

Full List of Publications 1970 – September 2013

Books edited

1. *Excited States in Quantum Chemistry* (NATO ASI series).
Eds. C. A. Nicolaides and D. R. Beck, Reidel (1979).
2. *The Concept of Probability*
Eds. E. I. Bitsakis and C. A. Nicolaides, Kluwer (1989).
3. *Atoms in Strong Fields* (NATO ASI Series)
Eds. C. A. Nicolaides, C. W. Clark and M. H. Nayfeh, Plenum (1990).
4. *Unstable States in the Continuous Spectrum. Part I. Analysis, Concepts, Methods and Results.*
Eds. C. A. Nicolaides and E. J. Brändas, *Advances in Quantum Chemistry*, vol. 60, (2010).
5. *Unstable States in the Continuous Spectrum. Part II. Interpretation, Theory and Applications.*
Eds. C. A. Nicolaides and E. J. Brändas, *Advances in Quantum Chemistry*, vol. 63, (2012).

Publications in scientific journals, books and proceedings

1. C. A. Nicolaides and O. Sinanoğlu, *Phys. Letts.* **33A**, 178 (1970).
"Theoretical transition probabilities for the carbon 3P - $^3D^o$ isoelectronic sequence"
2. C. A. Nicolaides and O. Sinanoğlu, *Nucl. Instrum. Methods* **90**, 133 (1970).
"Transition probabilities: new theory vs. recent experimental results".
3. C. A. Nicolaides and O. Sinanoğlu, *J. Physique* **31**, **C4**, 117 (1970).
"Transition probabilities from the non-closed shell many-electron theory of atomic structure".
4. C. A. Nicolaides, O. Sinanoğlu and P. Westhaus, *Phys. Rev. A* **4**, 1400 (1971).
"Theory of atomic structure including electron correlation: method for forbidden transition probabilities with results for [OI], [OII], [OIII], [NI], [NII], and [CI]".
5. C. A. Nicolaides and O. Sinanoğlu, in *"New Directions in Atomic Physics" eds.*

E. U. Condon and O. Sinanoğlu, Yale Press, (1971), p. 139.

"Atomic transition probabilities: New experimental and theoretical results and their comparison".

6. D. R. Beck, C. A. Nicolaides, W. Luken and O. Sinanoğlu, Int. J. Quantum Chem. **S 6**, 1 (1972).
"CI methods for the calculation of hyperfine structures, lifetimes, and molecular potential energy surfaces".
7. C. A. Nicolaides and O. Sinanoğlu, Solar Physics **29**, 17 (1973).
"A proposed correction to the carbon and oxygen solar abundances utilizing new and accurate transition probabilities of forbidden lines".
8. C. A. Nicolaides, D. R. Beck and O. Sinanoğlu, J. Phys. **B 6**, 62 (1973).
"Theoretical oscillator strengths for the beryllium 1S - $^1P^o$, $^1P^o$ - 1D and $^1P^o$ - 1S isoelectronic sequences".
9. C. A. Nicolaides and D. R. Beck, J. Phys. **B 6**, 535, (1973).
"Variational calculations of correlated wave-functions and energies for ground, low-lying as well as highly excited discrete states in many - electron atoms".
10. C. A. Nicolaides, Phys. Rev. **A 6**, 2078 (1972).
"Theoretical approach to the calculation of energies and widths of resonant (autoionizing) states in many-electron atoms".
11. C. A. Nicolaides, Chem. Phys. Letters **17**, 436 (1972).
"Theoretical lifetimes of the metastable $^5S_o^2$ states in atomic oxygen and carbon".
12. C. A. Nicolaides, Nuclear Inst. Methods **110**, 231 (1973).
"Theory of non-stationary states in many-electron systems".
13. C. A. Nicolaides, Chem. Phys. Letts. **19**, 69 (1973).
"Chemisorption and 1s binding energies of atomic oxygen and its negative ion".
14. C. A. Nicolaides, Chem. Phys. Letters **21**, 242 (1973).
"Oscillator strengths in first row neutral, singly and doubly ionized atoms: Comparison of recent theoretical and experimental values".
15. C. A. Nicolaides and D. R. Beck, Chem. Phys. Letters **27**, 269 (1974).
"On the theory of KLL Auger energies".
16. D. R. Beck and C. A. Nicolaides, Proc. 4th Inter. Conf. Atomic Physics, Heidelberg, July (1974), p.171.
"Excitation of atomic oxygen by fast electrons: generalized and optical oscillator strengths".

17. D. R. Beck, C. A. Nicolaides and J. Musher, Phys. Rev. A **10**, 1522, (1974).
"Calculation of the fine structure of the $\alpha^3\Sigma_u^+$ state of molecular helium".
18. D. R. Beck and C. A. Nicolaides, Phys. Fennica **9**, **S1**, 544, (1974).
"Accurate one-electron binding and Auger energies in many-electron atoms".
19. D. R. Beck and C. A. Nicolaides, Int. J. Quantum Chem. **S 8**, 17 (1974).
"The effect of electron correlation on atomic properties".
20. C. A. Nicolaides and D. R. Beck, Can. J. Phys. **53**, 1224 (1975).
"A comment on the effect of nonorthonormality on atomic transition probabilities".
21. C. A. Nicolaides and D. R. Beck, Chem. Phys. Letts. **35**, 202 (1975).
"On the length, velocity and acceleration expressions for the calculation of accurate oscillator strengths in many electron systems"
22. C. A. Nicolaides and D. R. Beck, in *Beam-Foil Spectroscopy*, eds. I. Sellin and D. Pegg, Plenum Press, (1976), p.77.
"On the possibility of observing nonexponential decays in autoionizing states".
23. D. R. Beck and C. A. Nicolaides, in *Beam-Foil Spectroscopy*, eds. I. Sellin and D. Pegg, Plenum Press, (1976), p.105.
"Anomalies in the fine and hyperfine structure of alkali isoelectronic sequences".
24. D. R. Beck and C. A. Nicolaides, in *Beam-Foil Spectroscopy*, eds. I. Sellin and D. Pegg, Plenum Press, (1976) p.115.
"Oscillator strengths in N, N⁺, O and O⁺ obtained from the first order theory of oscillator strengths".
25. C. A. Nicolaides and D. R. Beck, Chem. Phys. Letts. **36**, 79 (1975).
"Approach to the calculation of the important many-body effects of photoabsorption oscillator strengths".
26. D. R. Beck and C. A. Nicolaides, J. Electron Spectr. **8**, 249 (1976).
"Inner-electron binding energies and Auger energies in free atoms for use in X-ray spectroscopy".
27. D. R. Beck and C. A. Nicolaides, Quant. Spectr. Rad. Transfer **16**, 297 (1976).
"Theoretical oscillator strengths for NI and OI resonance transitions".
28. D. R. Beck and C. A. Nicolaides, Can. J. Phys. **54**, 689 (1976).
"Absorption oscillator strengths to autoionizing states in Li, N and F and their

isoelectronic sequences".

29. D. R. Beck and C. A. Nicolaides, Phys. Letts. **56A**, 265 (1976).
"Theoretical lifetimes of the N II $2s2p^3$ and $2s^22p3s^1P^o$ states obtained by applying FOTOS".
30. D. R. Beck and C. A. Nicolaides, Int. J. Quantum Chem. **S 10**, 119 (1976).
"Theory and calculation of excited state wavefunctions and properties".
31. C. A. Nicolaides and D. R. Beck, J. Phys. **B 9**, L259 (1976).
"On collective excitations in atoms and molecules".
32. C. A. Nicolaides and D. R. Beck, J. Chem. Phys. **66**, 1982 (1977).
"Electronic structure and oscillator strengths of highly excited states: Resonances in He^- , Li and Be".
33. C. A. Nicolaides and D. R. Beck, Phys. Rev. **A 15**, 1787, (1977).
"Comment on the mean-square deviation formula for autoionizing states".
34. C. A. Nicolaides and D. R. Beck, Phys. Rev. Letts. **38**, 683, 1037, (1977).
"On the possibility of observing nonexponential decays in autoionizing states".
35. C. A. Nicolaides and D. R. Beck, Phys. Letts. **60A**, 92 (1977).
"A variational method for calculating the energies and widths of resonances".
36. D. R. Beck and C. A. Nicolaides, Phys. Letts. **61A**, 227 (1977).
"High spin and mixed states in B I and B II".
37. D. R. Beck and C. A. Nicolaides, Chem. Phys. Letts. **49**, 357 (1977).
"Lower bounds to static polarizabilities".
38. D. R. Beck and C. A. Nicolaides, Chem. Phys. Letts. **48**, 135 (1977).
"On the calculation of induced electric and magnetic moments of atoms and molecules".
39. C. A. Nicolaides, Phys. Letts. **63A**, 209 (1977).
"The continuum and its effect on cascades in beam- foil spectroscopy".
40. C. A. Nicolaides and D. R. Beck, Chem. Phys. Letts. **53**, 87 (1978).
"Transfer of oscillator strength in regions of (avoided) crossings I: The two state approximation".
41. D. R. Beck and C. A. Nicolaides, Chem. Phys. Letts. **53**, 91 (1978).
"Transfer of oscillator strength in regions of avoided crossings. II: Atomic spectra for non-integer values of Z. Application to the NI $4S^o - 4P$ sequence".

