

List of Publications

Publications: *International journals*

(21)

1. D. Gupta, R. Nagma, M. Vinodkumar and [B. K. Antony](#)
Total ionization cross sections for Sr, Y, Ru, Pd and Ag atoms by electron impact
J. Phys. B: At. Mol. Opt. Phys.; (Communicated, 2011)
2. Minaxi Vinodkumar, Harshad Bhutadia, Nigel Mason & [Bobby Antony](#)
"Electron Impact rotationally elastic total cross section for prebiotic molecules (H₂CO and HCOOH) over wide range of incident energy (0.01 eV – 2000 eV)"
Phys. Rev. A; (Communicated, 2011)
3. Minaxi Vinodkumar, Harshad Bhutadia and [Bobby K. Antony](#)
"Screening corrected total ionization cross sections for N(CH₃)₃, NH₂CH₃, PH₂CH₃, P(CH₃)₃, NH(CH₃)₂, PH(CH₃)₂ on electron impact"
Int. J Mass Spectrom, (Communicated, 2011)
4. Harshad Bhutadia¹, Bobby Antony and Minaxi Vinodkumar
Theoretical investigation of electron impact total ionization cross section for N(CH₃)₃, NH(CH₃)₂, NH₂CH₃, P(CH₃)₃, PH(CH₃)₂ and PH₂CH₃ molecules
Korean J. Phys. (Accepted, 2011)
5. R. Nagma, B. N. Mahato, M. Vinodkumar and [B. K. Antony](#)
"Electron impact total ionization cross sections for atoms with Z=49-54"
J. Phys. B: At. Mol. Opt. Phys.; **44** (2011) 105204
6. Minaxi Vinodkumar, Rucha Dave, Harshad Bhutadia and [Bobby K. Antony](#)
"Electron impact total ionization cross sections for halogens and their hydrides"
Int. J Mass Spectrom, **292** (2010) 7-13.
7. Minaxi Vinodkumar, Kirti M. Korot, Chetan Limbachiya and [Bobby K. Antony](#)
"Screening-corrected electron impact total and ionization cross sections for boron trifluoride (BF₃) and boron trichloride (BCl₃)"
J. Phys. B: At. Mol. Opt. Phys.; **41** (2008) 245202 (9pp)
8. [Bobby K. Antony](#), Daniel L. Niles, Sarah Wroblewski & Robert R. Gamache
"N₂⁻, O₂⁻ and air-broadened half-widths and line shifts for transitions in the ν₃ band of methane in the 2726 to 3200 cm⁻¹ spectral region"
J. Mol. Spec. **251** (2008) 268-281
9. Minaxi Vinodkumar, Chetan Limbachiya, [Bobby K. Antony](#) & K N Joshipura
"Calculation of elastic, ionization & total cross sections for inert gases upon electron impact: threshold - 2 keV"
J. Phys. B: At. Mol. Opt. Phys.; **40** (2007) 3259-3271
10. [Bobby K. Antony](#) & Robert Gamache
"Line Shape parameters for water vapor in the 3.2 to 17.76 μm region for Atmospheric Applications"
J. Molec. Spectrosc.; **243** (2007) 149-159
11. [Bobby K. Antony](#), Steven Neshyba & Robert Gamache
"Self-broadening of water vapor transitions via the complex Robert-Bonamy theory"
J. Quant. Spectrosc. & Radiat. Transfer; **105** (2007) 148-163
12. [Bobby K. Antony](#), Peter Gamache, Carlos Szembek, Danielle Niles, & Robert R Gamache
"Modified complex Robert-Bonamy formalism calculations for strong to weak interacting systems"
Molec. Phys.; **104** (2006) 2791-2799
13. Minaxi Vinodkumar, K. N. Joshipura, C. G. Limbachiya & [B. K. Antony](#)
"Electron impact total and ionization cross-sections for some hydrocarbon molecules and radicals"
Euro. Phys. J D; **37** (2006) 67-74
14. [B K Antony](#), K N Joshipura & N J Mason
"Total and ionization cross sections of electron scattering by fluorocarbons"
J. Phys. B: At. Mol. Opt. Phys; **38** (2005) 189-205

