programs in the period between 2010-2018.

Below is a short list of these projects.

1. “Upgrading the quality of local wines of the Ionian Islands via the use of endogenous yeast strains” – Research Programme funded by the Prefecture of the Ionian Islands with MIS 5006342 (ESPA 2014-2020) – Principal Investigator (21/07/2017 – 31/12/2019). Budget: 202.000 €
2. “Chemistry is All Around Network” Lifelong Learning Programme – Comenius Subprogramme, Networks Action. Principal Investigator for Greece (12/2011 – 11/2014). Budget: 47.270 €
3. “Chemistry is All Around Us” Lifelong Learning Programme – Leonardo da Vinci Subprogramme, Principal Investigator for Greece (03/2010 – 02/2011). Budget: 30.860 €
4. “Quality of natural water and wastewater treatment in insular ecosystems” – Research project in the framework of the Institutional Programme “T.E.I. of Ionian Islands – International Pole of Education and Innovation” – Greek Ministry of Education. Principal Investigator (11/2011 – 10/2012). Budget: 53.573,67 €
5. “Isolation and Identification of yeasts suitable for vinification of must derived from the Mavrodafni Kefalonias grape variety” – Research Programme ARCHIMEDES. Member of the main research team (05/2013 – 11/2015).
6. “Multidisciplinary study of air quality with emphasis indoors” - Research programme “THALES” – Acronym: IndraAQ. Member of the main research team. In collaboration with T.E.I. of Piraeus (09/2012 – 09/2015)

### **Teaching Assignments (since 2007 as faculty member at TEI of Ionian Islands)**

Environmental Thermodynamics, Environmental Chemistry, Water and Soil Pollution, General Chemistry, Physics I and II, Principles of Economics, Environmental Economics.

### **Journal Reviewer**

Biochemistry-US

Chemistry Education Research and Practice

Frontiers in Public Health

### **Publications**

#### **A. Publications in peer-review journals: 29 (h-factor:16)**

All publications have so far (May 2018) have received a total of 558 citations by other researchers.

1. **Koulougliotis, D.**, Nikolopoulos, D., Gorgolis, N., Karidas, L., Petraki, E., Yannakopoulos, P. H. (2018). “Effect of the operation mode and the distance on the electromagnetic radiation emitted by mobile devices: A pilot study in Greece.” *J. Civil Environ. Eng.* 8: 300. doi: 10.4172/2165-784X.1000300