42. C. A. Nicolaides and D. R. Beck, Phys. Letts. **65A**, 11 (1978).
"The variational calculation of energies and widths of resonances".
43. D. R. Beck and C. A. Nicolaides, Phys. Letts. **65A**, 293 (1978).
"Transition probabilities for the photoexcitation of Mg- and Zn- like molybdenum ions".
44. C. A. Nicolaides and D. R. Beck, Phys. Rev. A **17**, 2116 (1978).
"Comment on the lifetime of the Li $1s2p^2\ ^2P$ state: How probable is radiative autoionization?".
45. C. A. Nicolaides and D. R. Beck, Phys. Rev. A **18**, 1307 (1978).
"Comment on the Luken-Sinanoğlu paper 'Theory of atomic structure including electron correlation V. Excited states not lowest of their symmetry and oscillator strengths in neutral and singly ionized atoms' ".
46. C. A. Nicolaides and D. R. Beck, Int. J. Quantum Chem. **14**, 457 (1978).
"Time dependence, complex scaling and the calculation of resonances in many-electron systems".
47. D. R. Beck and C. A. Nicolaides, in *"Excited States in Quantum Chemistry"*
eds. C. A. Nicolaides and D. R. Beck, Reidel, (1979), p. 105.
"Theory of the electronic structure of excited states in small systems with numerical applications to atomic states".
48. C. A. Nicolaides and D. R. Beck, in *"Excited States in Quantum Chemistry"*
eds. C. A. Nicolaides and D. R. Beck, Reidel, (1979), p. 143.
"Many-body theory of photoabsorption in atoms and molecules".
49. D. R. Beck and C. A. Nicolaides, in *"Excited States in Quantum Chemistry"*
eds. C. A. Nicolaides and D. R. Beck, Reidel, (1979), p. 329.
"Theory of one-electron binding energies including correlation, relativistic and radiative effects: Application to free atoms and metals".
50. C. A. Nicolaides and D. R. Beck, in *"Excited States in Quantum Chemistry"*,
eds. C. A. Nicolaides and D. R. Beck, Reidel, (1979), p. 383.
"Theory of atomic and molecular nonstationary states within the coordinate rotation method".
51. D. R. Beck and C. A. Nicolaides, Chem. Phys. Letts. **59**, 525 (1978).
"How many bound states do H and H^- have?".
52. G. Theodorakopoulos, C. A. Nicolaides and D. R. Beck, Int. J. Quantum Chem.
S 13, 671 (1979).
"One electron binding and Auger energies of Sulfur in atomic and molecular states".

53. C. A. Nicolaides and G. Theodorakopoulos, Int. J. Quantum Chem. **S 14**, 315 (1980).
"FOTOS applied to molecules: Oscillator strengths in H₂O".
54. D. R. Beck and C. A. Nicolaides, Int. J. Quantum Chem. **S 14**, 323 (1980).
"On the theoretical interpretation and calculation of inner-electron photoemission spectra in atoms and solids".
55. C. A. Nicolaides and Y. Komninos, Chem. Phys. Letts. **80**, 463 (1981).
"Possibility for VUV and X-ray tunable atomic lasers".
56. C. A. Nicolaides, Y. Komninos and D. R. Beck, Chim. Chron. (New Series) **10**, 35 (1981).
"Many-electron theory of discrete-discrete and discrete-continuum transition rates for systems with symmetry".
57. Y. Komninos and C. A. Nicolaides, Chem. Phys. Letts. **78**, 347 (1981).
"The wavefunction of nonstationary states in terms of complex coordinates and a related variational principle".
58. C. A. Nicolaides, Y. Komninos and Th. Mercouris, Phys. Letts. **84A**, 421 (1981).
"The width of He 2s2p ¹P^o from a variational calculation using complex coordinates".
59. C. A. Nicolaides, Y. Komninos and D. R. Beck, Phys. Rev. A **24**, 1103 (1981).
"Bound states and decay mechanisms of He⁻".
60. C. A. Nicolaides, Y. Komninos and Th. Mercouris, Int. J. Quantum Chem. **S 15**, 355 (1981).
"Theory and calculation of resonances using complex coordinates".
61. D. R. Beck, C. A. Nicolaides and G. Aspromallis, Phys. Rev. A **24**, 3552 (1981).
"The spectrum of Be⁻".
62. C. A. Nicolaides, M. Papadopoulos and J. Waite, Theor.Chim. Acta **61**, 427 (1982).
"Calculations of induced moments in large molecules I. Polarizabilities and hyperpolarizabilities in the alkanes".
63. M. Papadopoulos, J. Waite and C. A. Nicolaides, J. Chem. Phys. **77**, 2527 (1982).
"Calculations of induced moments in large molecules II. Polarizability and second hyperpolarizability in some aromatics".

64. J. Waite, M. Papadopoulos and C. A. Nicolaides, J. Chem. Phys. **77**, 2536 (1982).
"Calculations of induced moments in large molecules III. Polarizability and second hyperpolarizability in polyenes".
65. D. R. Beck and C. A. Nicolaides, Phys. Rev. A **26**, 857 (1982).
"Specific correlation effects in inner-electron photoelectron spectroscopy".
66. A. N. Andriotis and C. A. Nicolaides, Surface Sci. **116**, 513 (1982).
"Variations of the surface dipole moment due to anisotropy and chemisorption".
67. C. A. Nicolaides and A. N. Andriotis, Solid State Commun. **44**, 99 (1982).
"Inner electron binding energies of chemisorbed atoms on metal surface".
68. G. Theodorakopoulos, C. A. Nicolaides, R. J. Buenker and S. D. Peyerimhoff, Chem. Phys. Letts. **89**, 164 (1982).
"Potential energy surfaces for the photodissociation $H_2O \rightarrow O^1D_g + H_2^1\Sigma_g^+$ ".
69. C. A. Nicolaides and E. Adamides, Phys. Rev. A **27**, 1691 (1983).
"Widths of autoionizing states of He from a variational calculation using complex coordinates".
70. C. A. Nicolaides and A. N. Andriotis, Int. J. Quantum Chem. **23**, 561 (1983).
"Photoelectron spectroscopy of chemisorbed atoms".
71. Y. Komninos, G. Aspromallis and C. A. Nicolaides, Phys. Rev. A **27**, 1865 (1983).
"Resonance scattering theory: application to the broad $He^- 1s2s2p^2P^o$ resonance".
72. C. A. Nicolaides, Y. Komninos and D. R. Beck, Phys. Rev. A **27**, 3044 (1983).
"The K-shell binding energy of Be and its fluorescence yield".
73. S. Tiwary and C. A. Nicolaides, Chem. Phys. Letts. **97**, 283 (1983).
"Minima and maxima in the generalized oscillator strengths for the lithium isoelectronic sequence".
74. C. A. Nicolaides and G. Aspromallis, J. Phys. **B 16**, L251 (1983).
"Theoretical autoionization rates of the $1s2p^2^2D$ and $1s2s2p^2P^o$ states of Li".
75. C. A. Nicolaides, Chem. Phys. Letts. **101**, 435 (1983).
"Hartree-Fock transition theory and multielectron transitions in atoms and molecules".
76. D. R. Beck and C. A. Nicolaides, Phys. Rev. A **28**, 3112 (1983).

- "Lifetime and hyperfine structure of Li^- excited states"*.
77. G. Aspromallis, C. A. Nicolaides and D. R. Beck, Phys. Rev. A **28**, 1879 (1983).
"Probabilities for transition processes crucial to Li lasers".
78. S. Farantos, G. Theodorakopoulos and C. A. Nicolaides, Chem. Phys. Letts. **100**, 263 (1983).
"A non van der Waals minimum of the He^1S and $H_2 B^1\Sigma_u^+$ excited surface".
79. Y. Komninos and C. A. Nicolaides, Phys. Scripta **28**, 472 (1983).
"Decay modes and lifetimes of doubly excited states in He".
80. C. A. Nicolaides, IEEE, J. Quantum Electr. **QE-19**, 1781 (1983).
"Radiative autoionization: A proposal for the construction of short wavelength lasers".
81. D. R. Beck and C. A. Nicolaides, J. Phys. **B 16**, L627 (1983).
"Electric quadrupole transition probabilities for the lowest 1D metastable state in Ca and Sr".
82. C. A. Nicolaides, J. Theodorakopoulos and Y. Petsalakis, J. Chem. Phys. **80**, 1705 (1984).
"Theory of chemical reactions of vibronically excited $H_2 B^1\Sigma_u^+$. I: Prediction of a strongly bound H_4 excited state".
83. C. A. Nicolaides and A. Zdetsis, J. Chem. Phys. **80**, 1900 (1984).
"Theory of chemical reactions of vibronically excited $H_2 B^1\Sigma_u^+$. II: Noble gas dihydrides".
84. C. A. Nicolaides, in "Advanced Theories and Computational Approaches to the Electronic Structure of Molecules", ed. C. E. Dykstra, Reidel, (1984), p. 161.
"State-specific theory of electron correlation in excited states".
85. C. A. Nicolaides, A. Zdetsis and A. Andriotis, Solid State Comm. **50**, 857 (1984).
"State-specific many-electron theory of core levels in metals: The 1s binding energy of Be metal".
86. G. Aspromallis and C. A. Nicolaides, J. Phys. **B 17**, L249 (1984).
"Autoionization widths of the doubly excited states of Be^{++} ".
87. C. A. Nicolaides, I. D. Petsalakis and G. Theodorakopoulos, J. Chem. Phys. **81**, 748 (1984).

"Theory of chemical reactions of vibronically excited $H_2 B^1\Sigma_u^+$. III: Formation of bound excited states of the $(H_2)_2$, $(H_2)_3$, and $(H_2)_5$ clusters".

