

CURRICULUM VITAE (November 2020)

Dr. DIONYSIOS KOULOGLIOTIS

Work Address: Department of Environment – Ionian University, M. Minotou-Giannopoulou, 29100, Zakynthos, Greece

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Born 7 March 1968 in Amalias, Ilias, GREECE

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

Current position: Professor – Department of Environment – Ionian University, M. Minotou-Giannopoulou, 29100, Zakynthos, Greece (since 10/2018)

Previous positions: a) Professor – Technological Educational Institute (T.E.I.) of Ionian Islands, Zakynthos, Greece (04/2013 – 09/2018)

b) Associate Professor – Technological Educational Institute (T.E.I.) of Ionian Islands, Zakynthos, Greece (10/2007-03/2013).

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

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

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

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

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

h) 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”,
Thesis Advisor: Prof. Gary W. Brudvig

National and Kapodistrian University of Athens, Athens, GREECE

B. Sc. in Physics, October 1989

B. A. in Economics, May 2013

Current Research Interests

a) Educational research with emphasis in science learning and teaching

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

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

d) Air pollution with emphasis indoors

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, 10/1998 - 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. Fulbright Scholar, Ph. D. research fellowship (09/1990 – 07/1995, Yale University-Department of Chemistry-New Haven, CT – USA).

Funded Projects (as faculty member)

Participation in 21 co-financed programs in the period between 2010-2020.

Below is a short list of these projects.

1. “Enhancing higher education on COMpex SYstem THINKING for sustainable development” (COSY THINKING), ERASMUS+ Strategic Partnerships for Higher Education, Principal Investigator for Greece (09/2020 – 08/2023)
2. “Upgrading the quality of local wines of the Ionian Islands via the use of indigenous yeast strains” – Research Programme funded by the Prefecture of Ionian Islands with MIS 5006342 (ESPA 2014-2020) – Principal Investigator (21/07/2017 – 31/12/2019)
3. “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).
4. “Chemistry is All Around Network” Lifelong Learning Programme – Comenius Subprogramme, Networks Action. Principal Investigator for Greece (12/2011 – 11/2014)
5. “Chemistry is All Around Us” Lifelong Learning Programme – Leonardo da Vinci Subprogramme, Principal Investigator for Greece (03/2010 – 02/2011).
6. “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).
7. “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)

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

Journal Reviewer

Biochemistry-US

Chemistry Education Research and Practice

Frontiers in Public Health

Publications

A. Publications in peer-review journals: 34 (h-index:16)

All publications have so far (November 2020) have received >650 citations by other researchers.

34. Lappa, I. K., Kachrimanidou, V., Pateraki, C., **Koulougliotis, D**, Eriotou, E. and Kopsahelis, N. (2020) “Indigenous yeast: emerging trends and challenges in winemaking” *Current Opinion in Food Science* 32, 133 – 143.

33. Eriotou, E., Kopsahelis, N., Lappa, I., Alimpoupa, D., Diamanti, V. and **Koulougliotis*, D.** (2020) "Identification of indigenous yeast strains from spontaneous vinification of grapes from the red variety *Avgoustiatis Zakynthou* (Ionian Islands, Greece) and antioxidant activity of the produced wine" *J Food Chem Nanotechnol* 6(2): 48-55.
32. Salta, K. & **Koulougliotis, D.** (2020) "Domain specificity of motivation: chemistry and physics learning among undergraduate students of three academic majors" *Int. J. Sci. Educ.* 42, 253-270.
31. Lappa, I. K., Papadaki, A., Kachrimanidou, V., Terpou, A., **Koulougliotis, D.**, Eriotou, E. and Kopsahelis, N. (2019) "Cheese whey processing: Integrated biorefinery concepts and emerging food applications" *Foods* 8, 347, doi:10.3390/foods8080347
30. Nikolopoulos, D., Moustris, K., Petraki, E., **Koulougliotis, D.** & Cantzos, D. (2019). "Fractal and long-memory traces in PM₁₀ time series in Athens, Greece" *Environments* 6, 29. doi:10.3390/environments6030029
29. **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
28. **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
27. **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
26. 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.
25. 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
24. 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
23. 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
22. 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.

21. 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
20. 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
19. 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
18. 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.
17. **Koulougliotis*, D.** (2009) "The S₁ and S₂ oxidation states of the O₂-evolving complex of Photosystem II: An EPR microwave power saturation study" *Photosynthetica* 474, 567-574.
16. Sioros, G., **Koulougliotis, D.**, Karapanagos, G. & Petrouleas, V. (2007) "The S₁Y_Z[•] Metalloradical EPR Signal of Photosystem II Contains Two Distinct Components That Advance Respectively to the Multiline and g=4.1 Components of S₂" *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.
14. **Koulougliotis, D.**, Teutloff, C., Sanakis, Y., Lubitz, W., & Petrouleas, V. (2004). "The S₁Y_Z[•] Metalloradical Intermediate in Photosystem II: an X- and W-Band EPR Study" *Phys. Chem. Chem. Phys.* 6, 4859-4863.
13. **Koulougliotis, D.**, Shen, J.-R., Ioannidis, N., & Petrouleas, V. (2003) "Near-IR Irradiation of the S₂ State of the Water Oxidizing Complex of Photosystem II at Liquid Helium Temperatures Produces the Metalloradical Intermediate Attributed to S₁Y_Z[•]", *Biochemistry* 42, 3045-3053.
12. Arnesano, F., Banci, L., Bertini, I., **Koulougliotis, D.**, & Monti, A. (2000). "Monitoring mobility in the early steps of unfolding: the case of oxidized cytochrome b₅ in the presence of 2 M guanidinium chloride", *Biochemistry* 39, 7117 - 7130.
11. Arnesano, F., Banci, L., Bertini, I., Felli, I.C., & **Koulougliotis, D.** (1999). "Solution structure of the B form of oxidized rat microsomal cytochrome b₅ and backbone dynamics via ¹⁵N rotating-frame NMR relaxation measurements: Biological Implications", *Eur. J. Biochem.* 260, 347-354.
10. Arnesano, F., Banci, L., Bertini, I., & **Koulougliotis, D.** (1998). "Solution structure of oxidized rat microsomal cytochrome b₅ in the presence of 2 M guanidinium chloride: Monitoring the early steps in protein unfolding", *Biochemistry* 37, 17082-17092.

9. 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.
8. 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.
7. 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.
6. **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.
5. **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.
4. Goldberg, D. P., **Koulougliotis, D.**, Brudvig, G. W., & Lippard, S. J. (1995). "A Phenoxyl Radical (μ -Oxo)bis(μ -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.
3. **Koulougliotis, D.**, Innes, J. B., & Brudvig, G. W. (1994). "Location of ChlorophyllZ in Photosystem II." *Biochemistry* 33, 11814-11822.
2. **Koulougliotis, D.**, Kostopoulos, T., Petrouleas, V., & Diner, B. A. (1993). "Evidences for CN^- binding at the PSII non-heme Fe^{2+} . Effects on the EPR signal for $\text{QA}^- - \text{Fe}^{2+}$ and QA/QB electron transfer." *Biochim. Biophys. Acta* 1141, 275-282.
1. **Koulougliotis, D.**, Hirsh, D. J., & Brudvig, G. W. (1992). "The O_2 -Evolving Center of Photosystem II is Diamagnetic in the S_1 -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. Articles in International Conferences (after review): 5

D. Articles in National Conferences (in Greek, after review): 9

E. Abstracts in International Conferences (after review): 40