

# CURRICULUM VITAE

## PERSONAL INFORMATION

Name	<b>IOANNIDIS NIKOLAOS, M.Sc, Ph.D</b>
Address	NATIONAL CENTER FOR SCIENTIFIC RESEARCH DEMOKRITOS Institute of Nanoscience and Nanotechnology Materials Science Sector 27 Neapoleos and Patriarchou Grigoriou E' str., Aghia Paraskevi, Attikis, 153 41 Athens Greece
Telephone	+30 2106503344, +30 2106503312
Fax	+30 2106519430
E-mail	n.ioannidis@inn.demokritos.gr
Nationality	GREEK
Date of birth	27 JANUARY 1963
Gender	Male
Marital status	Married, one child

## WORK EXPERIENCE

- Dates **1991 -1992**
- Name and address of employer Prof. Robert Poole, Division of Life Sciences, King's College London, UK.
- Type of business or sector Scientific research, public sector.
- Occupation or position held Post doctoral research associate. Research topic title: The determination of structure and function of the newly discovered haemoglobin-like protein (Hmp) in *E. coli*.
- Main activities and responsibilities
  - Isolation of the protein Hmp using standard biochemical techniques. Study of its catalytic centre using optical absorbance and EPR spectroscopy.
  - Laboratory assistance to PhD students and organization of seminars and journal clubs for Prof. Poole's research group.
- Dates **1993 -1994**
- Name and address of employer National service in the Army (by conscription)
- Dates **1995-1999**
- Name and address of employer Dr. Vassili Petrouleas, Institute of Materials Science (EPR laboratory), NCSR "DEMOKRITOS", Athens.
- Type of business or sector Scientific research, public sector.
- Occupation or position held Collaborating Researcher (equivalent to Researcher Grade D). Research topic title: Photocatalytic splitting of water by the manganese cluster of Photosystem II. Studies on the reaction mechanism.
- Main activities and responsibilities
  - Isolation of Photosystem II from spinach using standard biochemical techniques. Study of various aspects of its catalytic cycle using EPR spectroscopy.
  - Supervision and laboratory assistance to PhD students in similar research topics.
- Dates **1999-2000**
- Name and address of employer Dr. Vassili Petrouleas, Institute of Materials Science (EPR laboratory), NCSR "DEMOKRITOS", Athens.
- Type of business or sector Scientific research, public sector.
- Occupation or position held Recipient of state scholarship (IKY) for post doctoral research in Greece. Research topic title:

- Studies on the reaction mechanism of water splitting by the tera-manganese cluster of Photosystem II.
- Main activities and responsibilities
    - Isolation of Photosystem II from spinach using standard biochemical techniques. Study of the super reduced state of PSII characterized by a *dimeric* Mn(II)-Mn(III) EPR signal. Study of the normal S<sub>3</sub> state of PSII using EPR spectroscopy.
    - Supervision and laboratory assistance to PhD students in similar research topics.
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- Dates **2000-2007**
  - Name and address of employer Dr. Vassili Petrouleas, Institute of Materials Science (EPR laboratory), NCSR "DEMOKRITOS", Athens.
  - Type of business or sector Scientific research, public sector.
  - Occupation or position held Post doctoral research associate funded by research grants awarded to Dr. Petrouleas. Research topic title: Photocatalytic splitting of water by the manganese cluster of Photosystem II. Studies on the reaction mechanism.
- Main activities and responsibilities
    - Isolation of Photosystem II from spinach using standard biochemical techniques. Study of various aspects of its catalytic cycle, focusing on the S<sub>2</sub> and S<sub>3</sub> oxidation states of the Mn cluster of PSII, as well as on metalloradical intermediates, which comprise an organic radical (tyrosine) in magnetic interaction with the Mn cluster, using EPR spectroscopy.
    - Supervision and laboratory assistance to PhD students in similar research topics.
    - Supervision and guidance to younger researchers
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- Dates **2007- 2017**
  - Name and address of employer Institute of Nanoscience and Nanotechnology, Materials Science Sector (EPR laboratory), NCSR "DEMOKRITOS", Athens.
  - Type of business or sector Scientific research, public sector.
  - Occupation or position held Research Officer (on a permanent basis, IDAX).
- Main activities and responsibilities
    - Isolation of Photosystem II from spinach using standard biochemical techniques. Study of various aspects of its catalytic cycle using EPR spectroscopy. The main focus is on short-lived reaction intermediates (comprising the radical a tyrosine residue in magnetic interaction with the Mn cluster) trapped during the S-state cycle of Photosystem II.
    - Collaboration with other researchers from INN
    - Supervision and guidance to younger researchers.
    - Supervision and laboratory assistance to PhD students.
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- Dates **2017 -**
  - Name and address of employer Institute of Nanoscience and Nanotechnology, Materials Science Sector (EPR laboratory), NCSR "DEMOKRITOS", Athens.
  - Type of business or sector Scientific research, public sector.
  - Occupation or position held Researcher ELE B'
  - Main activities Electron and /or proton transfer in (bio)inorganic (photo)catalysis