88. G. Aspromallis, Y. Komninos and C. A. Nicolaides, J. Phys. **B 17**, L151 (1984).
"Electron correlation and relativistic effects of the energies and widths of doubly excited states of He".
89. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 17**, 4127 (1984).
"Localized and asymptotic electron correlation in autoionizing states in terms of complex coordinates".
90. C.A.Nicolaides, Th.Mercouris and Y.Komninos, Int. J. Quantum Chem. **26**, 1017 (1984).
"Many-electron theory of autoionizing states using complex coordinates. The position and the partial and total widths of the $Ne^+ 1s$ hole state".
91. A. N. Andriotis and C. A. Nicolaides, Solid State Comm. **51**, 251 (1984).
"Interaction of Argon with the Al(100) surface".
92. I. D. Petsalakis, G. Theodorakopoulos, C. A. Nicolaides and R. J. Buenker, J. Chem. Phys. **81**, 3161 (1984).
"Non-orthonormal CI for molecular excited states I: The sudden polarization effect in 90° twisted ethylene".
93. S. N. Tiwary and C. A. Nicolaides, Physica **125 C**, 379 (1984).
"Generalized oscillator strengths and photoionization of alkali-metal atoms".
94. D. R. Beck and C. A. Nicolaides, Int. J. Quantum Chem. **S 18**, 467 (1984).
"Fine and hyperfine structure of the two lowest bound states of Be^- and their first two ionization thresholds".
95. I. D. Petsalakis, G. Theodorakopoulos, C. A. Nicolaides and R. J. Buenker, J. Chem. Phys. **81**, 5952 (1984).
"Non-orthonormal CI for molecular excited states II. The zwitterionic states of terminally twisted butadiene".
96. G. Theodorakopoulos, I. D. Petsalakis, C. A. Nicolaides and R. J. Buenker, J. Chem. Phys. **82**, 912 (1985).
"The $X^1A_1 \rightarrow A^1B_1$ transition moment of H_2O using state-specific configuration -interaction wave-functions".
97. G. Aspromallis, C. A. Nicolaides and Y. Komninos, J. Phys. **B 18**, L545 (1985).
"Multichannel relativistic autoionization of negative ions: the $1s2s2p^3\ ^6S^o_{5/2}$ metastable state of Be^- ".

98. G. Theodorakopoulos, I. D. Petsalakis, C. A. Nicolaides and R. J. Buenker, Chem. Phys. **100**, 331 (1985).
"Configuration interaction study of the oscillator strengths for the $B^1A_1 - X^1A_1$ and $D^1A_1 - X^1A_1$ transitions of the water molecule".
99. C. A. Nicolaides and Th. Mercouris, Phys. Rev. A **32**, 3247 (1985).
"Partial widths and interchannel coupling in autoionizing states in terms of complex eigenvalues and complex coordinates".
100. A. C. Cefalas, C. S. Skordoulis, M. Kompitsas and C. A. Nicolaides, Opt. Comm. **55**, 423 (1985).
"Gain measurements at 157nm in an F_2 pulsed discharge molecular laser".
101. G. Aspromallis and C. A. Nicolaides, J. Phys. B **19**, L13 (1986).
"Relativistic and Coulomb autoionization in low-lying excited states of fluorine".
102. Y. Komninos and C. A. Nicolaides, J. Phys. B **19**, 1701 (1986).
"The Wannier two-electron ionization ladder in many-electron systems: The He $^1P^o$ doubly excited states".
103. G. Aspromallis, C. A. Nicolaides and D. R. Beck, J. Phys. B **19**, 1713 (1986).
"Relativistic autoionization of bound states of negative ions: Be^- ".
104. G. Theodorakopoulos, I. D. Petsalakis and C.A.Nicolaides, Int. J. Quantum Chem. **29**, 399 (1986).
"A method for the calculation of transition moments between electronic states of molecules using a different one-electron basis set for each state".
105. Y. Komninos and C. A. Nicolaides, Phys. Rev. A **34**, 1995 (1986).
"Many-electron approach to atomic photoionization: Rydberg series of resonances and partial photoionization cross sections in Helium, around the $n=2$ threshold".
106. D. R. Beck and C. A. Nicolaides, Phys. Rev. A **33**, 3885 (1986).
"Theory of Auger energies in free atoms: Application to the alkaline earths".
107. A.C.Cefalas, C. Scordoulis and C. A. Nicolaides, Optics Comm. **60**, 49 (1986).
"Superfluorescent laser action around 495 nm in the blue-green band of the mercury trimer Hg_3 ".
108. Y. Komninos, N. Makri and C. A. Nicolaides, Z. Phys. D **2**, 105 (1986).
"Electronic structure and the mechanism of autoionization for doubly excited states".
109. C. A. Nicolaides and G. Aspromallis, J. Phys. B **19**, L841 (1986).
"Mechanisms of configuration interaction in relativistic autoionization:"

threshold phenomena and the Li^4P_J levels".

110. C. A. Nicolaides, in *Giant Resonances in Atoms, Molecules and Solids*, eds. J. P. Connerade, J. M. Esteve and R. C. Karnatak, Reidel (1987), p. 213. *"The state-specific theory of atomic structure and aspects of the dynamics of photoabsorption"*.
111. C. A. Nicolaides and Y. Komninos, Phys. Rev. **A 35**, 999 (1987). *"The Wannier two-electron ionization ladder of $^1P^o$ symmetry in H, He and Li^+ "*.
112. G. Theodorakopoulos, I. D. Petsalakis and C. A. Nicolaides, J. Molec. Struct. **149**, 23 (1987). *"Potential energy hypersurfaces of H_4 in the ground and the first two singlet excited electronic states"*.
113. A. N. Andriotis and C. A. Nicolaides, Phys. Rev. **B 35**, 2583 (1987). *"Dressed atom approach to embedding and physisorption in metals"*.
114. Th. Mercouris and C. A. Nicolaides, Z. Phys. **D 5**, 1 (1987). *"Solution of the complex eigenvalue Schrodinger equation for the Rydberg series of inner hole excited autoionizing states. The Be $1s2s^2np$ ($n = 2-5$) $^3P^o$ and $^1P^o$ series"*.
115. A. Metropoulos and C. A. Nicolaides, Z. Phys. **D 5**, 175 (1987). *"Towards understanding the stability of the $H^*_4(C_{3v})$ cluster"*.
116. Y. Komninos and C. A. Nicolaides, Z. Phys. **D 4**, 301 (1987). *"Multi-channel reaction matrix theory and configuration-interaction in the discrete and in the continuous spectrum. Inclusion of closed channels and derivation of quantum defect theory"*.
117. A. Metropoulos, C. A. Nicolaides and R. J. Buenker, Chem. Phys. **114**, 1 (1987). *"Adiabatic calculations of the $^2\Sigma_g^+$ excited states of He_2^+ "*.
118. G. Theodorakopoulos, I. D. Petsalakis, C. A. Nicolaides and R. J. Buenker, Chem. Phys. **112**, 319 (1987). *"Nonorthonormal basis calculations of the transition moment for the Philips system ($A^1\Pi_u - X^1\Sigma_g^+$) in C_2 . Theoretical lifetime of the $A^1\Pi_u$ state"*.
119. G. Theodorakopoulos, I. D. Petsalakis, C. A. Nicolaides and R. J. Buenker, J. Phys. **B 20**, 2339 (1987). *"Theoretical dipole transition moments for the transitions to the ground state $X^2\Sigma^+$ from the $B^2\Pi$, $C^2\Sigma^+$, $D^2\Sigma^+$ and $E^2\Pi$ states and for the $B^2\Pi - A^2\Sigma^+$ system"*

in HeH".

120. C. A. Nicolaides and Th. Mercouris, Phys. Rev. **A 36**, 390 (1987).
"Partial autoionization widths of inner hole states of OV from the complex-eigenvalue Schrodinger equation".
121. I. D. Petsalakis, G. Theodorakopoulos, C. A. Nicolaides and R. J. Buenker, J. Phys. **B 20**, 5959 (1987).
"Theoretical dipole transition moments for transitions between bound electronic states and non-adiabatic coupling matrix elements between $^2\Sigma^+$ states of HeH".
122. C. A. Nicolaides, N. Makri and Y. Komninos, J. Phys. **B 20**, 4963 (1987).
"Wavefunctions and autoionization of doubly excited states in momentum space".
123. Y. Komninos, M. Chrysos and C. A. Nicolaides, J. Phys. **B 20**, L791 (1987).
"The two-electron ionization ladder for He ^{-2}S and H ^{-1}S ".
124. A. D. Zdetsis and C. A. Nicolaides, J. Physique **C 9**, 1071 (1987)
"Calculation of inner core electron binding energies in metals".
125. C. A. Nicolaides, M. Chrysos and Y. Komninos, J. Phys. **B 21**, L73 (1988).
"The geometry of the Wannier two-electron ionization ladder and the corresponding spectrum".
126. A. Metropoulos and C. A. Nicolaides, J. Phys. **B 21**, L77 (1988).
"On the stability of excited tetrahydrogen".
127. C. A. Nicolaides and G. Aspromallis, Physica Scripta **38**, 55 (1988).
"The threshold effect on the lifetime of relativistically autoionizing metastable states: The doubly excited spectrum of the fictitious $Z = 2.05$ Atom".
128. A. C. Cefalas, T. Mikropoulos, P. Simon, J. Hebling and C. A. Nicolaides, Appl. Phys. **B 46**, 363 (1988).
"Picosecond phase-conjugation by degenerate four-wave mixing in sodium vapor".
129. E. I. Kamitsos, A.C. Cefalas, S. Spyrou and C. A. Nicolaides, Synthetic Metals **27**, B581 (1988) .
"Excimer laser induced photoablation of charge-transfer thin film materials".
130. Y. Komninos, M. Chrysos and C. A. Nicolaides, Phys. Rev. **A 38**, 3182 (1988).
"The hyper-ridge of triply excited states".
131. C. A. Nicolaides, P. Valtazanos and N. C. Bacalis, Chem. Phys. Lett. **151**, 22 (1988).
"Excited molecules and clusters in solid media. Hydrogen and tetrahydrogen"

