

**1. Papers in Refereed Journals**

1. "Theoretical investigation of the character of the electronic states of H<sub>2</sub>O along a linear dissociation path leading to OH + H",  
G. Theodorakopoulos, I.D. Petsalakis and R.J. Buenker,  
Chem. Phys. Lett. 138, 71 (1987).
2. "Potential energy hypersurfaces of H<sub>4</sub> in the ground and the first two singlet excited electronic states",  
G. Theodorakopoulos, I.D. Petsalakis and C.A. Nicolaidis,  
Theochem - J. Mol. Structure 149, 23 (1987).
3. "Non-orthonormal basis calculations of the dipole transition moment for the phillips system (A <sup>1</sup>Π<sub>u</sub> → X <sup>1</sup>Σ<sub>g</sub><sup>+</sup>) in C<sub>2</sub>. Theoretical lifetime of the A <sup>1</sup>Π<sub>u</sub> state",  
G. Theodorakopoulos, I.D. Petsalakis, C.A. Nicolaidis and R.J. Buenker,  
Chem. Phys. 112, 319 (1987).
4. "Theoretical dipole transition moments for the transitions to the ground state X<sup>2</sup>σ<sup>+</sup> from the A<sup>2</sup>Σ<sup>+</sup>, B<sup>2</sup>Π, C<sup>2</sup>Σ<sup>+</sup>, D<sup>2</sup>Σ<sup>+</sup> and E<sup>2</sup>Π states and for the B <sup>2</sup>Π → A<sup>2</sup>Σ<sup>+</sup> system in HeH",  
G. Theodorakopoulos, I.D. Petsalakis, C.A. Nicolaidis and R.J. Buenker,  
J. Phys. B 20, 2339 (1987).
5. "Theoretical investigation of the excited states of NeH: calculations of dipole transition moments and radial coupling matrix elements",  
G. Theodorakopoulos, I.D. Petsalakis and R.J. Buenker,  
J. Phys. B 20, 5335 (1987).
6. "Theoretical dipole transition moments for transitions between bound electronic states and non-adiabatic coupling matrix elements between <sup>2</sup>Σ<sup>+</sup> of HeH",  
I.D. Petsalakis, G. Theodorakopoulos, C.A. Nicolaidis and R.J. Buenker,  
J. Phys. B 20, 5959 (1987).
7. "Permutation inversion symmetry considerations on the allowed geometry of a transition-state complex",  
A. Metropoulos,  
J. Phys. Chem. 91, 2233 (1987).
8. "Assessment of the accuracy of the quasi-classical trajectories approximation at a low collision energy for the He-N<sub>2</sub> system",  
A. Metropoulos,  
Z. Naturforsch. A 42, 731 (1987).
9. "Adiabatic calculations of the <sup>2</sup>Σ<sub>g</sub><sup>+</sup> excited states of He<sup>+</sup><sub>2</sub>",

- A. Metropoulos, C.A. Nicolaides and R.J. Buenker,  
Chem. Phys. 114, 1(1987).
10. "Towards understanding the stability of the  $H^*_4 (C_{3v})$  cluster",  
A. Metropoulos and C.A. Nicolaides,  
Z. Physik D 5, 175 (1987).
11. "Physical origins of high-order Born-Oppenheimer electronic polarizabilities:  
Application to a 30th-order perturbation study of  $H_2^+$ ",  
J.N. Silverman,  
Chem. Phys. Lett. 142, 477 (1987).
12. "Wave-functions and autoionization of doubly excited-states in momentum space",  
C.A. Nicolaides, N. Makri and Y. Komninos,  
J. Phys. B 20, 4963 (1987).
13. "Wannier two-electron ionization ladder of  $^1P^o$  symmetry in  $H^-$ , He, and  $Li^+$ ",  
C.A. Nicolaides and Y. Komninos,  
Phys. Rev. A 35, 999 (1987).
14. "Partial autoionization widths of inner hole states of O V from the complex-eigenvalue Schrödinger-equation",  
C.A. Nicolaides and T. Mercouris,  
Phys. Rev. A 36, 390 (1987).
15. "The two-electron ionisation ladder for  $He^- 2S$  and  $H^- 1S$ ",  
Y. Komninos, M. Chrysos and C.A. Nicolaides,  
J. Phys. B 20, L791 (1987).
16. "Multichannel reaction matrix-theory and configuration-interaction in the discrete and in the continuous-spectrum - inclusion of closed channels and derivation of quantum defect theory",  
Y. Komninos and C.A. Nicolaides,  
Z. Physik D 4, 301 (1987).
17. "Solution of the complex eigenvalue Schrödinger equation for the rydberg series of inner hole excited autoionizing states. The Be  $1s 2s^2 n p (n=2-5)^3P^0$  and  $^1P^0$  series",  
T. Mercouris and C.A. Nicolaides,  
Z. Physik D 5, 1 (1987).
18. "Electron-affinities of states of Sc and Cu",  
D.R. Beck, Z.Y. Cai and G. Asproumellis,  
Int. J. Quant. Chem., 457 (1987).
19. "Analytic CPA approach to nonstoichiometric  $PdH_x$ . I",  
A.N. Andriotis,  
J. Phys. F 17, 75 (1987).