#### Phd/ Post doctoral Guidance

Supervision and guidance of two Ph.D theses (Drs Georgia Zahariou and Maria Chrysina, University of Athens) and one post doctoral fellowship (Dr Georgia Zahariou), although I was still employed as IDAX

#### EDUCATION AND TRAINING

- Dates **1980 - 1985**
- Name and type of organisation providing education and training University of Ioannina, GREECE
- Principal subjects/occupational skills covered Dept. of Chemistry.
- Title of qualification awarded Chemistry
- Dates **1985 - 1986**
- Name and type of organisation providing education and training B.Sc
- Name and type of organisation providing education and training King's College London, University of London, UK
- Title of qualification awarded Dept. of Biochemistry

- Principal subjects/occupational skills covered
  - Title of qualification awarded
- Dates
- Name and type of organisation providing education and training
  - Principal subjects/occupational skills covered
  - Title of qualification awarded
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  - Principal subjects/occupational skills covered
- Dates
- Name and type of organisation providing education and training
  - Principal subjects/occupational skills covered

General Biochemistry

M.Sc

Thesis title: Gene transfer in Chinese Hamster Ovary Cells

**1986 - 1991**

King's College London, University of London, UK

Dept. of Biochemistry

Biochemistry

Ph.D

Thesis title: Intermediate states of mammalian cytochrome *c* oxidase: the resting/pulsed transition and the oxygen reduction reaction.

**1987**

Brock University, St. Catharines, CANADA.

Dept. of Biochemistry

One – month visit to Prof. Peter Nicholls's laboratory covering aspects on ligand binding kinetics to cytochrome *c* oxidase and metalloprotein electrophoretic techniques.

**1996**

Université catholique de Louvain, Louvain-la-Neuve, BELGIUM.

Participation in the FEBS - ESF 10-day Advanced Course «Chemistry of Metals In Biological Systems»

**2000**

Venice, ITALY

Participation in the School of Pure and Applied Biophysics covered the subject «Biophysics of Photosynthesis» (4 days)

**PERSONAL SKILLS  
AND COMPETENCES**

MOTHER TONGUE

**GREEK**

OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

**ENGLISH**

excellent

excellent

excellent

**SOCIAL SKILLS  
AND COMPETENCES**

Good team player, having worked in mainly two numerous research teams  
Good to communicate with people with diverse cultural background, based on years of leaving in international environments.

**OTHER SKILLS  
AND COMPETENCES**

quick-learner, self-motivated, posses intellectual curiosity

**DRIVING LICENCE(S)**

Car category B, motorcycle (125 cc)

## RESEARCH INTERESTS

Understanding of the function of active centers in biological systems, which catalyze important processes (conversion of light energy to electric charge separation, water oxidation, electron/proton transfer etc), exemplified by the multimeric enzyme Photosystem II (PSII) in photosynthetic bacteria and plants. Study of electron transfer reactions coupled to proton translocation, in PSII in order to elucidate the water splitting mechanism, by employing EPR spectroscopy (at 9.4 and 34 GHz). Identification and characterization of short-lived reaction intermediates which can be trapped during the reaction cycle of PSII at liquid He temperatures. These constitute organic radicals (tyrosine) which act synergistically with the Mn cluster (responsible for water oxidation). The aim of understanding the chemistry of elementary steps in the PSII reaction cycle at the molecular level is to synthesize inorganic counterparts capable of harnessing and utilisation of solar energy.