- in ionic crystals*".
132. J. N. Silverman and C. A. Nicolaides, Chem. Phys. Lett. **153**, 61 (1988).
"Complex Stark eigenvalues via analytic continuation of real high-order perturbation series".
 133. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 21**, L285 (1988).
"Polyelectronic theory of atoms in strong laser fields. CO₂-laser seven-photon ionization of H ".
 134. Κλ. Α. Νικολαιδης, *Οι επιστήμες στη Κοινωνία*, εκδ. Αιμ. Μεταξόπουλος, Gutenberg, Αθήνα (1988).
'Σύγχρονη Τεχνολογία και οι Κοινωνικές Επιπτώσεις της', σελ. 165.
Πρώτη δημοσίευση: *Οικονομικός Ταχυδρόμος*, 2 Οκτωβρίου 1986.
 135. C. A. Nicolaides, M. Chrysos and Y. Komninos, Phys. Rev. **A 39**, 1523 (1989).
"Li⁻ resonances: The two-electron ionization ladder of ¹S symmetry".
 136. C. A. Nicolaides, G. Aspromallis and D. R. Beck, J. Mol. Struct.(Theochem.) **199**, 283 (1989).
"Bound excited states of atomic negative ions".
 137. C. A. Nicolaides, J. Mol. Struct. (Theochem) **202**, 285 (1989).
"Chemically bound excited clusters".
 138. C. A. Nicolaides in *"Quantum Chemistry-Basic Aspects, Actual Trends"* ed. R. Carbo, Elsevier (1989), p. 343.
"State-specific theory of quantum chemistry",
 139. C. A. Nicolaides and Th. Mercouris, Chem. Phys.Lett. **159**, 45 (1989).
"Multiphoton ionization of negative ions in the presence of a dc-field. Application to Li⁻ ".
 140. C. A. Nicolaides, Chem. Phys. Lett. **161**, 547 (1989).
"Energy generation from volcanic ground states. Application to cold He₂⁺⁺".
 141. I. D. Petsalakis, A. Metropoulos, G. Theodorakopoulos and C. A. Nicolaides, Chem. Phys. Let. **158**, 229 (1989).
"An estimate of the lifetime of excited tetrahydrogen".
 142. H. M. Schmidt and C. A. Nicolaides, J. Phys. **B 22**, 1751 (1989).
"The slowly convergent s-d perturbation series for hydrogen in a magnetic field".
 143. P. Valtzanos, E. D. Simandiras and C. A. Nicolaides, Chem. Phys. Lett. **156**,

240 (1989).

"Structure and vibrational analysis of protonated hydrogen peroxide".

144. P. Camus, M. Kompitsas, S. Cohen, C. A. Nicolaides, M. Crance and P. Pillet, J. Phys. **B 22**, 445 (1989).
"Multiphoton single and double ionization of strontium in the range 532-541 nm".
145. M. Chrysos, Y. Komninos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 42**, 2634 (1990).
"Partial and total widths of the resonances of the H^1S two-electron ionization ladder".
146. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 23**, 2037 (1990).
"Laser ionization of H in the presence of a DC field".
147. C. A. Nicolaides, H. J. Gotsis, M. Chrysos and Y. Komninos, Chem. Phys. Lett. **168**, 570 (1990).
"Resonances and exterior complex scaling".
148. I. D. Petsalakis, Th. Mercouris, G. Theodorakopoulos and C. A. Nicolaides, J. Phys. **B 23**, L89 (1990).
"Predissociation resonances from the complex eigenvalue Schrödinger equation".
149. C. A. Nicolaides, Th. Mercouris and G. Aspromallis, J. Opt. Soc. Am. **B 7**, 494 (1990).
"Many-electron, many-photon theory of non-linear polarizabilities".
150. C. A. Nicolaides, M. Chrysos, and Y. Komninos, Phys. Rev. **A 41**, 5244 (1990).
"Geometry of the three-electron ionization ladder and its corresponding spectrum".
151. C. A. Nicolaides, M. Chrysos and P. Valtazanos, J. Phys. **B 23**, 791 (1990).
"Stability and physicochemical reactions of light dications".
152. C. A. Nicolaides and Y. Komninos, J. Phys. **B 23**, L571 (1990).
"Energy dependence of the partial widths of the Wannier two-electron ionization ladder".
153. C. A. Nicolaides and P. Valtazanos, Chem. Phys. Lett. **173**, 195 (1990).
"Inversion of molecular spectra by solid environments".
154. C. A. Nicolaides and P. Valtazanos, Chem. Phys. Lett. **174**, 489 (1990).
"Hydrogen complexes of Be_2^{++} ".

155. C. A. Nicolaides, Th. Mercouris and N. Piangos, J. Phys. **B 23**, L669 (1990).
"Dynamic polarizability and hyperpolarizability of H for frequencies below as well as above the ionization threshold".
156. C. A. Nicolaides, Y. Komninos, M. Chrysos and G. Aspromallis, in *"Atoms in Strong Fields"*, eds. C. A. Nicolaides, Ch. Clark and M. Nayfeh, Plenum Press, N.Y., (1990), p. 493.
"Properties of multiply excited states".
157. C. A. Nicolaides and Th. Mercouris, in *"Atoms in Strong Fields"*, eds. C. A. Nicolaides, Ch. Clark and M. Nayfeh, Plenum Press, N.Y., (1990), p.353.
"Many-electron, many-photon theory of atoms in strong fields".
158. J. N. Silverman and C. A. Nicolaides, in *"Atoms in Strong Fields"*, eds. C. A. Nicolaides et al, Plenum Press, N. Y. (1990), p. 309.
"Energies and widths of the ground and excited states of hydrogen in a dc-field via variationally-based large-order perturbation theory".
159. P. Camus, M. Kompitsas, S. Cohen, C. A. Nicolaides, M. Aymar, M. Crance and P. Pillet, in *"Atoms in Strong Fields"*, eds. C.A. Nicolaides et al, Plenum Press, N.Y., (1990), p. 485.
"Autoionizing 4dnf states and multiphoton ionization studies in Sr".
160. P. Valtazanos, N. C. Bacalis and C. A. Nicolaides, Chem. Phys. **144**, 363 (1990).
"Hydrogen molecule and tetrahydrogen cluster embedded in ionic crystals".
161. P. Valtazanos and C. A. Nicolaides, Chem. Phys. Lett. **172**, 254 (1990).
"Local minima of ground hypersurfaces. The cases of He₃²⁺ and of the BeH₂²⁺ nonclassical dihydrogen complex".
162. I. D. Petsalakis, Th. Mercouris, G. Theodorakopoulos and C. A. Nicolaides, J. Chem. Phys. **93**, 6642 (1990).
"Distributed complex Gaussian basis sets: A useful function space for the solution of predissociation problems by the complex eigenvalue Schrodinger equation. Application to the isotope effect of NeH, NeD".
163. M. Kompitsas, S. Cohen, C. A. Nicolaides, O. Robaux, M. Aymar and P. Camus, J. Phys. **B 23**, 2247 (1990).
"Observation and theoretical analysis of the odd J=3 autoionizing spectrum of Sr up to second threshold".
164. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 24**, L557 (1991).
"Computation of the widths of doubly excited states coupled by external AC or DC fields".

165. C. A. Nicolaides and P. Valtazanos, J. Mol. Struct.(Theochem) **234**, 483 (1991).
"The (H₂O)₂ cluster at a geometry of intramolecular charge transfer"*.
166. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 24**, L57 (1991).
"Above-threshold ionization in the presence of a DC-field. Application to H ".
167. C. A. Nicolaides and P. Valtazanos, Chem. Phys. Lett. **176**, 239 (1991).
"Chemical trapping of molecular hydrogen by BeO".
168. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 24**, L165 (1991).
"The meaning of "correlations" in the theory of multiphoton detachment".
169. C. A. Nicolaides and Th. Mercouris, Phys. Rev. **A 44**, 7827 (1991).
"Magnitude of static and dynamic polarizabilities of doubly excited states of negative ions: Applications of the second bound state of H ".
170. C. A. Nicolaides and G. Asproullis, Phys. Rev. **A 44**, 2217 (1991).
"Binding of an electron by He and Xe".
171. C. A. Nicolaides and P. Valtazanos, in *"Theoretical and Computational Models for Organic Chemistry"*, eds. S. J. Formosinho et al, Kluwer, Amsterdam, (1991) p. 355.
"Molecules with "volcanic" ground hypersurfaces. Structure, stability and reactivity".
172. I. D. Petsalakis, G. Theodorakopoulos, C. A. Nicolaides and R. J. Buenker, Chem. Phys. Lett. **185**, 359 (1991).
"Nearly-diabatic states by maximization of the non-orthonormal overlap between model-diabatic and MRD-CI wavefunctions".
173. I. D. Petsalakis, Th. Mercouris, G. Theodorakopoulos and C. A. Nicolaides, Chem. Phys. Lett. **182**, 561 (1991).
"Theory and ab-initio calculations of partial widths and interchannel coupling in predissociation diatomic states. Application to HeF".
174. A. Metropoulos and C. A. Nicolaides, Chem. Phys. Lett. **187**, 487 (1991).
"Excited ²Σ_u⁺ states of He₂⁺ and the formation of explosive He₂²⁺ ".
175. E. D. Simandiras and C. A. Nicolaides, Chem. Phys. Lett. **185**, 529 (1991).
"Nonclassical hydrogen complexes of the alkaline earths".
176. J. N. Silverman and C. A. Nicolaides, Chem. Phys. Lett. **184**, 321 (1991).
"Complex Stark eigenvalues for excited states of hydrogenic ions from analytic continuation or real variationally based large-order perturbation theory".