15. [B K Antony](#), K N Joshipura, N J Mason & Jonathan Tennyson
"R-matrix calculation of low-energy electron collisions with LiH"
J. Phys. B: At. Mol. Opt. Phys.; **37** (2004) 1689-1697
16. [B K Antony](#), K N Joshipura & N J Mason
"Electron impact ionization studies with aeronomic molecules"
Int. J. Mass Spectrom.; **233** (2004) 207-214
17. K N Joshipura, Minaxi Vinodkumar, C G Limbachiya & [B K Antony](#)
"Calculated total cross sections of electron impact ionization and excitations in tetrahedral XY₄ and SF₆ molecules"
Phys. Rev. A; **69** (2004) 022705 (6pp)
18. Minaxi Vinodkumar, K N Joshipura, C G Limbachiya & [B K Antony](#)
"Electron impact ionization of H₂O molecule in crystalline ice"
Nucl. Instr. & Meth. B; **212** (2003) 63-66
19. K N Joshipura, Minaxi Vinodkumar, [B K Antony](#) & N J Mason
"Theoretical total ionization cross sections of CH_x, CF_x, SiH_x, SiF_x (x=1-4) and CCl₄ targets by electron impact"
Euro. Phys. J. D; **23** (2003) 81-90
20. K N Joshipura, [B K Antony](#) & V Minaxi
"Electron Scattering and Ionization of Ozone, O₂, O₄ Molecules"
J. Phys. B: At. Mol. Opt. Phys., **35** (2002) 4211-4221
21. K N Joshipura & [B K Antony](#)
"Total including ionization cross sections of electron impact on ground state and metastable Ne atoms"
Phys. Letts. A, **289** (2001) 323-328

Publications: *National journal*

(06)

22. Avani Y Barot, Minaxi Vinodkumar and [Bobby Antony](#)
"Electron impact total cross sections for ethylene oxide"
J. Pure & Appl. Sci. – Prajna; (Communicated, 2011)
23. Minaxi Vinodkumar, C. G. Limbachiya and [Bobby K. Antony](#)
"Calculations of total ionization cross sections for halogen compounds on electron impact from threshold to 2 keV"
Indian J. Phys., (Accepted, 2011)
24. Harshad Bhutadia, Kirti Korot, [Bobby Antony](#) and Minaxi Vinodkumar
"Screening-corrected electron impact total and total ionization cross sections for N(CH₃)₃ and P(CH₃)₃"
Prajna - J. Pure & Appl. Sci., **18** (2010) 140-144
25. Kirti M. Korot, [Bobby K. Antony](#) & Minaxi Vinodkumar
"Electron impact total ionization cross sections for boron chlorides (BCl_x, x=1-3); threshold - 2keV"
J. Pure & Appl. Sci. – Prajna; **16** (2008) 110-120
26. Minaxi Vinodkumar, [B. K. Antony](#), C. G. Limbachiya & K. N. Joshipura
"Relative contributions of various electron collision processes on He and H₂ targets"
J. Pure & Appl. Sci. – Prajna; **12** (2003) 89-98
27. K N Joshipura, Minaxi Vinodkumar, C G Limbachiya & [B K Antony](#)
"Theoretical total cross sections of e - H₂O collisions in water, ice and forms"
Indian J. Phys., **76B** (2002) 569

Publications: *International proceedings*

(02)

28. Robert R. Gamache & [Bobby K. Antony](#)
"Half-widths and Line Shifts of Water Vapor for Atmospheric Applications: Measurement and Theory"; Remote Sensing of the Atmosphere for Environmental Security,
NATO Sciences Series, Springer; 203-220 (2006)
29. Robert R. Gamache, [Bobby K. Antony](#), Peter R. Gamache & Jean-Michel Hartmann

"The roles of the S_1 and S_2 scattering matrix terms on half-widths and their temperature dependence for the water vapor - nitrogen system"; in Spectral Line Shapes, eds. by E Oks & M Pindzola, AIP Conference Proceedings, Melville, NY; **874** (2006) 351-353

Publications: *Books*

(01)

30. Bobby K. Antony

"Electron collisions and ionization of atoms and molecules"; LAMBERT Academic Publishing, Germany (2010)

Publications: *Books (chapter)*

(02)

31. Minaxi Vinodkumar, K. N. Joshipura, C. G. Limbachiya and B. K. Antony

"Total and ionization cross sections for well known and exotic hydrocarbon molecules upon electron impact"; (Eds.) Man Mohan, in "Atomic structure and collision processes" Narosa Publishing House, New Delhi, India (2009) 177-188.