Trapping of short-lived reactive oxygen species (ROS), and other radicals, formed during semiconductor photocatalysis, with the aid of nitrene spin traps such DMPO and BMPO, and their identification by EPR spectroscopy.

## PARTICIPATION IN RESEARCH PROJECTS

-03/2013 to 03/2015: «Advanced Materials and Devices for Energy Collection and Administration», programme «KRIPIS» funded by the Greek Ministry of Education and EU. I participated as researcher on the deliverable Π1.9 «Construction of prototype DSCs based on Photosystem II», Project Coordinator: Dr. D. Niarchos, INN, NCSR Demokritos.

-01/01//2006 to 31/03/2008: «Photosynthetic Hydrogen Production», project 05NON-EU-112, Principal Investigator Dr V. Petrouleas, INN, NCSR Demokritos. I participated as member of the Greek research group.

-27/02//2004 to 26/02/2007: «Helium Liquefaction and Applications», project 03 AKMWN 49, Principal Investigator Dr V. Petrouleas, INN, NCSR Demokritos. I participated as member of the research group.

-1998-2002: «Photosynthetic Energy Conversion», European TMR network ERBFMRXCT980214, Principal Investigator Dr V. Petrouleas, INN, NCSR Demokritos.

-1998-2002: «Non-Heme Iron Proteins», European TMR network ERBFMRXCT980174, Principal Investigator Dr V. Petrouleas, INN, NCSR Demokritos.

## ADDITIONAL INFORMATION

### PUBLICATIONS IN REFEREED JOURNALS

(56 publications, 1501 citations, h index=22, as of Dec 2021 – from Scopus)

1. Zahariou, G., Sanakis, Y., Ioannidis, N.  
Evidence for the  $Mn_4-Y_z$  Magnetic Interaction in  $Ca^{2+}$ -depleted Photosystem II.  
Polyhedron, 2021; 206: 115335.
2. Chrysin, M., Zahariou, G., Ioannidis N., Sanakis Y., Mitrikas, G.  
Electronic Structure of Tyrosyl D Radical of Photosystem II, as Revealed by 2D-Hyperfine Sublevel Correlation Spectroscopy.  
Magnetochemistry, 2021; 7: 131.
3. Zahariou, G., Ioannidis, N., Sanakis, Y., Pantazis, D.A.  
Arrested Substrate Binding Resolves Catalytic Intermediates in Higher-Plant Water Oxidation.  
Angewandte Chemie - International Edition, 2021; 60(6): 3156-3162.
4. Toumazatou, A., Antoniadou, M., Sakellis, E., Tsoutsou, D., Gardelis, S., Romanos, G. E., Ioannidis, N., Boukos, N., Dimoulas, A., Falaras, P., Likodimos, V.  
Boosting visible light harvesting and charge separation in surface modified TiO<sub>2</sub> photonic crystal catalysts with CoOx nanoclusters.  
MATERIALS ADVANCES, 2021; 1 (7): 2310-2322.
5. Mitrikas, G., Sanakis, Y., Ioannidis, N.  
Parallel-Mode EPR of Atomic Hydrogen Encapsulated in POSS Cages.  
Applied Magnetic Resonance, 2020; 51(11): 1451-1466.