177. E. I. Kamitsos, G. D. Chryssikos and C. A. Nicolaides in *"Laser Applications in Basic Sciences, Engineering and Medicine"* ed. K. Siomos, Technical University of Crete, Hania, Greece (1991), p. 97.
"Use of lasers in the study of the glassy state".
178. C. A. Nicolaides, Phys. Rev. **A 46**, 690 (1992).
"Hole-projection, saddle points and localization in the theory of autoionizing states".
179. C. A. Nicolaides, in *"Applied Many-Body Methods in spectroscopy and electronic structure"*, ed. D. Mukherjee, Plenum Press, N. Y. (1992), p. 233.
"Theory and computation of nonstationary states of polyelectronic atoms and molecules".
180. C. A. Nicolaides and E. D. Simandiras, Chem. Phys. Lett. **196**, 213 (1992).
"Prediction of non-transition-metal hydrogen complexes".
181. I. D. Petsalakis, G. Theodorakopoulos and C. A. Nicolaides,
J. Chem. Phys. **97**, 7623 (1992).
"Adiabatic and quasiadiabatic $^2\Sigma^+$ states of BeH".
182. C. A. Nicolaides and S. I. Themelis, Phys. Rev. **A 45**, 349 (1992).
"Theory of the resonances of the LoSurdo-Stark effect".
183. Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 45**, 2116 (1992).
"Theory of multiphoton ionization tested on negative ions".
184. C. A. Nicolaides, J. Phys. **B 25**, L91 (1992); Corrigendum **B 25**, 2442 (1992).
"On the preparation and observation of the triply excited discrete state $He^- 2p^3 ^4S^o$ ".
185. C. A. Nicolaides and H. J. Gotsis, J. Phys. **B 25**, L171 (1992).
"On the calculation of the complex energies of resonances".
186. S. I. Themelis and C. A. Nicolaides, Phys. Rev. **A 46**, R21 (1992).
"Theory and computation of scalar and tensor polarizabilities and hyperpolarizabilities and of LoSurdo-Stark shifts in polyelectronic atoms".
187. M. Chrysos, G. Aspromallis, Y. Komninos and C. A. Nicolaides, Phys. Rev.
A 46, 5789 (1992).
"Partial widths of the $He^- ^2S$ two-electron ionization ladder resonances".
188. C. A. Nicolaides, N.C.Bacalis and Y.Komninos, Chem. Phys. Lett. **192**, 486
(1992).
"Theory for the direct construction of diabatic states and application to the $He_2^+ ^2\Sigma_g^+$ spectrum".

189. M. A. Dubinskii, A. C. Cefalas and C. A. Nicolaides, Optics Comm. **88**, 122 (1992).
“Solid state LaF₃: Nd³⁺ VUV laser pumped by a pulsed discharge F₂ molecular laser at 157 nm”.
190. N. C. Bacalis, Y. Komninos and C. A. Nicolaides, Phys. Rev. A **45**, 2701 (1992).
“State-specific theory and method for the computation of diatomic molecules: Application to He₂⁺⁺ ¹Σ_g⁺”.
191. M. Chrysos, Y. Komninos and C. A. Nicolaides, J. Phys. **B 25**, 1977 (1992).
“Partial widths of the resonances of the H ¹P^o two-electron ionization ladder”.
192. M. A. Dubinskii, A. C. Cefalas, E. Sarantopoulou, S. M. Spyrou, C. A. Nicolaides, R. Yu. Abdulsabirov, S. L. Korablwa and V. V. Semashko, J. Opt. Soc. Am. **B 9**, 1148 (1992).
“Efficient LaF₃:Nd³⁺ - based vacuum-ultraviolet laser at 172 nm”.
193. N. A. Piangos and C. A. Nicolaides, Phys. Rev. A **48**, 4142 (1993).
“Radiative lifetimes of triply excited states of the Li isoelectronic sequence”.
194. C. A. Nicolaides, N. A. Piangos and Y. Komninos, Phys. Rev. A **48**, 3578 (1993).
“Theory and computation of triply excited resonances: Application to states of He⁻”.
195. A. C. Cefalas, M. A. Dubinskii, E. Sarantopoulou, Ry. Abdularinov, S. R. Korableva, A. K. Naumov, V. V. Semasko and C. A. Nicolaides, Laser Chemistry **13**, 143 (1993).
“On the development of new VUV and UV solid-state laser sources for photochemical applications”.
196. C. A. Nicolaides, Th. Mercouris and I. D. Petsalakis, Chem. Phys. Letts. **212**, 685 (1993).
“Above and below threshold multiphoton dissociation of volcanic ground states. Application to BeH⁺⁺”.
197. P. Valtazanos and C. A. Nicolaides, J. Chem. Phys. **98**, 549 (1993).
“The OBeH₂ hypersurface: Local and global minima, transition states and reaction paths”.
198. G. Theodorakopoulos, I. D. Petsalakis and C. A. Nicolaides, Chem. Phys. Lett. **207**, 321 (1993).

“Diabatic potentials for the $1^1A''$ and $2^1A''$ states of H_2S ”.

199. Th. Mercouris, I. D. Petsalakis and C. A. Nicolaides, Chem. Phys. Lett. **208**, 197 (1993). *“Time-dependent laser-induced molecular formation from repulsive surfaces”*
200. C. A. Nicolaides and S. I. Themelis, J. Phys. **B 26**, L387 (1993).
“Doubly excited autoionizing states in a DC field. Widths, polarizabilities and hyperpolarizabilities of the He $2s^2\ ^1S$ and $2s2p\ ^3P^o$ states”.
201. C. A. Nicolaides and S. I. Themelis, J. Phys. **B 26**, 2217 (1993).
“The hyperpolarizability of Li $1s^22s\ ^2S$: a test case for advanced theories of electronic properties”.
202. C. A. Nicolaides, J. Phys. **B 26**, L291 (1993).
“Multielectron radiative transitions”.
203. M. Bylicki and C. A. Nicolaides, Phys. Rev. **A 48**, 3589 (1993).
“Computation of resonances by two methods involving the use of complex coordinates”.
204. Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 48**, 628 (1993).
“Quantitative study of multiphoton multiple ionization: Second-harmonic Nd: YAG laser ionization of the doubly excited $2p^2\ ^3P$ bound state of H”.
205. C. A. Nicolaides and S. I. Themelis, Phys. Rev. **A 47**, 3122 (1993).
“Theory and computation of electric-field-induced tunneling rates of polyelectronic atomic states”.
206. Y. Komninos, S. I. Themelis, M. Chrysos and C. A. Nicolaides, Int. J. Quantum Chem. **S 27**, 399 (1993).
“Properties of the two-electron ionization ladder and related good quantum numbers”.
207. S. I. Themelis and C. A. Nicolaides, Phys. Rev. **A 49**, 596 (1994).
“Partial widths with interchannel coupling to all orders for the H two-electron ionization ladder of 1D symmetry”.
208. S. I. Themelis and C. A. Nicolaides, Phys. Rev. **A 49**, 3089 (1994).
“dc-field tunneling of polyelectronic atoms and of negative ions: Computations based on models and on ab initio theory”.
209. E. Sarantopoulou, A. C. Cefalas, M. A. Dubinski, C. A. Nicolaides, R. Yu Abdulsabirov, S. L. Korableva, A. K. Naumov and V.U. Semashko, Opt. Comm. **107**, 104 (1994).
“VUV and UV fluorescence and absorption studies of Nd^{3+} and Ho^{3+} ions in

LiYF₄ single crystals".