20. "Verification of the Esbjerg-Norskov relation from small-cluster calculations",  
A.N. Andriotis,  
Phys. Rev. B 36, 4469 (1987).
21. "Generalized coherent potentials and the cluster Bethe lattice",  
A.N. Andriotis and J.E. Lowther,  
South African Journal of Physics 10, 135 (1987).
22. "Directionality of the metallic bonding in titanium carbide",  
J.E. Lowther and A.N. Andriotis,  
J. Phys. Chem. Solids 48, 713 (1987).
23. "Dressed-atom approach to embedding and physisorption in metals",  
A.N. Andriotis and C.A. Nicolaidis,  
Phys. Rev. B 35, 2583 (1987).
24. "Calculation of inner core electron-binding energies in metals",  
A.D. Zdetsis and C.A. Nicolaidis,  
J. de Physique 48, 1071 (1987).
25. "Disodium 5-cyanoisothiazoledithiolate as a starting material for preparation of new  
conductive solids",  
G.C. Papavassiliou, G.A. Mousdis, V. Gionis, J.S. Zambounis and S.Y. Yiannopoulos,  
Z. Naturforsch. B 42, 1050 (1987).
26. "Crystal-structures and spectroscopic and electrical-properties of alkylthio-1,2-  
dithiolium-TCNQ charge-transfer complexes",  
A. Terzis, E.I. Kamitsos, V. Psycharis, J.S. Zambounis, J. Swiatek and G. C. Papavassiliou,  
Synth. Met. 19, 481 (1987).
27. "Crystal-structures, electrical and optical-properties of  $(BPTTF)_mX_n$  ( $X=BF_4, I_3$ ) and  
similar salts",  
G.C. Papavassiliou, A. Terzis, A.E. Underhill, H.P. Geserich, B. Kaye, A. Hountas and S.Y.  
Yiannopoulos,  
Synth. Met. 19, 703 (1987).
28. "Synthesis of pyrazinodithiadiselenafulvalenes - new unsymmetrical  $\pi$ -donors",  
G.C. Papavassiliou, S.Y. Yiannopoulos, J.S. Zambounis, K. Kobayashi and K. Umamoto,  
Chem. Lett. 7, 1279 (1987).
29. "Some new  $\pi$ -donors - Bis(propylene-dithio) tetrathiafulvalene, 4,5-Bis (alkylthio)-1,2-  
dithiolium tTetrafluoroborates and similar compounds",  
G.C. Papavassiliou, J.S. Zambounis and S.Y. Yiannopoulos,  
Chem. Scripta 27, 261 (1987).