6. Todorova, N., Papailias, I., Giannakopoulou, T., Ioannidis, N., Boukos, N., Dallas, P., Edelmannová, M., Reli, M., Kočí, K., Trapalis, C.  
Photocatalytic H<sub>2</sub> evolution, CO<sub>2</sub> reduction, and NO<sub>x</sub> oxidation by highly exfoliated g-C<sub>3</sub>N<sub>4</sub>.  
*Catalysts*, 2020; 10(10): 1-27.
7. Antonopoulou, M., Ioannidis, N., Kaloudis, T., Triantis, T.M., Hiskia, A.  
Kinetic and mechanistic investigation of water taste and odor compound 2-isopropyl-3-methoxy pyrazine degradation using UV-A/Chlorine process.  
*Science of the Total Environment*, 2020; 732:138404.
8. Matsia, S., Menelaou, M., Hatzidimitriou, A., (...), Kersting, B., Salifoglou, A.  
Temperature-Sensitive Structural Speciation of Cobalt-Iminodiacetate-(N,N'-Aromatic Chelator) Systems: Lattice Architecture and Spectrochemical Properties.  
*European Journal of Inorganic Chemistry*, 2020; 2020(30): 2919-2940.
9. Papailias, I., Todorova, N., Giannakopoulou, T., Ioannidis, N., Dallas, P., Dimotikali, D., Trapalis, C.  
Novel torus shaped g-C<sub>3</sub>N<sub>4</sub> photocatalysts.  
*Applied Catalysis B: Environmental*, 2020; 268: 118733.
10. Ibrahim, I., Kaltzoglou, A., Athanasekou, C., Katsaros, F., Devlin, E., Kontos, A.G., Ioannidis, N., Perraki, M., Tsakiridis, P., Sygellou, L., Antoniadou, M., Falaras, P.  
Magnetically separable TiO<sub>2</sub>/CoFe<sub>2</sub>O<sub>4</sub>/Ag nanocomposites for the photocatalytic reduction of hexavalent chromium pollutant under UV and artificial solar light.  
*Chemical Engineering Journal*, 2020; 381:122730.
11. Matiadis, D., Tsironis, D., Stefanou, V., Elliott, A.G., Kordatos, Kc, Zahariou, G., Ioannidis, N., McKee, V., Panagiotopoulou, A., Igglessi-Markopoulou, O., Markopoulos, J.  
Synthesis, characterization and antimicrobial activity of N-acetyl-3-acetyl-5-benzylidene tetramic acid-metal complexes. X-ray analysis and identification of the Cd(II) complex as a potent antifungal agent.  
*J. Inorg. Biochem.*, 2019; 194: 65-73.
12. Chrysina, M., De Mendonça Silva, J.C., Zahariou, G., Pantazis, D.A., Ioannidis, N.  
Proton Translocation via Tautomerization of Asn298 during the S<sub>2</sub>-S<sub>3</sub> State Transition in the Oxygen-Evolving Complex of Photosystem II.  
*J. Phys. Chem. B*, 2019; 123(14): 3068-3078.
13. Arfanis, M.K., Athanasekou, C.P., Sakellis, E., Boukos, N., Ioannidis, N., Likodimos, V., Sygellou, L., Bouroushian, M., Kontos, A.G., Falaras, P.  
Photocatalytic properties of copper—Modified core-shell titania nanocomposites.  
*J. Photochem. Photobiol. A: Chemistry*, 2019; 370: 145-155.
14. Diamantopoulou, A., Sakellis, E., Romanos, G.E, Gardelis, S., Ioannidis, N., Boukos, N., Falaras, P., Likodimos, V.  
Titania photonic crystal photocatalysts functionalized by graphene oxide nanocolloids.  
*Applied Catalysis B: Environmental*, 2019; 240: 277-290.
15. Papailias, I., Todorova, N., Giannakopoulou, T., Ioannidis, N., Boukos, N., Athanasekou, C.P., Dimotikali, D., Trapalis, C.  
Chemical vs thermal exfoliation of g-C<sub>3</sub>N<sub>4</sub> for NO<sub>x</sub> removal under visible light irradiation.  
*Applied Catalysis B: Environmental*, 2018; 239: 16-26.
16. Zahariou, G. and Ioannidis, N.  
Theoretical Study of the EPR Spectrum of the S<sub>3</sub>TyrZ<sup>•</sup> Metalloradical Intermediate State of the O<sub>2</sub>-Evolving Complex of Photosystem II.  
*Photosynthesis Research*, 2016; 130: 417-426.
17. Tsougeni, K., Petrou, P.S., Awsuik, K., Marzek, M.M., Ioannidis, N., Petrouleas, V., Tserepi, A., Kakabakos, S.E., Gogolides, E.  
Direct Covalent Biomolecule Immobilization on Plasma-Nanotextured Chemically Stable

Substrates.

ACS Applied Materials and Interfaces, 2015; 7(27): 14670-14681.