210. S. I. Themelis and C. A. Nicolaides, Phys.Rev. **A 49**, 1618 (1994).
"Effect of interchannel coupling on the partial and total autoionization widths: Application to the $1s3s3p\ ^4P^o$ and $1s3p^2\ ^4P$ states for $Z = 2-5, 10$ ".
211. I.D. Petsalakis, G. Theodorakopoulos and C. A. Nicolaides, J. Chem. Phys. **100**, 5870 (1994).
"Quasidiabatic states for intramolecular charge transfer. Application to the protonation of NH_3 ".
212. E. D. Simandiras and C. A. Nicolaides, Chem. Phys. Letts. **223**, 233 (1994).
"Prediction and characterization of magnesium fluoride dimers and their nonclassical hydrogen complexes".
213. M. Bylicki, S.I.Themelis and C. A. Nicolaides, J. Phys. **B 27**, 2741 (1994).
"State-specific theory and computation of a polyelectronic atomic state in a magnetic field. Application to doubly excited states of H".
214. C.A. Nicolaides, Th. Mercouris, Y. Komninos and I. D. Petsalakis, Int. J. Quantum Chem. **51**, 529 (1994).
"Many-electron, many-photon theory of nonstationary states".
215. Th. Mercouris, I. D. Petsalakis, P. Valtazanos and C. A. Nicolaides, J. Phys. **B 27**, L519 (1994).
"Time-dependent multiphoton absorption by NO^{++} . Above and below threshold dissociation and the effect of the first excited surface".
216. Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 50**, 3782 (1994).
"Electron correlation, geometry and energy spectrum of quadruply excited states".
217. Th. Mercouris, Y. Komninos, S. Dionissopoulou and C. A. Nicolaides, Phys. Rev. **A 50**, 4109 (1994).
"Computation of strong-field multiphoton processes in polyelectronic atoms. State-specific method and application to H and Li".
218. C.A. Nicolaides, Anales de Fisica **90**, 214 (1994).
"Theory and computation of nonstationary states of polyelectronic atoms and molecules".
219. E. Sarantopoulou, A.C. Cefalas, M. A. Dubinskii, Z. Kollia, C. A. Nicolaides, R. Yu. Abdusabiorov, S. L. Korableva, A. K. Naumov and V.V. Semashko, J. Mod. Opt. **41**, 767 (1994).
"VUV and UV fluorescence and absorption studies of Tb^{3+} and Tm^{3+} trivalent ions in $Li_y F_4$ single crystal hosts".

220. E. Sarantopoulou, A.C. Cefalas, M. A. Dubinskii, C. A. Nicolaides, R. Yu. Abdusabiorov, S. L. Korableva, A. K. Naumov and V.V. Semashko, *Appl. Phys. Lett.* **65**, 813 (1994).
“Vacuum Ultraviolet and Ultraviolet fluorescence and absorption studies of Er^{3+} doped LiLu F_4 single crystals”.
221. E. Sarantopoulou, A. C. Cefalas, M. A. Dubinskii, C. A. Nicolaides, R. Yu. Abdusabiorov, S. L. Korableva, A. K. Naumov and V.V. Semashko, *Opt. Lett.* **19**, 499 (1994).
“VUV and UV fluorescence and absorption studies of Pr^{3+} doped LiLu F_4 single crystals”.
222. I. D. Petsalakis, Th. Mercouris, C. A. Nicolaides, *Chem. Phys.* **189**, 615 (1994).
“Computation of time-dependent transition probabilities in excimer molecules induced by femtosecond laser pulses”.
223. M. Bylicki and C.A. Nicolaides, *Phys. Rev. A* **51**, 204 (1995).
“Energies and widths of triply excited $n = 2$ intrashell autoionizing states of He^- ”.
224. S. I. Themelis and C. A. Nicolaides, *Phys. Rev. A* **51**, 2801 (1995).
“Field-induced tunneling rates, polarizabilities and hyperpolarizabilities for low-lying excited states of Li and Na”.
225. S. Dionissopoulou, Th. Mercouris, A. Lyras, Y. Komninos and C.A. Nicolaides, *Phys. Rev. A* **51**, 3104 (1995).
“High-order harmonic generation and above-threshold ionization in H: Calculations using expansions over field-free state-specific wave functions”.
226. Ch. Sinanis, Y. Komninos and C. A. Nicolaides, *Phys. Rev. A* **51**, R2672 (1995).
“Asymmetry parameter and total cross section for the photodetachment of the metastable $Be^- 1s^2 2s 2p^2 \ ^4P$ state”.
227. S. Dionissopoulou, A. Lyras, Th. Mercouris and C. A. Nicolaides, *J. Phys.* **B 28** L109 (1995); Corrigendum, *J. Phys.* **B 28**, 4005 (1995).
“High-order above threshold ionization spectrum of hydrogen and photoelectron angular distributions”.
228. S. I. Themelis and C. A. Nicolaides, *J. Phys.* **B 28**, L379 (1995).
“Energies, widths and l-dependence of the $H \ ^3P$ and $He^- \ ^4P$ TEIL states”.
229. N. C. Bacalis, Y. Komninos and C. A. Nicolaides, *Chem. Phys. Letts.* **240**, 172 (1995).
“Toward the understanding of the He_2^- excited states”.

230. Z. Kollia , E. Sarantopoulou , A. C. Cefalas , C. A. Nicolaides, A. K. Naumov , V.V. Semashko , R. Yu. Abdusabiorov , S.L. Korableva and M. A. Dubinskii. *J. Opt. Soc. Am. B* **12**, 782 (1995).
“VUV interconfigurational $4f^3 - 4f^2 5d$ absorption and emission studies of the Nd^{3+} ion in KYF, YF, and YLF crystal hosts”
231. A. Vegiri and C. A. Nicolaides, *J. Phys. B* **28**, 2927 (1995).
“Predissociation of the $A^2\Sigma^+$, $C^2\Sigma^+$ and $D^2\Sigma^+$ levels of 4HeH from a multistate close-coupling scattering approach”.
232. S. I. Themelis and C. A. Nicolaides, *Phys. Rev. A* **52**, 2439 (1995).
“Dipole polarizabilities and hyperpolarizabilities of excited valence states of Be”.
233. Y. Komninos, G. Aspromallis and C. A. Nicolaides, *J. Phys. B* **28**, 2049 (1995).
“Theory and computation of perturbed spectra. Application to the Al^{2D} relativistic $J = 5/2, 3/2$ spectrum.”
234. Ch. Sinanis, G. Aspromallis and C. A. Nicolaides , *J. Phys. B* **28**, L423 (1995).
“Electron correlation in the Auger spectra of the $Ne^+ K2s2p^5 (^3,^1P^o)3p^2S$ satellites”.
235. C. E. Theodosiou, L. J. Curtis and C. A. Nicolaides, *Phys. Rev. A* **52**, 3677 (1995).
“Determination of dipole polarizabilities for Mg^+ and Ca^+ ions from precision lifetime measurements and transition- moment cancellations”.
236. C. A. Nicolaides, *Int. J. Quantum Chem.* **60**, 119 (1996).
“The state-specific approach to the solution of problems of electronic structure and dynamics involving excited states”.
237. C. A. Nicolaides and E. D. Simandiras, *Comments Inorg. Chem.* **18**, 65 (1996).
“Prediction of nonclassical hydrogen complexes of nontransition metals”.
238. C. A. Nicolaides, S. Dionissopoulou and Th. Mercouris, *J. Phys. B* **29**, 231 (1996).
“Time-dependent multiphoton ionization from the $He 1s2s ^1S$ metastable state”.
239. C. A. Nicolaides, Th. Mercouris and S. I. Themelis , in *“New Methods in Quantum Theory”* eds. C. A. Tsipis, V. S. Popov, D. R. Hershbach and J. S. Avery, Kluwer, Dordrecht, 1996, p.135.
“Multielectron, multichannel problems and their solution to all-orders via the diagonalization of state-specific complex eigenvalue Schrödinger equations”.
240. C. A. Nicolaides and Th. Mercouris, *J. Phys. B* **29**, 1151 (1996).

“On the violation of the exponential decay law in atomic physics: Ab initio calculation of the time-dependence of the $He^- 1s2p^2\ ^4P$ nonstationary state”.

241. Th. Mercouris, Y. Komninos, S. Dionissopoulou and C. A. Nicolaides,
J. Phys. **B 29**, L13 (1996).
“Effect on observables of the singularity in the multiphoton free-free dipole matrix elements”.
242. G. Aspromallis, Ch. Sinanis and C. A. Nicolaides, J. Phys. **B 29**, L1 (1996).
“The lifetimes of the fine structure levels of the $Be^- 1s^2 2s2p^2\ ^4P$ metastable state”.
243. Y. Komninos, G. Aspromallis and C. A. Nicolaides, J. Phys. **B 29**, L193 (1996).
“The $^2F^o$ Rydberg series and low-lying autoionizing states of Al”.
244. S. Dionissopoulou, Th. Mercouris and C. A. Nicolaides, J. Phys. **B 29**,
4787 (1996).
“Ionization rates and harmonic generation for H interacting with laser pulses of $\lambda=1064$ nm and peak intensities in the range 2×10^{13} W/cm² - 2×10^{14} W/cm²”.
245. V. Constantoudis and C. A. Nicolaides, Phys. Rev. **A 55**, 1325 (1997).
“Regular and chaotic multiphoton dissociation”.
246. Y. Komninos and C. A. Nicolaides, J. Phys. **B 30**, L237 (1997).
“Theory and computation of the profile of the free-free transition probability between autoionizing (resonant) states”.
247. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 30**, 811 (1997).
“Time dependence and properties of nonstationary states in the continuous spectrum of atoms”.
248. C. A. Nicolaides, C. Haritos and Th. Mercouris, Phys. Rev. **A 55**, 2830 (1997).
“Theory and computation of electron correlation in the continuous spectrum: Double photoionization cross-section of H and He near and far from threshold”.
249. Th. Mercouris, Y. Komninos, S. Dionissopoulou and C. A. Nicolaides,
J. Phys. **B 30**, 2133 (1997).
“The electric dipole approximation and the calculation of free-free transition matrix elements in multiphoton processes”.
250. Th. Mercouris, S. Dionissopoulou and C. A. Nicolaides, J. Phys. **B 30**, 4751
(1997).
“Multiphoton response of He to short laser pulses of wavelength 248 nm and intensities in the range 10^{14} - 10^{16} W/cm²”.

