

**1. Papers in Refereed Journals**

1. "Dynamics on the ground-state potential surfaces of H<sub>3</sub> and its isotopomers from their uv spectra",  
D. Azinovic, R. Bruckmeier, Ch. Wunderlich, H. Figger, G. Theodorakopoulos and I.D. Petsalakis,  
Phys. Rev. A 58, 1115 (1998).
  
2. "Theoretical study on the Rydberg states of NeH: Ab initio quantum defect and complex coordinate calculations",  
I.D. Petsalakis, G. Theodorakopoulos, Y. Li, G. Hirsch, R.J. Buenker and M.S. Child,  
J. Chem. Phys. 108, 7607 (1998).
  
3. "An ab initio potential energy surface and spectroscopic constants for the X<sup>1</sup>Σg<sup>+</sup> state of NO<sub>2</sub><sup>+</sup>",  
G. Theodorakopoulos, I.D. Petsalakis and M.S. Child,  
J. Mol. Struct. (Theochem) 434, 177 (1998).
  
4. "Very highly excited bound states of atomic negative ions having all their electrons with unpaired spins",  
N.A. Piangos and C.A. Nicolaides,  
J. Phys. B 31, L147 (1998).
  
5. "The H<sup>2</sup>-<sup>4</sup>S<sup>o</sup> spectrum has at least two resonance states",  
M. Bylicki and C.A. Nicolaides,  
J. Phys. B 31, L685 (1998).
  
6. "The significance of electron correlation and of state symmetries in the interaction of strong laser pulses of 5 eV with He",  
C. A. Nicolaides, S. Dionissopoulou and Th. Mercouris,  
J. Phys. B 31, L1 (1998).
  
7. "Computation of the position and the width of the B<sup>-</sup> 1s<sup>2</sup>2s<sup>2</sup>2p<sup>2</sup> <sup>1</sup>D shape resonance",  
C. Sinanis, Y. Komninos and C.A. Nicolaides,  
Phys. Rev. A 57, R3158 (1998).
  
8. "Geometrically active atomic states and the formation of molecules in their normal shapes",  
C.A. Nicolaides and Y. Komninos,  
Int. J. Quant. Chem. 67, 321 (1998).
  
9. "Single and double photoionization cross sections of the He<sup>-</sup> 1s2s2p <sup>4</sup>P<sup>o</sup> state at and far from threshold, from the many-electron, many-photon theory",  
C. Haritos, Th. Mercouris and C.A. Nicolaides,  
J. Phys. B 31, L783 (1998).