32. K N Joshipura, B K Antony & V Minaxi

"Electron impact cross sections with O atom; O_2 and O_3 molecules - a theoretical survey"; in Current Developments in atomic, molecular, and chemical physics with applications, Ed. Man Mohan; Kluwer Publications, UK (2002)

Conferences etc. attended

1. XXVII International Conference on Photonic, Electronic and Atomic Collisions; Queen's University, Belfast, Northern Ireland, UK, 27 Jul-2 Aug, 2011
2. 2nd DAE-BRNS Symposium on Atomic, Molecular and Optical Physics; Karnatak University, Dharward, 22-25 Feb, 2011
3. Joint ICTP/IAEA Workshop on Atomic and Molecular Data for Fusion, ICTP, Trieste, Italy, 20-30 Apr, 2009.
4. National seminar on recent trends in emerging frontiers of physical sciences; BIT Sindri, Dhanbad, 2-3 Nov, 2009.
5. XVII National Conference on Atomic & Molecular Physics, Inter-University Accelerator Centre, New Delhi, India, 10-13 Feb, 2009.
6. Topical Conference on Atomic and Molecular Physics; Sardar Patel University, Gujarat - India (2008).
7. 9th Biennial HITRAN Conference; Harvard-Smithsonian Center for Astrophysics, MA, US (2006).
8. 61st International Symposium on Molecular Spectroscopy; The Ohio State University, US (2006).
9. XV National Conference on Atomic & Molecular Physics; Physical Research Laboratory, Ahmedabad, India (2004).
10. UK meeting and summer school on atomic, molecular, quantum and plasma physics; Open University
11. UK (2003).
12. 13th International symposium on electron-molecule collisions and swarms; Pruhonice near Prague, Czech Republic (2003).
13. 2nd Electron Positron Induced Chemistry Network Meeting; Pruhonice near Prague, Czech Republic (2003).
14. XXIII ICPEAC; University of Stockholm, Sweden (2003).
15. EU-Japan Joint Symposium on Plasma Processing; The Manne Siegbahn Laboratory, University of
16. Stockholm, Sweden (2003).
17. 1st Electron Positron Induced Chemistry Network Meeting; Open University { UK (2003).

18. Workshop and School on Distributed Parallel Computing Programme; Harish-Chandra Research Institute, Allahabad, India (2002).
19. International conference on current developments in atomic, molecular & chemical physics with applications; Delhi University, Delhi, India (2002).
20. XII International conference on atomic and molecular physics; IACS, Jadavpur, Kolkata, India (2001).
21. International conference on perspectives in theoretical physics; Physical Research Laboratory, Ahmed-
Abad, India (2001).

Papers presented: [*International conferences/seminars/workshop/symposiums*](#)

(35)

Oral

1. "Electron impact scattering from molecules: A theoretical study"; 3rd International conference on Current developments in Atomic, Molecular, Optical and Nano Physics, 2011, Delhi University, New Delhi, 2011.
1. "Dissociative electron attachment: theoretical study"; Joint ICTP/IAEA Workshop on Atomic and Molecular Data for Fusion, ICTP, Trieste, Italy, 20-30 Apr, 2009.
2. "Calculation of lineshape parameters for self-broadening of water vapor transitions via complex Robert-Bonamy theory"; 61st International Symposium on Molecular Spectroscopy, The Ohio State University, Ohio, US, 19-23 Jun, 2006.
3. "Calculation of ionization cross-sections of free radicals"; 2nd Electron Positron induced Chemistry, Pruhonice, Near Prague, Czech Republic, 30 Jul-2 Aug, 2003.