18. Zahariou, G., Chrysina, M., Petrouleas, V., Ioannidis, N.  
Can we trap the S<sub>3</sub>Yz metalloradical intermediate during the S-state transitions of Photosystem II? An EPR investigation.  
FEBS Letters, 2014; 588(9): 1827-1831.
19. Liu, G., Han, C., Pelaez, M., Zhu, D., Liao, S., Likodimos, V., Ioannidis, N., Kontos, A. G., Falaras, P., Dunlop, P. S. M., Byrne, J. A., Dionysiou, D. D.  
Synthesis, characterization and photocatalytic evaluation of visible light activated C-doped TiO<sub>2</sub> nanoparticles.  
Nanotechnology, 2012; 23: 294003 (10pp).
20. Liolios, C. C., Zikos, C., Fragogeorgi, E., Benaki, D., Pelecanou, M., Pirmettis, I., Ioannidis, N., Sanakis, Y., Raptopoulou, C. P., Psycharis, V., Terzis, A., Boschetti, F., Papadopoulos, M. S., Sivolapenko, G., Varvarigou, A. D.  
A Bombesin Copper Complex Based on a Bifunctional Cyclam Derivative.  
Eur. J. Inorg. Chem., 2012; 2012 (17): 2877–2888.
21. Casitas, A., Ioannidis, N., Mitrikas, G., Costas, M., Ribas, X.  
Aryl-O reductive elimination from reaction of well-defined aryl-Cu(iii) species with phenolates: the importance of ligand reactivity.  
Dalton Trans., 2011; 40: 8796-8799.
22. Chrysina, M., Zahariou, G., Sanakis, Y., Ioannidis, N., Petrouleas, V.  
Conformational changes of the S(2)Y(Z) intermediate of the S(2) to S(3) transition in photosystem II.  
J. Photochem. Photobiol. B, 2011; 104: 72-79.
23. Chrysina, M., Zahariou, G., Ioannidis, N., Petrouleas, V.  
Conversion of the g =4.1 EPR signal to the multiline conformation during the S<sub>2</sub> to S<sub>3</sub> transition of the oxygen evolving complex of Photosystem II.  
Biochim, Biophys. Acta, 2010; 1797: 487-493.
24. Papavassiliou, G. C., Anyfantis, G. C., Raptopoulou, C. P., Psycharis, V., Ioannidis, N., Petrouleas, V., and Paraskevopoulou, P.  
Bis[1,2-diphenyl-1,2-ethylenedithiolato(2-)-kS<sub>1</sub>,kS<sub>2</sub>] gold: Preparation, structure and properties.  
Polyhedron, 2009; 28: 3368-3372.
25. Ioannidis, N., Zahariou, G., and Petrouleas, V.  
The EPR spectrum of Tyrosine Z<sup>\*</sup> and its Decay Kinetics in O<sub>2</sub>-evolving Photosystem II Preparations  
Biochemistry, 2008; 47: 6292-6300.
26. Zahariou, G., Ioannidis, N., Sioros, G., and Petrouleas, V.  
The Collapse of the Tyrosine Z<sup>\*</sup>-Mn Spin-Spin Interaction above approximately 100 K Reveals the Spectrum of Tyrosine Z<sup>\*</sup>. An Application of Rapid-Scan EPR to the Study of Intermediates of the Water Splitting Mechanism of Photosystem II.  
Biochemistry. 2007; 46: 14335-14341. (**accelerated publication**)
27. Ioannidis, N., Zahariou, G., and Petrouleas, V.  
Trapping of the S<sub>2</sub> to S<sub>3</sub> State Intermediate of the Oxygen-Evolving Complex of Photosystem II.  
Biochemistry. 2006; 45: 6252-6269. (**accelerated publication**)
28. Petrouleas, V., Koulougliotis, D., and Ioannidis, N.  
Trapping of Metalloradical Intermediates of the S-States at Liquid-Helium Temperatures. Overview of the Phenomenology and Mechanistic Implications.  
Biochemistry, 2005; 44: 6723-6728. (**New Concepts**)