251. S. Dionissopoulou, Th. Mercouris, A. Lyras and C. A. Nicolaides,
Phys.Rev. **A 55**, 4397 (1997).
“Strong laser-field effects in hydrogen: High-order above-threshold ionization and photoelectron angular distribution”.
252. C. A. Nicolaides, S. Dionissopoulou and Th.Mercouris, J. Phys. **B 31**, L1
(1998).
“The significance of electron correlation and of state symmetries in the interaction of strong laser pulses of 5 eV with He”.
253. N. A. Piangos and C. A. Nicolaides, J. Phys. **B 31**, L147 (1998).
“Very highly excited bound states of atomic negative ions having all their electrons with unpaired spins”.
254. C. A. Nicolaides and Y. Komninos, Int. J. Quantum Chem. **67**, 321 (1998).
“Geometrically active atomic states and the formation of molecules in their normal shape”.
255. Ch. Sinanis, Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 57**, R3158
(1998).
“Computation of the position and the width of the $B^- 1s^2 2s^2 2p^2 \ ^1D$ shape resonance”.
256. M. Bylicki and C. A. Nicolaides, J. Phys. **B 31**, L685 (1998).
“The $H^{2-} \ ^4S^o$ spectrum has at least two resonance states”.
257. C. Haritos, Th. Mercouris and C. A. Nicolaides, J. Phys. **B 31**, L783 (1998).
“Single and double photoionization cross-sections of the $He^- 1s2s2p \ ^4P^o$ state at and far from threshold, from the many-electron, many-photon theory”.
258. Y. Komninos and C. A. Nicolaides, Int. J. Quantum Chem. **71**, 25 (1999).
Erratum: IJQC **74**, 435 (1999).
“Molecular shape, the shape of the geometrically active atomic states and hybridization”.
259. C. A. Nicolaides, Int. J. Quantum Chem. **71**, 209 (1999).
“On the application of conventional quantum chemistry methods of computation to states perturbed by the continuous spectrum”.
260. S. I. Themelis and C. A. Nicolaides, Phys. Rev. **A 59**, 2500 (1999).
“Quantum mechanical vs semiclassical calculations of dc-field-induced tunneling rates of $Li \ 1s^2 2s \ ^2S$, $1s^2 2p \ ^2P^o$ and $1s^2 3d \ ^2D$ ”.
261. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 32**, 2371 (1999).
“Does a delta function atom interacting with a superstrong laser pulse exhibit

stabilization?”.

262. M. Bylicki and C. A. Nicolaides, J. Phys. **B 32**, L317 (1999).
“Even parity 1P resonances of H up to the $n=5$ threshold”.
263. Th. Mercouris, S. I. Themelis and C. A. Nicolaides, Phys. Rev. **A 61**,
013407 (2000).
“Nonperturbative theory and computation of the nonlinear response of
 He to dc- and ac-fields”.
264. S. I. Themelis, Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 61**, 024101
(2000).
“Quantum mechanical versus semiclassical calculations of dc-field tunneling
rates for He , for field strengths in the range 0.067-1.0 a.u.”.
265. M. Bylicki and C. A. Nicolaides, J. Phys. **B 33**, 911 (2000).
“Energies, widths and spectral features of the 3P resonances of H ”.
266. M. Bylicki and C. A. Nicolaides, Phys. Rev. **A 61**, 052508 (2000).
“Theoretical resolution of the H resonance spectrum up to the $n = 4$ threshold,
I: States of $^1P^o$, 1D , and $^1F^o$ symmetries”.
267. M. Bylicki and C. A. Nicolaides, Phys. Rev. **A 61**, 052509 (2000).
“Theoretical resolution of the H resonance spectrum up to the $n = 4$ threshold
II: States of 1S and 1D symmetries”.
268. S. Dionissopoulou, Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 61**,
063402 (2000). Erratum, *ibid*, **A 62** 039901 (2000).
“Variation of harmonic generation from He interacting with short laser pulses of
5 eV as a function of pulse rise time and intensity”.
269. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 33**, 2095 (2000).
“The continuous spectrum in the solution of the time-dependent Schrödinger
equation for laser-atom interactions”.
270. C. A. Nicolaides, C. Haritos and Th. Mercouris, J. Phys. **B 33**, 2733 (2000).
“Nonperturbative multiphoton detachment rates of H and their relation to the
electronic structure of the initial state”.
271. Th. Mercouris and C. A. Nicolaides, J. Phys. **B 33**, 4673 (2000).
“Dichromatic polyphotonic ionization rate of He for $\lambda_1 = 248$ nm and $\lambda_2 =$
(1/3)248 nm from the many-electron, many-photon theory.”
272. S. I. Themelis and C. A. Nicolaides, J. Phys. **B 33**, 5561 (2000).
“Complex energies and the polyelectronic Stark problem”.

273. C. Haritos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 63**, 013410 (2001).
“Multiphoton detachment rates of H for weak and strong fields”.
274. Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 63**, 013411 (2001).
“He in dichromatic weak or strong ac-fields of $\lambda_1 = 248$ nm and $\lambda_2 = (1/m)248$ nm, $m = 2, 3, 4$ ”.
275. C. A. Nicolaides and N. A. Piangos, J. Phys. **B 34**, 99 (2001).
“Existence and characterization of $n = 3$ triply excited resonances of He^- ”.
276. Th. Mercouris and C. A. Nicolaides, Eur. Phys. J. **D 14**, 241 (2001).
“The multiphoton ionization rate and the energy shift of atoms interacting with weak dichromatic fields with commensurate frequencies are simple functions of the phase”.
277. S. I. Themelis and C. A. Nicolaides, J. Phys. **B 34**, 2905 (2001).
“Complex energies and the polyelectronic Stark problem: II. The Li $n = 4$ levels for weak and strong fields”.
278. Th. Mercouris and C. A. Nicolaides, Physica **B 296**, 271 (2001).
“He in two-color ac-fields of $\lambda_1 = 248$ nm and $\lambda_2 = (1/m)248$ nm, $m = 2, 3, 4$. The rate of multiphoton ionization, for weak fields, is a simple function of the phase”.
279. C. A. Nicolaides and N. A. Piangos, Phys. Rev. **A 64**, 052505 (2001).
“State-specific approach and computation of resonance states. Identification and properties of the lowest $^2P^o$ and 2D triply excited states of He^- ”.
280. Th. Mercouris, C. Haritos and C. A. Nicolaides, J. Phys. **B 34**, 3789 (2001).
“Theory and computation of the rate of multiphoton two-electron ionization via the direct mechanism”.
281. V. Constantoudis and C. A. Nicolaides, Phys. Rev. **E 64**, 056211 (2001).
“Nonhyperbolic escape and changes in phase space stability structures in laser-induced multiphoton dissociation of a diatomic molecule”.
282. N. A. Piangos and C. A. Nicolaides, J. Phys. **B 34**, L633 (2001).
“Weakly bound resonances: Electronic structure and partial decay widths of a new He^- triply excited resonance”.
283. M. Bylicki and C. A. Nicolaides, Phys. Rev. **A 65**, 012504 (2002).
“Theoretical resolution of the H resonance spectrum up to the $n = 5$ threshold, III: States of $^3P^o$ symmetry”.
284. Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 65**, 012112 (2002).

- “Stationarity coefficients and short-time deviations from exponential decay in atomic resonance states”.*
285. S. I. Themelis, Y. Komninos and C. A. Nicolaides, Eur. Phys. J. **D 18**, 277 (2002).
“Properties of doubly excited states of H and He associated with manifolds from $N = 6$ to $N = 25$ ”.
286. Th. Mercouris, Y. Komninos and C. A. Nicolaides, J. Phys. **B 35**, 1439 (2002).
“Electric dipole versus full interaction in the dynamics of laser excitation of Rydberg wavepackets”.
287. C. A. Nicolaides, S. I. Themelis and Y. Komninos, J. Phys. **B 35**, 1831 (2002).
“Degrees of validity of models for the description of doubly excited states of H and He”.
288. Y. Komninos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 65**, 043412 (2002).
“Theory and computation of the matrix elements of the full interaction of the electromagnetic field with an atomic state. Application to the Rydberg and the continuous spectrum”.
289. C. A. Nicolaides, Int. J. Quantum Chem. **89**, 94 (2002).
“Time-asymmetry, nonexponential decay and complex eigenvalues in the theory and computation of resonance states”.
290. C. A. Nicolaides, Th. Mercouris and Y. Komninos, J. Phys. **B 35**, L271 (2002).
“Attosecond dynamics of electron correlation in doubly excited states”.
291. C. A. Nicolaides, Phys. Rev. **A 66**, 022118 (2002).
“Physical constraints on nonstationary states and nonexponential decay”.
292. N. A. Piangos, Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 66**, 032721 (2002).
“ $He^{-2}D$ weakly bound triply excited resonances: Interpretation of previously unexplained structures in the experimental spectrum”.
293. V. Constantoudis and C. A. Nicolaides, in “Current developments in atomic, molecular and chemical physics with applications”, ed. M. Mohan, Kluwer Plenum Press (2002), p.25.
“Fractal singularities and the rate of multiphoton dissociation”.
294. Th. G. Douvropoulos and C. A. Nicolaides, J. Phys. **B 35**, 4453 (2002).
“Time-dependent tunneling via path integrals. Connection to results of the quantum mechanics of decaying states”.