Poster

4. Minaxi Vinodkumar, Harshad Bhutadia & [Bobby Antony](#); "Electron impact total ionization cross sections for simple biomolecules (H₂CO, HCOOH and CHCOOH) using ICSP-ic method"; XXVII International Conference on Photonic, Electronic and Atomic Collisions; 27 Jul-2 Aug, 2011, Belfast, Northern Ireland, UK
5. R. Naghma, B. N. Mahato, M. Vinodkumar and [B. K. Antony](#); "Calculation of electron impact total ionization cross sections for the atoms Ga, Ge, As, Se, Br and Kr"; XXVII International Conference on Photonic, Electronic and Atomic Collisions; 27 Jul-2 Aug, 2011, Belfast, Northern Ireland, UK
6. [Bobby Antony](#) & Minaxi Vinodkumar; "Total and ionization cross sections for halogen hydrides by electron impact"; XVII International Symposium on Electron Molecule Collisions and Swarms; 22 July - 25 July, 2011, National University of Ireland, Maynooth, Ireland
7. Rahla Naghma, Dhanoj Gupta & [Bobby Antony](#); "Calculation of total ionisation cross section for C₂ by electron impact"; XVII International Symposium on Electron Molecule Collisions and Swarms; 22 July - 25 July, 2011, National University of Ireland, Maynooth, Ireland
8. [Bobby K. Antony](#) & Minaxi Vinodkumar; "Electron impact cross sections from molecules of astrophysical importance" 9th Asian International Seminar on Atomic and Molecular Physics; Seol, Korea, 4-8 Oct, 2010
9. Minaxi Vinodkumar, Rucha Dave, Harshad Bhutadia & [Bobby Antony](#); "Ionization cross sectional study by electron impact for atoms and molecules of applied interest in plasma physics"; 10th European Conference on Atoms Molecules and Photons, Salamanca, Spain, 4-9 July, 2010
10. Minaxi Vinodkumar and [Bobby K. Antony](#) "Computation of electron impact cross sections from molecules of astrophysical importance"; 2nd International Conference on Applied Physics and Mathematics, Kuala Lumpur, Malaysia, 7-10 May, 2010
11. Rahla Nagma, Minaxi Vinodkumar & [Bobby Antony](#); "Electron impact scattering from astrophysical molecules"; XXVI ICPEAC 2009, Kalamazoo, Michigan, USA, 22-28 Jul, 2009.