29. Rémigy, H-W., Aivaliotis, M., [Ioannidis, N.](#), Jenö, P., Mini, T., Engel, A., Jaquinod, M., and Tsiotis, G.  
Characterization by Mass Spectroscopy of a 10 kDa c-554 Cytochrome from the Green Sulfur Bacterium *Chlorobium Tepidum*.  
Photosynthesis Research, 2003; 78(2): 153-160.
30. Koulougliotis, D., Shen, J.-R., [Ioannidis, N.](#), and Petrouleas, V.  
Near-IR Irradiation of the S<sub>2</sub> State of the Water Oxidizing Complex of Photosystem II at Liquid Helium Temperatures Produces the Metalloradical Intermediate Attributed to S<sub>1</sub>Yz.  
Biochemistry, 2003; 42: 3045-3053.
31. Goussias, C., Deligiannakis, Y., Sanakis, Y., [Ioannidis, N.](#), and Petrouleas, V.  
Probing subtle coordination changes in the iron-quinone complex of Photosystem II during charge separation, by the use of NO.  
Biochemistry, 2002; 41: 15212-15223.
32. Gournis, D., Deligiannakis, Y., Karakassides, M. A., Bousac, A., [Ioannidis, N.](#), and Petridis, D.  
Stability Study of Tyrosinate Radical in a Restricted Phyllo-morphous Medium.  
Langmuir, 2002; 18: 10024-10029.
33. [Ioannidis, N.](#), and Petrouleas, V.  
Decay Products of the S<sub>3</sub> State of the Oxygen Evolving Complex of Photosystem II at Cryogenic Temperatures. Pathways to the Formation of the S = 7/2 S<sub>2</sub> State Configuration.  
Biochemistry, 2002; 41: 9580-9588.
34. [Ioannidis, N.](#), Nugent, J. H. A., and Petrouleas, V.  
Intermediates of the S<sub>3</sub> State of the Oxygen Evolving Complex of Photosystem II.  
Biochemistry, 2002; 41: 9589-9600.
35. Sanakis, Y., [Ioannidis, N.](#), Sioros, G., and Petrouleas, V.  
A Novel S = 7/2 Configuration of the Mn Cluster of Photosystem II.  
Journal of the American Chemical Society, 2001; 123(43): 10766-10767.
36. Sanakis, Y., Tagmatarchis, N., Aslanis, E., [Ioannidis, N.](#), Petrouleas, V., Shinohara, H., and Prassides, K.  
Dual-Mode X-Band EPR Study of Two Isomers of the Endohedral Metallofullerene [Er@C<sub>82</sub>](#).  
Journal of the American Chemical Society, 2001; 123(40): 9924-9925.
37. Psylinakis, E., Davoras, E. M., [Ioannidis, N.](#), Trikeriotis, M., Petrouleas, V. & Ghanotakis, D. F.  
Isolation and spectroscopic characterization of a recombinant bell pepper hydroperoxide lyase.  
Biochimica et Biophysica Acta, 2001; 1533(2): 119-127.
38. Stevanin, T. M., [Ioannidis, N.](#), Mills, C. E., Kim, S. O., Hughes, M. N. and Poole, R. K.  
Flavohemoglobin Hmp affords inducible protection for *Escherichia coli* respiration catalyzed by cytochromes *bo'* or *bd*, from nitric oxide.  
The Journal of Biological Chemistry. 2000; 275: 35868-35875.
39. [Ioannidis, N.](#) & Petrouleas, V.  
Electron Paramagnetic Resonance Signals from the S<sub>3</sub> State of the Oxygen - Evolving Complex. A Broadened Radical Signal Induced by Low – Temperature Near – Infrared Light Illumination.  
Biochemistry. 2000; 39: 5246-5254 (**accelerated publication**).
40. [Ioannidis, N.](#), Schansker, G., Barynin, V. V. & Petrouleas, V.  
Interaction of nitric oxide with the oxygen evolving complex of Photosystem II and manganese catalase: a comparative study.  
Journal of Biological Inorganic Chemistry. 2000; 5: 354-363.
41. [Ioannidis, N.](#), Sarrou, J., Schansker, G. & Petrouleas, V.



NO reversibly reduces the water oxidising complex of photosystem II through  $S_0$  and  $S_{-1}$  to the state characterised by the Mn(II)-Mn(III) multiline EPR signal. *Biochemistry*. 1998; 37: 16445 – 16451. (**accelerated publication**)