295. N. A. Piangos and C. A. Nicolaides, Phys. Rev. **A 67**, 052501 (2003).
“Calculation of $n = 3$ intrashell resonance states of He^- and of isoelectronic atoms”.
296. Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 67**, 063403 (2003).
“Solution of the many-electron, many-photon problem for strong fields: Application to Li^- in one- and two-color laser”.
297. C. A. Nicolaides, in *“The Fundamental World of Quantum Chemistry”*, eds. E. S. Kryasko and E. J. Brändas, Kluwer (2003), vol. 2, p.93.
“Recent developments and applications of the state-specific approach to excited states and dynamics”.
298. C. A. Nicolaides, Int. J. Theor. Phys. **42**, 2145 (2003).
“Aspects of the theory and computation of field-free and field-dressed resonance states in atomic physics”.
299. C. A. Nicolaides, in *“Irreversible Quantum Dynamics”*, eds. F. Benatti and R. Floreanini, Springer-Verlag, Berlin, (2003) p. 357.
“Irreversibility in the framework of Hermitian and non-Hermitian treatments of resonance states”.
300. Th. G. Douvropoulos and C. A. Nicolaides, J. Chem. Phys. **119**, 8235 (2003).
“Tunneling dissociation from a double well via path integrals”.
301. Th. Mercouris, Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 69**, 032502 (2004).
“Theory and computation of the attosecond dynamics of pairs of electrons excited by high-frequency short light pulses”.
302. Th. G. Douvropoulos and C. A. Nicolaides, Phys. Rev. **A 69**, 032105 (2004).
“Nonexponential decay propagator and its differential equation for real and complex energy distributions of unstable states”.
303. Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 70**, 042507 (2004).
“Effects of configuration interaction on photoabsorption spectra in the continuum”.
304. Y. Komninos and C. A. Nicolaides, J. Phys. **B 37**, 1817 (2004).
“Quantum defect theory for Coulomb and other potentials in the framework of configuration interaction, and implementation to the calculation of 2D and $^2F^o$ perturbed spectra of Al”.
305. C. A. Nicolaides, Int. J. Quantum Chem. **102**, 250 (2005).
“On calculations of correlated wavefunctions with heavy configurational mixing”.

306. Y. Komninos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. **A 71**, 023410 (2005).
“Long-wavelength approximation in on- and off-resonance transitions”.
307. Th. Mercouris, C. Haritos and C. A. Nicolaides, J. Phys. **B 38**, 399 (2005).
“Interference generalized cross-section for the multiphoton detachment of H in dichromatic fields”.
308. V. Constantoudis and C. A. Nicolaides, J. Chem. Phys. **122**, 084118 (2005).
“Stabilization and relative phase effects in a dichromatically driven diatomic Morse molecule: Interpretation based on nonlinear classical dynamics”.
309. C. A. Nicolaides and Th. G. Douvropoulos, J. Chem. Phys. **123**, 024309 (2005).
“Shape resonances as poles of the semiclassical Green’s function obtained from path-integral theory: Application to the autodissociation of the $He_2^{++} \ 1\Sigma_g^+$ state”.
310. Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 72**, 032716 (2005).
“Effect of the Rydberg states on the time evolution of nonstationary states below or just above the ionization threshold”.
311. Th. Mercouris and C. A. Nicolaides, J. Optics **B-Quantum and Semiclassical Optics**, **7**, S403 (2005).
“Controllable surfaces of path interference in the multiphoton ionization of atoms by a weak trichromatic field”.
312. Β. Κωνσταντούδης, Κλ. Α. Νικολαΐδης, Ε. Μελετλίδου και Σ. Ιχτιάρογλου, Πρακτικά 18^{ου} Πανελληνίου Συνεδρίου «Μη Γραμμική Δυναμική και Πολυπλοκότητα», εκδ. Α. Μπουντης, Πνευματικός (2005), σελ. 245.
‘Μη γραμμική δυναμική φωτοδιάσπασης μοριακών δεσμών από δύο πεδία laser’
313. C. A. Nicolaides, Am. J. Phys. **74**, 757 (2006).
“On past and present scientific ‘mumbo-jumbo’”.
314. Th. G. Douvropoulos and C. A. Nicolaides, Int. J. Quantum Chem. **106**, 1032 (2006).
“Semiclassical path integral theory of a double-well potential in an electric field”.
315. Th. Mercouris, Y. Komninos and C. A. Nicolaides, Phys. Rev. **A 75**, 013407 (2007). Erratum, Phys. Rev. **A 87**, 069905(E) (2013).
“Time-dependent formation of the profile of the $He \ 2s2p \ 1P^o$ state excited by a short laser pulse”.

316. K. I. Dimitriou, V. Constantoudis, Th. Mercouris, Y. Komninos and C. A. Nicolaides, Phys. Rev. A **76**, 033406 (2007).
“Quantum and classical dynamics of a diatomic molecule in laser fields with frequency in the region producing maximum dissociation”.
317. Th. Mercouris, Y. Komninos and C. A. Nicolaides, Phys. Rev. A **76**, 033417 (2007).
“Time-resolved hyperfast processes of strongly correlated electrons during the coherent excitation and decay of multiply excited and inner-hole excited states”.
318. C. A. Nicolaides, Th. Mercouris and Y. Komninos, in *Computational Methods in Science and Engineering*, vol. 1, eds. G. Maroulis and T. E. Simos, AIP Conference Proceedings, **963**, p.560 (2007).
“Ab initio many-electron calculation of hyperfast time-resolved coherent excitation and decay of polyelectronic atoms”.
319. Y. Komninos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. A **77**, 013412 (2008).
“Ab initio calculation of time-dependent control dynamics in polyelectronic systems involving bound and resonance states: Application to a quartet spectrum of He”.
320. V. Constantoudis, L. P. Konstantinidis, K. I. Dimitriou, Th. Mercouris and C. A. Nicolaides, Nonlinear Phenomena in Complex Systems, **11**, 292 (2008).
“Classical chaos and its relation to quantum dynamics in the case of multiphoton dissociation of the Morse oscillator”.
321. C. A. Nicolaides and V. Constantoudis, Eur. J. Phys. **30**, 1277 (2009).
“Cycle-averaged phase-space states for the harmonic and the Morse oscillator, and the corresponding uncertainty relations”.
322. C. A. Nicolaides, Th. Mercouris and Y. Komninos, Phys. Rev. A **80**, 055402 (2009).
“The time-dependent formation of the profile of resonance atomic states and its dependence on the duration of ultra-short pulses from free-electron lasers”.
323. K. I. Dimitriou, V. Constantoudis, Th. Mercouris and C. A. Nicolaides, J. Phys. Conf. Series **194**, 032056 (2009).
“Carrier envelope phase effects in molecular dissociation by few-cycle strong laser fields”.
324. M. Schultze, M. Fieß, N. Karpowicz, J. Gagnon, M. Korbam, M. Hofstetter, S. Neppl, A. L. Cavalieri, Y. Komninos, Th. Mercouris, C. A. Nicolaides, R. Pazourek, S. Nagele, J. Feist, J. Burgdörfer, A. M. Azzeer, R. Ernstorfer, R. Kienberger, U. Kleineberg, E. Goulielmakis, F. Krausz and V. S. Yakovlev, SCIENCE **328**, 1658 (2010).

“Delay in Photoemission”.

325. C. A. Nicolaides, Adv. Quantum Chem. **60**, *Unstable States in the Continuous Spectra, Part I: Analysis, Concepts, methods and Results*, eds. C. A. Nicolaides and E. J. Brändas, p.163 (2010).
“Theory and Many-Electron Computation of Field-Free and Field-Induced Unstable States in Atoms and Molecules”.
326. Th. Mercouris, Y. Komninos and C. A. Nicolaides, Adv. Quantum Chem. **60**, *Unstable States in the Continuous Spectra, Part II: Interpretation, Theory and Applications*. eds. C. A. Nicolaides and E. J. Brändas, p. 333 (2010).
“The State-Specific Expansion Approach and its Application to the Quantitative Analysis of Time-Dependent Dynamics in Atoms and Small Molecules”.
327. Th. Mercouris, Y. Komninos and C. A. Nicolaides, Phys. Rev. A **83**, 015403 (2011).
“Nonperturbative computation of the time-resolved formation of the profile of autoionizing states as a function of the intensity and duration of ultrashort pulses”.
328. C. A. Nicolaides, Int. J. Quantum Chem. **111**, 3347 (2011).
“State- and property-specific quantum chemistry: basic characteristics and sample applications to atomic, molecular and metallic ground and excited states of Beryllium”.
329. Y. Komninos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. A **83**, 022501 (2011).
“Regular series of doubly excited states inside two-electron continua: Application to $2s^2$ -hole states in Neon, above the $Ne^{2+} 1s^2 2s^2 2p^4$ and $1s^2 2s 2p^5$ thresholds”.
330. L. P. Konstantinidis, V. Constantoudis and C. A. Nicolaides, Int. J. Bifurcation and Chaos, **21**, 2587 (2011).
“Classical dynamics of escape in a periodically driven unbound Hamiltonian system. Initial phase effects”.
331. C. A. Nicolaides, Adv. Quantum Chem. **62**, 35 (2011).
“State- and Property-Specific Quantum Chemistry”.
332. Y. Komninos, Th. Mercouris and C. A. Nicolaides, Phys. Rev. A **86**, 023420 (2012).
“Structure and calculation of field-induced free-free transition matrix elements in many-electron atoms”.

333. I. S. Kerkines and C. A. Nicolaides, J. Chem. Phys. **137**, 124309 (2012).

“Short- and long-range binding of Be with Mg in the $X^1\Sigma^+$ ground state and in the $A^1\Pi$ excited state”.

334. C. A. Nicolaides, EuroPhysics Letters **101**, 42001 (2013).

“Is radioactive decay really exponential?”