12. Chetan Limbachiya, Minaxi Vinodkumar and [Bobby Antony](#); Electron impact various total cross sections for compounds containing C & H"; XXVI ICPEAC 2009, Kalamazoo, Michigan, USA, 22-28 Jul, 2009.
13. Minaxi Vinodkumar, Kirti Korot & [Bobby Antony](#); "Calculations of electron impact cross sections of environmentally sensitive molecules"; XXVI ICPEAC 2009, Kalamazoo, Michigan, USA, 22-28 Jul, 2009.
14. Minaxi Vinodkumar, Kirti Korot, Chetan Limbachiya & [Bobby Antony](#); "Calculations of various total cross section using screening corrections on electron impact for halogen containing molecules"; XXVI ICPEAC 2009, Kalamazoo, Michigan, USA, 22-28 Jul, 2009.
15. Robert R. Gamache, [Bobby Antony](#), Danielle L. Niles, Sarah B. Wroblewski, Caitlin M. Humphrey, Tony Gabard; "Half-widths and Line Shifts for Transitions in the ν_3 Band of Methane in the 2726-3200 cm^{-1} Spectral Region for Atmospheric Applications"; 10th Biennial HITRAN Database Conference, Harvard-Smithsonian Center for Astrophysics, 22-24 Jun, 2008
16. Robert R. Gamache, [Bobby Antony](#), Danielle L. Niles, Sarah B. Wroblewski, Caitlin M. Humphrey, Tony Gabard; "Line Shape Parameters for ν_3 Transitions of $^{12}\text{CH}_4$ "; 19th International Conference on Spectral Line Shapes, Valladolid, Spain, 15-20 Jun, 2008
17. Caitlin M. Humphrey, Robert R. Gamache, [Bobby Antony](#), Danielle L. Niles, Sarah B. Wroblewski, Tony Gabard; "N₂-, O₂- and Air-broadened Half-widths and Line Shifts for Transitions in the ν_3 Band of Methane in the 2726-3200 cm^{-1} Spectral Region; 11th Annual Student Research Symposium, The University of Massachusetts Lowell, 29 Apr, 2008
18. Robert R. Gamache, Peter R. Gamache and [Bobby Antony](#); "Non-linear least-squares adjustment of the intermolecular potential parameter for the H₂O-N₂ system"; The 19th International Conference on High Resolution Molecular Spectroscopy, Prague, Czech Republic, 29 Aug-2 Sep, 2006
19. R R Gamache, [B. K. Antony](#) & P R Gamache; "Temperature dependence of N₂-, O₂-, and air-broadened half-widths of water vapor transitions: insight from theory and comparison with measurement"; 9th Biennial HITRAN Conference, Harvard-Smithsonian Center for Astrophysics, MA, USA, 26-28 Jun, 2006.
20. Carlos Szembek, [Bobby Antony](#) & Robert Gamache; "A semi-empirical adjustment of the vibrational dependence of the polarizability of Ozone for use in line shift calculations"; 9th Biennial HITRAN Conference, Harvard-Smithsonian Center for Astrophysics, MA, US, 26-28 Jun, 2006.
21. R. R. Gamache, [B. K. Antony](#) and P. R. Gamache; "Temperature dependence of N₂-, O₂-, and air-broadened half-widths of water vapor transitions"; International Symposium on Molecular Spectroscopy, 61st Meeting, The Ohio State University, Columbus, OH, USA, 19-23 Jun, 2006
22. [Bobby Antony](#), Peter Gamache, Robert R. Gamache, and Jean-Michel Hartmann; "The roles of the S1 and S2 scattering matrix terms on half-widths and their temperature dependence for the water vapor-nitrogen system"; 18th International Conference on Spectral Line Shapes, Auburn University, Auburn, Alabama, 4-9 Jun, 2006
23. [Bobby Antony](#), Peter Gamache, Carlos Szembek, Danielle Niles, and Robert R. Gamache; "Modified complex Robert-Bonamy formalism calculations for strong to weak interacting systems"; 19th Colloquium on High Resolution Molecular Spectroscopy, 11-16 Sep 2005, Salamanca, Spain
24. [Bobby Antony](#), Steven Neshyba and Robert R. Gamache; "Self-broadening of water vapor transitions via the modified complex Robert-Bonamy theory"; Atmospheric Spectroscopy Applications workshop, Université Reims Champagne-Ardenne, Reims, 6-7 Sep, 2005
25. K. N. Joshipura, A. Bhardwaj, S. P. Khare and [B. K. Antony](#); "Electron collisions and ionization of H₂O in ice: the cracking pattern"; XXIV ICPEAC, Rosario, Argentina, 20-26 Jul, 2005.
26. B G Vaishnav, C G Limbachiya, [B K Antony](#) & K N Joshipura; "Electron impact ionization cross sections of atoms (O, Al, Cu) & metal oxides: SCOP formalism"; XXIV ICPEAC Rosario, Argentina, 20-26 Jul, 2005.
27. [B K Antony](#), N J Mason & K N Joshipura; "A simplified derivation of electron scattering cross sections for technology and radiation physics"; 13th International symposium on electron-molecule collisions and swarms; Pruhonice near Prague, Czech Republic, 30 Jul-2 Aug, 2003.