10. "Device parameter optimization of strained Si channel SiGe/Si n-modfet's using a one-dimensional charge control model",  
G. Halkias and A. Vegiri,  
IEEE Trans. Electron Devices 45, 2430 (1998).
11. "Theoretical investigation of metastable hydrogen de-excitation in collisions with He and Ne",  
A. Vegiri,  
J. Phys. B 31, 473 (1998).
12. "Preparation, structure and optical properties of  $[\text{H}_3\text{N}(\text{CH}_2)_6\text{NH}_3]\text{BiX}_5$  (X=I, Cl) and  $[\text{H}_3\text{N}(\text{CH}_2)_6\text{NH}_3]\text{SbX}_5$  (X=I, Br)",  
G.A. Mousdis, G.C. Papavassiliou, A. Terzis and C.P. Raptopoulou,  
Z. Naturforsch. B 53, 927 (1998).
13. "Preparation, structure and optical properties of  $[\text{CH}_3\text{SC}(=\text{NH}_2)\text{NH}_2]_3\text{PbI}_5$ ,  $[\text{CH}_3\text{SC}(=\text{NH}_2)\text{NH}_2]_4\text{Pb}_2\text{Br}_8$  and  $[\text{CH}_3\text{SC}(=\text{NH}_2)\text{NH}_2]_3\text{PbCl}_5 \cdot \text{CH}_3\text{SC}(=\text{NH}_2)\text{NH}_2\text{Cl}$ ",  
G.A. Mousdis, V. Gionis, G.C. Papavassiliou, C.P. Raptopoulou and A. Terzis,  
J. Mater. Chem. 8, 2259 (1998).
14. "Synthetic low-dimensional semiconductors based on inorganic units"  
G.C. Papavassiliou, G.A. Mousdis, I. Koutselas, C.P. Raptopoulou, A. Terzis, M.G. Kanatzidis and A. Axtell III,  
Adv. Mat. Opt. Electron. 8, 263 (1998).
15. "Hysteretic magnetic state in the organic  $\tau$ -phase conductors",  
K. Murata, H. Yoshinori, Y. Tsukabi, and G.C. Papavassiliou,  
Synth. Met. 94, 69 (1998).
16. "Dielectric and structural investigation of alkali triborate glasses",  
G.D. Chryssikos, L. Liu, C.P. Varsamis and E.I. Kamitsos,  
J. Non-Cryst. Solids 235-237, 761 (1998).
17. "Polarising power and polarisability of the  $\text{Ag}^+$  ion in glass: the basicity of silver(I) oxide",  
J.A. Duffy, B. Harris, E.I. Kamitsos, G.D. Chryssikos and J.A. Kapoutsis,  
Phys. Chem. Glasses 39, 275 (1998).
18. "Alkali sites in glass",  
E.I. Kamitsos and G.D. Chryssikos,  
Solid State Ionics 105, 75 (1998).
19. "Molecular orientation of hairy-rod polyesters: effects of side chain length",  
K. Andrikopoulos, D. Vlassopoulos, G.A. Voyiatzis, Y.D. Yiannopoulos and E.I. Kamitsos,  
Macromolecules 31, 5465 (1998).
20. "Laser-Raman and FTIR spectroscopic studies of peptide-analogues of silkworm chorion protein segments",  
D.C. Benaki, A. Aggeli, G.D. Chryssikos, Y.D. Yiannopoulos, E.I. Kamitsos, E. Brumley, S.T. Case, N. Boden and S. Hamodrakas,

Int. J. Biol. Macrom. 23, 49 (1998).

21. "Laser plasma X-ray contact microscopy of living specimens using a chemically amplified epoxy resist",

A.C. Cefalas, P. Argitis, Z. Kollia, E. Sarantopoulou, T.W. Ford, A.D. Stead, A. Marranka, C.N. Danson, J. Knott and D. Neely,

Appl. Phys. Lett. 72, 3258 (1998).

22. "On the  $4f^25d \rightarrow 4f^3$  interconfigurational transitions of  $Nd^{3+}$  ions in  $K_2YF_5$  and  $LiYF_4$  crystal hosts",

Z. Kollia, E. Sarantopoulou, A.C. Cefalas, A.K. Naumov, V.V. Semashko R. Yu. Abdulsabirov, S.L. Korableva,

Opt. Commun. 149, 386 (1998).

23. "On the VUV and UV  $4f^7(^8S)5d-4f^8$  interconfiguration transitions of the  $Tb^{3+}$  ions in  $LiLuF_4$  single crystal hosts",

E. Sarantopoulou, Z. Kollia, A.C. Cefalas, V.V. Semashko, R. Yu, Abdulsabirov, A.K. Naumov, S.L. Korableva,

Opt. Commun. 156, 101 (1998).

24. "Etch resistance enhancement and absorbance optimization with polyaromatic compounds for the design of 193 nm photoresists",

P. Argitis, M.A. Vasilopoulou, E. Gogolides, E. Tegou, M. Hatzakis, Z. Kollia and A.C. Cefalas,

Microelectron. Eng. 41-42, 355 (1998).

## **2. Papers in Proceedings of International and National Conferences**

1. "Optical and related properties of some synthetic low-dimensional semiconductors based on metal sulfide units",

G.C. Papavassiliou, G.A. Mousdis, I.B. Koutselas, M.G. Kanatzidis, E.A. Axtell III, M.-H. Whangbo,

in Excitonic Processes in Condensed Matter, R. T. Williams and W. M. Yen (Eds.), The Electrochemical Society, USA (1998), pp. 343-348.

2. "Structure of  $AgI-Ag_2O-B_2O_3$  glasses by infrared spectroscopy",

C.P. Varsamis, E.I. Kamitsos, G.D. Chryssikos and J.A. Kapoutsis,

Proc. 18th Int. Congress on Glass, M.K. Choudham, N.T. Huff, C.H. Drummond (Eds.), Am. Ceram. Society, Westerville, Ohio, 1998, pp. 39-44.