2. **Koulougliotis, D.** and Eriotou, E. (2016). "Isolation and identification of endogenous yeast strains in grapes and must solids of Mavrodafni Kefalonias and antioxidant activity of the produced red wine", *Ferment. Technol.* 5: 125. doi:10.4172/2167-7972.1000125
3. **Koulougliotis, D.**, Kalimeris, A., Potozi, S., Lorilla, R.-S., Kefalas, G. & Nikolopoulos, D. (2015) "Indoor Air Pollution: The Case of Ozone in Three Regions in Greece", *J. Phys. Chem. Biophys.* 5: 191. doi: 10.4172/2161-0398.1000191
4. Kottou, S., Nikolopoulos, D., Yannakopoulos, P. H., Vogianis, E., Petraki, E., Panagiotaras, D. & **Koulougliotis, D.** (2015) "Preliminary background indoor EMF measurements in Greece", *Physica Medica* 31, 808-816.
5. Panagiotaras, D., **Koulougliotis, D.**, Nikolopoulos, D., Kalarakis, A.N., Yiannopoulos, A. Ch. & Pikios, K. (2015) "Biogeochemical Cycling of Nutrients and Thermodynamic Aspects", *J. Thermodyn. Catal.* 6:144. doi: 10.4172/2157-7544.1000144
6. Eriotou, E., Anastasiadou, K., Nikolopoulos, D. & **Koulougliotis, D.** (2015) "Antimicrobial and free radical scavenging activities of basil (*Ocimum basilicum*) essential oil isolated from five plant varieties growing in Greece", *J. Nutr. Food Sci.* 5: 367. doi: 10.4172/2155-9600.1000367
7. Nikolopoulos, D., **Koulougliotis, D.**, Vogianis, E., Petraki, E., Panagiotaras, D., Yannakopoulos, P. H. & Kottou, S. (2015) "Pilot Electromagnetic Field Measurements in Certain Areas in Greece", *J. Phys. Chem. Biophys.* 5:176. doi: 10.4172/2161-0398.1000176
8. Salta, K. and **Koulougliotis\*, D.** (2015) "Assessing motivation to learn chemistry: adaptation and validation of Science Motivation Questionnaire II with Greek secondary school students", *Chem. Educ. Res. Pract.* 16, 237-250.
9. Nikolopoulos, D., Petraki, E., Temenos, N., Kottou, S., **Koulougliotis, D.**, Yannakopoulos, P.H. (2014) "Hurst Exponent Analysis of Indoor Radon Profiles of Greek Apartment Dwellings". *J. Phys. Chem. Biophys.* 4:168. doi: 10.4172/2161-0398.1000168
10. Panagiotaras, D., Nikolopoulos, D., Petraki, E., Kottou, S., **Koulougliotis, D.**, Yannakopoulos, P., Kaplanis, S. (2014) "Comprehensive Experience for Indoor Air Quality Assessment: A Review on the Determination of Volatile Organic Compounds (VOCs)", *J. Phys. Chem. Biophys.* 4:159. doi: 10.4172/2161-0398.1000159
11. Kottou, S., Nikolopoulos, D., Vogianis, E., **Koulougliotis, D.**, Petraki, E., Yannakopoulos, P.H. (2014) "How Safe is the Environmental Electromagnetic Radiation?", *J. Phys. Chem. Biophys.* 4:146. doi: 10.4172/2161-0398.1000146
12. Salta, K., Gekos, M., Petsimeri, I., & **Koulougliotis\*, D.** (2012) "Discovering factors that influence the decision to pursue a chemistry-related career: A comparative analysis of the experiences of non scientist adults and chemistry teachers in Greece" *Chem. Educ. Res. Pract.* 13, 437-446.
13. **Koulougliotis\*, D.** (2009) "The S<sub>1</sub> and S<sub>2</sub> oxidation states of the O<sub>2</sub>-evolving complex of Photosystem II: An EPR microwave power saturation study" *Photosynthetica* 474, 567-574.
14. Sioros, G., **Koulougliotis, D.**, Karapanagos, G. & Petrouleas, V. (2007) "The S<sub>1</sub>Y<sub>Z</sub><sup>•</sup> Metalloradical EPR Signal of Photosystem II Contains Two Distinct Components That Advance Respectively to the Multiline and g=4.1 Components of S<sub>2</sub>" *Biochemistry* 46, 210-217.