28. K N Joshipura, Minaxi Vinodkumar, C G Limbachiya & [B K Antony](#); "Electron impact ionization versus excitation in isoelectronic 10-e and 18-e systems: TCS ratio characteristics"; 13th International symposium on electron-molecule collisions & swarms; Pruhonice near Prague, Czech Republic, 30 Jul-2 Aug, 2003.
29. K N Joshipura, Minaxi Vinodkumar, [B K Antony](#) & N J Mason; "Electron impact ionization vis-à-vis excitation in tetrahedral (XY₄) and SF₆ molecules: TCS ratio analysis"; 13th International symposium on electron-molecule collisions & swarms; Pruhonice near Prague, Czech Republic, 30 Jul-2 Aug, 2003.
30. K N Joshipura, Minaxi Vinodkumar, C G Limbachiya & [B K Antony](#); "Ionization of exotic systems (dimers & fullerenes) electron impact"; XXIII ICPEAC; University of Stockholm, Sweden, 23-29 Jul, 2003.
31. K N Joshipura, Minaxi Vinodkumar, [B K Antony](#), C G Limbachiya & B G Vaishnav; "Characterizing electron collisions by TCS ratio analysis: common atomic molecular targets"; XXIII ICPEAC; University of Stockholm, Sweden, 23-29 Jul, 2003.
32. [B K Antony](#), N J Mason, Minaxi Vinodkumar & K N Joshipura; "Electron-impact total ionization cross-sections of the chloro^ouoromethanes and related compounds"; XXIII ICPEAC; University of Stockholm, Sweden, 23-29 Jul, 2003.
33. [B K Antony](#), N J Mason & K N Joshipura; "Electron impact collision studies on oxygen compounds of applied interest"; XXIII ICPEAC; University of Stockholm, Sweden, 23-29 Jul, 2003.
34. K N Joshipura, C G Limbachiya & [B K Antony](#); "Electron impact ionization of ground state and metastable neon"; International Conference on Perspectives in Theoretical Physics; Physical Research Laboratory, Ahmedabad, India, 8-12 Jan, 2001.

Papers presented: [National conferences/seminars/workshop/symposiums journals](#) (24)

Oral

2. "Electron impact total ionization cross sections for atoms (Z=50-54)"; 2nd DAE-BRNS Symposium on Atomic, Molecular and Optical Physics; Karnatak University, Dharward, 22-25 Feb, 2011
3. "Theoretical studies on electron scattering from astrophysical molecules"; National seminar on recent trends in emerging frontiers of physical sciences; BIT Sindri, Dhanbad, 2-3 Nov, 2009.
4. "Collision broadened half-width and pressure induced line shifts for atmospheric applications"; Topical Conference on Atomic and Molecular Physics, Sardar Patel University, Gujarat, 3-5 Jan, 2008.
5. "Theoretical study of electron collisions and ionization of atoms, molecules and clusters"; XV National Conference on Atomic & Molecular Physics (NCAMP), Physical Research Laboratory, Ahmedabad, 20-24 Dec, 2004.

Poster

6. [B. K. Antony](#) & M. Vinodkumar "Calculation of electron impact total cross sections for astrophysical molecules"; Seminar on Physics at VP&RPTP Science College, Gujarat
7. Kirti Korot, Harshad Bhutadia, [Bobby Antony](#) and Minaxi Vinodkumar; "Improved Complex Scattering Potential – ionization contribution (ICSP-ic) method for the calculation of total ionization cross sections"; Seminar on Physics at VP&RPTP Science College, Gujarat
8. M. Vinodkumar, H. Bhutadia & [B. K. Antony](#); "Theoretical calculations of total cross sections for H₂CO and HCOOH from 0.01 eV to 2 keV on electron impact"; 2nd DAE-BRNS Symposium on Atomic, Molecular and Optical Physics; Karnatak University, Dharward, 22-25 Feb, 2011