3. "Excited state absorption from the 5d states of  $Ce^{3+}$  ions in  $LiCaF_6$  crystals",

V.V. Semashko, R.Y. Abdulsabirov, S.L. Korableva, A.K. Naumov, B.M. Galjautdinov, A.C. Cefalas, Z. Kollia, E. Sarantopoulou,

Proc. Int. Conference on Photonic Echo and Coherent Spectroscopy, V.V. Samartsev (Ed.), SPIE-Int. Soc. Opt. Eng. (1998), vol. 3239, pp. 240-245.

4. " $4f^3 \rightarrow 4f^25d$  interconfigurational transitions of  $Nd^{3+}$  ions in  $LiCaAlF_6$  single crystal",

Z. Kollia, E. Sarantopoulou, A.C. Cefalas, A.K. Naumov, S. L. Korableva, R. Y. Abdulsabirov and V. V. Semashko,

Proc. 2<sup>nd</sup> Int. Conference on New Laser Technologies and Applications, A. Carabelas, P. Di Lazzaro, A. Torre and G. Baldacchini (Eds.), SPIE-Int. Soc. Opt. Eng. (1998), vol. 3423, pp. 242-246.

5. "Single pulse high resolution X-ray contact microscopy with an advanced epoxy novolac resist",

P. Argitis, A.C. Cefalas, Z. Kollia, E. Sarantopoulou, T. W. Ford, A. D. Stead, A. Marranka, C.N. Danson, J. Knott, D. Neely,

Proc. 2<sup>nd</sup> Int. Conference on New Laser Technologies and Applications, A. Carabelas, P. Di Lazzaro, A. Torre and G. Baldacchini (Eds.), SPIE-Int. Soc. Opt. Eng. (1998), vol. 3423, pp. 411-415.

6. "Qualitative determination of organic pollutants in aquatic environment by laser-induced fluorescence combined with optical fibers",

F. Roubani-Kalantzopoulou, M. Kompitsas, A. Mavropoulos and I. Bassiotis,

Proc. 2<sup>nd</sup> Int. Conference on New Laser Technologies and Applications, A. Carabelas, P. Di Lazzaro, A. Torre and G. Baldacchini (Eds.), SPIE-Int. Opt. Eng. (1998), vol. 3423, pp. 266-270.

7. "Kinetics of gas-phase tropospheric reactions of organic solvents and hydroxyl radical by laser photolysis-laser induced fluorescence",

M. Kompitsas, A. Mellouki, G. Le Bras, F. Roubani-Kalantzopoulou, A. Mavropoulos and I. Bassiotis,

Proc. 2<sup>nd</sup> Int. Conference on New Laser Technologies and Applications, A. Carabelas, P. Di Lazzaro, A. Torre and G. Baldacchini (Eds.), SPIE-Int. Opt. Eng. (1998), vol. 3423, pp. 271-275.

8. "An electron-swarm mass spectrometric study of electron attachment to thiophenol and its anion molecule reactions",

S.M. Spyrou and G. Roupakas,

Proc. XIV<sup>th</sup> Europhysics Conference on Atomic & Molecular Physics of Ionized Gases, D. Riley, C.M.O. Mahony and W.G. Graham (Eds.), EPS, Belfast, Ireland (1998), 22h, pp. 110-111.

### **3. Dissertations**

#### **a. PhD theses**

1. "Nonlinear dynamics of magnetic systems",

V. Constantoudis, supervisor N. Theodorakopoulos, University of Athens, Physics Department (1998).

2. "Unconventional low-dimensional semiconducting systems",

I.B. Koutselas, supervisor G.C. Papavassiliou, University of Athens (1998).

3. "Synthesis and spectroscopic studies of technologically important amorphous materials",

I. Kapoutsis, supervisors E.I. Kamitsos and J.C. Papaioannou, University of Athens, Chemistry Department (1998).

**b. Honors theses**

1. “Structural studies of ionic glasses”,  
I. Dalmaris and I. Koniaris, supervisors E.I. Kamitsos and A.T. Tsatsas, University of Athens, Chemistry Department (1998).