30. "Bis(Pyrazino)tetrathiafulvalene and similar  $\pi$ -donors",  
G.C. Papavassiliou, S.Y. Yiannopoulos and J.S. Zambounis,  
Chem. Scripta 27, 265 (1987).
31. "Electrical properties of  $\alpha$ -(PEDTTTF)<sub>2</sub>BF<sub>4</sub> and  $\alpha$ -(PEDTTTF)<sub>2</sub>IBr<sub>2</sub>",  
G.C. Papavassiliou, A.E. Underhill, B. Kaye, H.P. Geserich, A. Terzis, S. Yiannopoulos  
Mater. Sci. 13, 185 (1987).
32. "Synthesis and structural studies of novel cadmium germanate glasses",  
G.D. Chryssikos and E.I. Kamitsos,  
Solid State Commun. 63, 611 (1987).
33. "Electrical-conduction in cadmium germanate glasses",  
G.D. Chryssikos, E.I. Kamitsos and J. Swiatek,  
Solid State Commun. 63, 615 (1987).
34. "A Raman investigation of cadmium borate and borogermanate glasses",  
G.D. Chryssikos, E.I. Kamitsos and W.M. Risen,  
J. Non-Cryst. Solids 93, 155 (1987).
35. "Laser-Raman and infrared spectroscopic studies of protein conformation in the eggshell  
of the fish salmo-gairdneri",  
S.J. Hamodrakas, E.I. Kamitsos and P.G. Papadopoulou,  
Bioch. Biophys. Acta 913, 163 (1987).
36. "Vibrational-spectra of magnesium-sodium-borate glasses . 1. Far-infrared investigation  
of the cation-site interactions",  
E.I. Kamitsos, G.D. Chryssikos and M.A. Karakassides,  
J. Phys. Chem. 91, 1067 (1987).
37. "Vibrational-spectra of magnesium-sodium-borate glasses. 2. Raman and midinfrared  
investigation of the network structure",  
E.I. Kamitsos, M.A. Karakassides and G.D. Chryssikos,  
J. Phys. Chem. 91, 1073 (1987).
38. "Cation network interactions in binary alkali-metal borate glasses - a far-infrared study",  
E.I. Kamitsos, M.A. Karakassides and G.D. Chryssikos,  
J. Phys. Chem. 91, 5807 (1987).
39. "A vibrational study of lithium borate glasses with high Li<sub>2</sub>O content",  
E.I. Kamitsos, M.A. Karakassides and G.D. Chryssikos,  
Phys. Chem. Glasses 28, 203 (1987).
40. "Study of the 3s Rydberg state of pyrimidine by multiphoton ionization spectroscopy",  
A. Bolovinos, S. Spyrou, P. Tsekeris and M. Kompitsas,  
J. Mol. Spect. 122, 269 (1987).

41. "Optically enhanced electron attachment",  
L.G. Christophorou, S.R. Hunter, L.A. Pinnaduwege, J.G. Carter, A.A. Christodoulides and S.M. Spyrou,  
Phys. Rev. Lett. 58, 1316 (1987).
42. "Picosecond phase conjugation in sodium vapor",  
J. Hebling, P. Simon, T. Mikropoulos and A.C. Cefalas,  
J. Modern Opt. 34, 1253 (1987).

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

1. "Pyrazinotetraheterofulvalenes and a few of their salts",  
G.C. Papavassiliou, S.Y. Yiannopoulos and J.S. Zambounis  
in "Organic and Inorganic Low Dimensional Crystalline Materials", Ed. P. Delhaes, Plenum  
(NATO SERIES) 168, 305 (1987).
2. "Conducting solids based on some new molecules with isothiazolo-rings",  
G.C. Papavassiliou, G.C. Mousdis, J.S. Zambounis and S.Y. Yiannopoulos  
in "Organic and Inorganic Low Dimensional Crystalline Materials", Ed. P. Delhaes, Plenum  
(NATO SERIES) 168, 301 (1987).
3. "New highly conducting systems",  
H.J. Keller, G.C. Papavassiliou et al,  
in "Organic and Inorganic Low-Dimensional Crystalline Materials", Edited by P. Delhaes and  
M. Drillon, Plenum (NATO SERIES) 168, 457 (1987).

## **3. Dissertations**

### **a. PhD theses**

1. "Nitrogen containing tetrathiafulvalens, selenium analogues and their conducting salts",  
S.Y. Yiannopoulos, supervisor G.C. Papavassiliou, University of Athens (1987).
2. "Conducting compounds resulting from multisulfur  $\pi$ -Donors and  $\pi$ -Acceptors",  
J.S. Zambounis, supervisor G.C. Papavassiliou, University of Athens (1987).

### **b. Honors theses**

1. "Control and stabilization of temperature in an oven with a PC",  
T. Bekas, supervisors A.C. Cefalas and G. Kourouklis, National Technical University of Athens,  
(1987).