9. [Bobby Antony](#) & Minaxi Vinodkumar; "Investigation on electron induced collision and ionization of some atmospheric gases"; XVII National Conference on Atomic & Molecular Physics, Inter-University Accelerator Centre, New Delhi, India, 10-13 Feb, 2009.
10. Minaxi Vinodkumar, Kirti Korot, Chetan Limbachiya & [Bobby Antony](#); "Screening corrections in calculations of total and ionization cross sections for molecules of applied interest in plasma"; XVII National Conference on Atomic & Molecular Physics, Inter-University Accelerator Centre, New Delhi, India, 10-13 Feb, 2009.
11. Minaxi Vinodkumar, Kirti Korot, Chetan Limbachiya & [Bobby Antony](#); "Screening corrections in calculations of various total cross sections for halogen containing molecules"; XXIII Gujarat Science Congress, Gujarat, 23 Dec, 2009.
12. Achamma Bobby & [Bobby K. Antony](#); "Investigations on the Stability and Phase Related Changes of Barrier height and Ideality factor of Ga-pWSe₂ Schottky diode"; National seminar on recent trends in emerging frontiers of physical sciences; BIT Sindri, Dhanbad, India, 2-3 Nov, 2009.
13. K N Joshipura, [B K Antony](#), B G Vaishnav & Chirag A Jhala; "Complex Potential Approach to Electron Impact Ionization of common Molecules and their Dimers"; XV National Conference on Atomic & Molecular Physics, Physical Research Laboratory, Ahmedabad, India, 20-24 Dec, 2004.
14. K N Joshipura, Anil Bhardwaj, S P Khare & [B K Antony](#); "Electron collisions & ionization processes in astrophysical molecules: H₂O in ice"; XV National Conference on Atomic & Molecular Physics, Physical Research Laboratory, Ahmedabad, India, 20-24 Dec, 2004.
15. K N Joshipura, Minaxi Vinodkumar, N J Mason & [B K Antony](#); "Theoretical studies on electron scattering and ionization in biomolecular targets"; XV National Conference on Atomic & Molecular Physics, Physical Research Laboratory, Ahmedabad, India, 20-24 Dec, 2004.
16. K N Joshipura, Minaxi V, C G Limbachiya & [B K Antony](#); "Electron impact ionization of H₂O Molecule in Crystalline Ice"; 20th International Conference on Atomic Collisions In Solids, Puri, Orissa, India, 19-24 Jan, 2003.
17. K N Joshipura, Minaxi Vinodkumar, [B K Antony](#), C G Limbachiya & N J Mason; Characterizing electron collision processes through TCS Ratios"; The 14th National Conference on Atomic and Molecular Physics, Santiniketan, India, 28 Jan-1 Feb, 2003.
18. K N Joshipura, K P Subramanian & [B K Antony](#); "Electron induced excitation & ionization in Laser produced Plasma"; The 14th National Conference on Atomic & Molecular Physics, Santiniketan, India, 28 Jan-1 Feb, 2003.
19. K N Joshipura, Minaxi V & [B K Antony](#); "Electron Impact ionization of Oxygen varieties: O, O₂, O₂^{*}, O₃, (O₂)₂ & (O₃)₂"; The 14th National Conference on Atomic & Molecular Physics, Santiniketan, India, 28 Jan-1 Feb, 2003.
20. K N Joshipura, C G Limbachiya & [B K Antony](#); "Electron impact total (complete) and Ionization Cross Sections of CH₄, CF₄, CCl₄, SiH₄, SiF₄, GeH₄ & SF₆"; The 14th National Conference on Atomic and Molecular Physics, Santiniketan, India, 28 Jan-1 Feb, 2003.
21. K N Joshipura, Minaxi V & [B K Antony](#); "Theoretical studies of electron ionization collisions on various radicals"; International Conference on Current Developments in Atomic, Molecular & Chemical Physics with applications; University of Delhi, India, 20-22 Mar, 2002.
22. K N Joshipura, [B K Antony](#) & Minaxi V; "Various total cross sections of electron impact on oxygen & ozone molecules"; International Conference on Current Developments in Atomic, Molecular & Chemical Physics with applications; University of Delhi, India, 20-22 Mar, 2002.
23. K N Joshipura, C G Limbachiya & [B K Antony](#); "Ionizing collisions of electrons with halogen atoms and molecules"; International Conference on Current Developments in Atomic, Molecular & Chemical Physics with applications; University of Delhi, India, 20-22 Mar, 2002.
24. K N Joshipura, Minaxi Vinodkumar, U M Patel & [B K Antony](#); "Electron collisions with H₂O in ice & in dimer"; XIII National Conference on Atomic & Molecular Physics; IACS, Kolkata, India, 16-20 Jan, 2001.
25. K N Joshipura, Minaxi Vinodkumar & [B K Antony](#); "Total ionization cross sections of electron impact on reactive radicals"; XIII National Conference on Atomic & Molecular Physics; IACS, Kolkata, India, 16-20 Jan, 2001.