42. Anjum, M. F., Ioannidis, N. & Poole, R. K.  
Response of the NAD(P)H-flavo-haemoglobin (Hmp) to prolonged oxidative stress and implications for its physiological role in *Escherichia coli*.  
*FEMS Microbiology Letters*. 1998; 166: 219.
43. Sarrou, J., Ioannidis, N., Deligiannakis, Y. & Petrouleas, V.  
A Mn(II)-Mn(III) EPR signal arises from the interaction of NO with the water oxidising complex of Photosystem II.  
*Biochemistry*. 1998; 37: 3581 - 3587. (**accelerated publication**)
44. Goussias, C., Ioannidis, N. & Petrouleas, V.  
Low temperature interactions of NO with the  $S_1$  and  $S_2$  states of the water oxidising complex of Photosystem II. A novel Mn-multiline EPR signal derived from the  $S_1$  state.  
*Biochemistry*. 1997; 36: 9261-9266.
45. Papavassiliou, G., Fardis, M., Milia, F., Simopoulos, A., Kallias, G., Pissas, M., Niarchos, D., Ioannidis, N., Dimitropoulos, C., Dolinsek, J.  
A  $^{139}\text{La}$  NMR investigation of spin ordering in  $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ .  
*Physical Review B*. 1997; 55: 15000.
46. Membrillo-Hernandez, J., Ioannidis, N., Poole, R. K.  
The flavohaemoglobin (HMP) of *Escherichia coli* generates superoxide in vitro and causes oxidative stress in vivo.  
*FEBS Letters*. 1996; 382: 141-144.
47. Poole, R. K., Ioannidis, N. & Orii, Y.  
Reaction of the *Escherichia coli* flavohaemoglobin (HMP) with NADH and near - micromolar oxygen: oxygen affinity of NADH oxidase activity.  
*Microbiology*. 1996; 142: 1141 – 1148.
48. Poole, R. K., D'mello, R., Hill, S., Ioannidis, N., Leung, D., Wu, G.  
The oxygen reactivity of bacterial respiratory haemoproteins: oxidases and globins.  
*Biochimica et Biophysica Acta*. 1994; 1187: 226 - 231.
49. Cooper, C. E., Ioannidis, N., D'mello, R. & Poole, R. K.  
Haem, flavin and oxygen interactions in Hmp, a flavohaemoglobin from *Escherichia coli*.  
*Biochemical Society Transactions*. 1994; 22: 709-713.
50. Poole, R. K., Ioannidis, N. & Orii, Y.  
Reactions of the *Escherichia coli* flavohaemoglobin (Hmp) with oxygen and reduced nicotinamide adenine dinucleotide. Evidence for oxygen switching of flavin oxidoreduction and a mechanism for oxygen sensing.  
*Proceedings of Royal Society London, Series B*. 1994; 255: 251-258.
51. Cooper, C. E., Junemann, S., Ioannidis, N. & Wigglesworth, J. M.  
Slow ("resting") forms of mitochondrial cytochrome c oxidase consist of two distinct conformations of the binuclear CuB/a3 centre - relevance to the mechanism of proton translocation.  
*Biochimica et Biophysica Acta*. 1993; 1144: 149-160.
52. Orii, Y., Ioannidis, N. & Poole, R.K.  
The oxygenated flavohaemoglobin (Hmp) from *Escherichia coli*: evidence from photodissociation and rapid-scan studies for two kinetic and spectral forms.  
*Biochemical and Biophysical Research Communications*. 1992; 187: 94-100.
53. Ioannidis, N., Cooper, C. E. & Poole, R.K.  
Spectroscopic studies on an oxygen-binding haemoglobin like flavohaemoprotein from

*Escherichia coli*.

Biochemical Journal. 1992; 288: 649-655.

54. Cooper, C. E., Moody, A. J., Rich, P. Wigglesworth, J. M. & Ioannidis, N.

The cytochrome oxidase g'=12 EPR signal.

Biochemical Society Transactions. 1991; 19: 259S.

55. Ioannidis, N. & Wigglesworth, J. M.

Does cytochrome c oxidase exist in both low- and high-spin pulsed forms? Biochemical Society Transactions. 1989; 17: 897-898.

56. Wigglesworth, J. M., Ioannidis, N. & Nicholls, P.

Spectrophotometric characterisation of intermediate redox states of cytochrome c oxidase.

Annals of New York Academy of Sciences. 1988; 550: 150-160.

## **PUBLICATIONS IN PROCEEDINGS OF INTERNATIONAL CONFERENCES**

57. Hiskia, A., Fotiou, T., Triantis, T.M., Kaloudis, T., Ioannidis, N. (2015)

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