15. Petrouleas, V., **Koulougliotis, D.**, & Ioannidis, N. (2005) "Trapping of Metalloradical Intermediates of the S-States at Liquid Helium Temperatures. Overview of the Phenomenology and Mechanistic Implications" *Biochemistry* 44, 6723-6728.
16. **Koulougliotis, D.**, Teutloff, C., Sanakis, Y., Lubitz, W., & Petrouleas, V. (2004). "The  $S_1Y_Z^{\bullet}$  Metalloradical Intermediate in Photosystem II: an X- and W-Band EPR Study" *Phys. Chem. Chem. Phys.* 6, 4859-4863.
17. **Koulougliotis, D.**, Shen, J.-R., Ioannidis, N., & Petrouleas, V. (2003) "Near-IR Irradiation of the  $S_2$  State of the Water Oxidizing Complex of Photosystem II at Liquid Helium Temperatures Produces the Metalloradical Intermediate Attributed to  $S_1Y_Z^{\bullet}$ ", *Biochemistry* 42, 3045-3053.
18. Arnesano, F., Banci, L., Bertini, I., **Koulougliotis, D.**, & Monti, A. (2000). "Monitoring mobility in the early steps of unfolding: the case of oxidized cytochrome  $b_5$  in the presence of 2 M guanidinium chloride", *Biochemistry* 39, 7117 - 7130.
19. Arnesano, F., Banci, L., Bertini, I., Felli, I.C., & **Koulougliotis, D.** (1999). "Solution structure of the B form of oxidized rat microsomal cytochrome  $b_5$  and backbone dynamics via  $^{15}N$  rotating-frame NMR relaxation measurements: Biological Implications", *Eur. J. Biochem.* 260, 347-354.
20. Arnesano, F., Banci, L., Bertini, I., & **Koulougliotis, D.** (1998). "Solution structure of oxidized rat microsomal cytochrome  $b_5$  in the presence of 2 M guanidinium chloride: Monitoring the early steps in protein unfolding", *Biochemistry* 37, 17082-17092.
21. Banci, L., Bertini, I., Cavazza, C., Felli, I.C., & **Koulougliotis, D.** (1998). "Probing the backbone dynamics of oxidized and reduced rat microsomal cytochrome  $b_5$  via  $^{15}N$  rotating-frame NMR relaxation measurements: Biological Implications", *Biochemistry* 37, 12320-12330.
22. Banci, L., Felli, I. C., **Koulougliotis, D.** (1998). "Identification of a conformational exchange process in the reduced recombinant High Potential Iron-Sulfur Protein (HiPIP I) from *Ectothiorodospira Halophila* via  $^{15}N$  rotating-frame NMR relaxation measurements", *J. Biomol. NMR* 12, 307-318.
23. Banci, L., Bertini, I., de la Rosa, M. A., **Koulougliotis, D.**, Navarro, J. A. & Walter, O. (1998). "The solution structure of oxidized cytochrome  $c_6$  from the green alga *Monoraphidium braunii*." *Biochemistry* 37, 4831-4843.
24. **Koulougliotis, D.**, Schweitzer, R. H., & Brudvig, G. W. (1997). "The Tetranuclear Manganese Cluster in Photosystem II: Location and Magnetic Properties of the  $S_2$  State as Determined by Saturation-Recovery EPR Spectroscopy." *Biochemistry* 36, 9735-9746.
25. **Koulougliotis, D.**, Tang, X. -S., Diner, B. A., & Brudvig, G. W. (1995). "Spectroscopic Evidence for the Symmetric Location of Tyrosines Z and D in Photosystem II." *Biochemistry* 34, 2850-2856.
26. Goldberg, D. P., **Koulougliotis, D.**, Brudvig, G. W., & Lippard, S. J. (1995). "A Phenoxyl Radical ( $\mu$ -Oxo)bis( $\mu$ -Carboxylato) Diiron(III) Complex as a Model for the Active Site of the R2 protein of Ribonucleotide Reductase." *J. Am. Chem. Soc.* 117, 3134-3144.

**27. Koulougliotis, D.,** Innes, J. B., & Brudvig, G. W. (1994). "Location of ChlorophyllZ in Photosystem II." *Biochemistry* 33, 11814-11822.

**28. Koulougliotis, D.,** Kostopoulos, T., Petrouleas, V., & Diner, B. A. (1993), "Evidence for CN<sup>-</sup> binding at the PSII non-heme Fe<sup>2+</sup>. Effects on the EPR signal for QA<sup>-</sup>-Fe<sup>2+</sup> and QA/QB electron transfer." *Biochim. Biophys. Acta* 1141, 275-282.

**29. Koulougliotis, D.,** Hirsh, D. J., & Brudvig, G. W. (1992). "The O<sub>2</sub>-Evolving Center of Photosystem II is Diamagnetic in the S<sub>1</sub>-Resting State." *J. Am. Chem. Soc.* 114, 8322-8323.

**B. Books:** 1

1. Member of the translation team (in Greek) of the book "Principles of Physical Biochemistry" by Kensal van Holde, W. Curtis Johnson and P. Shing Ho. Translated chapters 3, 8 and 12 of the original, ISBN 978-960-8002-55-5, . EMBRYO Publications, Athens 2009

**C. Abstracts in International Conferences (with review):** 31

**D. Articles in National Conferences (in Greek, with review):** 5