

## COMPLETE LIST OF RESEARCH PRESENTATIONS & PUBLICATIONS OF PRABHAKAR MISRA

1. "Analysis of the  $v_1+v_2$  and  $v_1+v_2-v_2$  Bands of  $^{14}\text{NH}_3$  and  $^{15}\text{NH}_3$ ", S. Urban, **P. Misra**, R. D'Cunha and K.N. Rao, Paper RE13, 39th International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1984.
2. "Performance of a 300 grooves/mm, 20 cm x 40 cm Bausch & Lomb Plane Grating in a 10-M Czerny-Turner System Operating in the UV Region", C.W. Mathews, B. Hare, **P. Misra**, M. St. Clair, E. Williams, Jr. and K.N. Rao, Paper RC10, 39th International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1984.
3. "Vibration-Rotation Bands of Ammonia", **P. Misra**, Department of Physics, The Ohio State University, Columbus, OH, May 1985.
4. "The B  $2\Sigma^+-X 2\Sigma^+$  System of  $^{12}\text{C}^{16}\text{O}^+$  and  $^{13}\text{C}^{16}\text{O}^+$ ", **P. Misra**, C.W. Mathews, D.W. Ferguson and K.N. Rao, Paper MF11, 41st International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1986.
5. "Laser Induced Fluorescence Spectrum of Cold Methoxy Radical", S.C. Foster, X. Liu, **Prabhakar Misra**, L. Yu, C.P. Damo and T.A. Miller, Paper RA1, 42nd International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1987.
6. "Laser Spectroscopy of Free Radicals in a Supersonic Jet", **P. Misra**, Department of Physics & Astronomy, Howard University, Washington, DC, May 1988.
7. "Laser Excitation and Dispersed Fluorescence Spectra of Methoxy Produced by Photodissociation in a Pulsed Supersonic Jet Expansion", S.C. Foster, **Prabhakar Misra**, T.-Y. Lin, C.P. Damo, C.C. Carter and T.A. Miller, 43rd International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1988.
8. "Rotational Analysis of the A  $2A - X 2E$  Transition of  $\text{CH}_3\text{O}$  and  $\text{CH}_3\text{S}$ ", X. Liu, **Prabhakar Misra**, S.C. Foster, C.P. Damo, T.-Y. Lin and T.A. Miller, Paper TG13, 43rd International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1988.
9. "Excitation and Dispersed Fluorescence Spectra of the Ethoxy Free Radical", S.C. Foster, **Prabhakar Misra**, T.-Y. Lin, C.P. Damo, C.C. Carter and T.A. Miller, Paper MG3, 43rd International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1988.
10. "Laser-Induced Fluorescence Spectroscopy in a Free Jet", Department of Physics, James Madison University, Harrisonburg, VA, June 1988, Invited Talk.
11. "Free-Jet Cooled Laser Spectroscopy of Transient Molecules", Department of Physics, Howard University, Washington, DC, October 1988, Invited Talk.
12. "Laser Spectroscopy: A Probe Into the Private World of Atoms & Molecules", Society of Physics Students, Howard University Chapter, American Physical Society (APS), April 1990, Invited Talk.
13. "Fluorescent Decay and Radiative Lifetimes of the A  $1\Sigma^-$  State of  $\text{C}_2\text{N}_2$ ", S. Barts, K. Pinnex, Y. Huang, **P. Misra** and J. Halpern, Paper RD10, 45th International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1990.
14. "Release of Liposome Contents by Pulsed Laser Excitation", D.L. VanderMeulen, M. Khoka, **P. Misra**, J. Michael and K.G. Spears, Paper B1, Amoco/University Poster Session, Amoco Research Center, Naperville, IL, October 1990.
15. "Laser-Induced Release from Dye-Encapsulated Liposomes", **P. Misra**, J. Michael, D.L. VanderMeulen, K.G. Spears and M. Khoka, Paper 55, Graduate Research Symposium, Howard University, Washington, DC, April 1991.
16. "Pulsed Laser Excitation of Liposomes Containing Organic Dyes", **P. Misra**, J. Michael, D.L. VanderMeulen, K.G. Spears and M. Khoka, Paper F11 1, Annual Meeting Abstracts of the American Physical Society, Washington, D.C., April 1991.

17. "Photoinduced Release of Dyes from Liposomes", LaTonya J. Pegues and **Prabhakar Misra**, Sixth Annual National Conference of Black Physics Students, Stanford University, CA, February 1992.
18. "Laser Spectroscopy of the Hydroxyl and Alkoxy Radicals in a Supersonic Jet", **P. Misra**, X. Zhu, and A.H. Nur, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Washington, D.C., April 1992, Bull. Am. Phys. Soc. **37 (2)**, B10 5, 890 (1992).
19. "Laser Excitation Spectroscopy of Jet-Cooled Hydroxyl and Methoxy Radicals in the Overlapping 308-317 nm Spectral Region", Abdullahi H. Nur, Xinming Zhu, and **Prabhakar Misra**, Paper I-26, XXth Informal Conference on Photochemistry, Georgia Institute of Technology, GA, May-June 1992.
20. "Laser Excitation and Time-Resolved Fluorescence Measurements Involving Liposomes", Fazla R.B. Hossain and **Prabhakar Misra**, Seventh Annual National Conference of Black Physics Students, Michigan State University, East Lansing, MI, February 1993.
21. "Supersonic Jets and Excimer Lasers: A Stable Marriage for the Study of Unstable Free Radicals", **Prabhakar Misra**, Colloquium, Department of Physics & Astronomy, Howard University, Washington, D.C., February 1993.
22. "Laser Jet Spectroscopy of Methoxy and Methylthio Radicals", Hosie L. Bryant and **Prabhakar Misra**, Paper 81, Graduate Research Symposium, Howard University, Washington, D.C., April 1993.
23. "High Resolution Laser Induced Fluorescence Spectroscopy of the CH<sub>3</sub>O and CH<sub>3</sub>S Radicals", Mohammed M. Kamal and **Prabhakar Misra**, Paper 80, Graduate Research Symposium, Howard University, Washington, D.C., April 1993.
24. "Controlled Release of Dye from Liposomes", Michael A. Holt and **Prabhakar Misra**, Paper 82, Graduate Research Symposium, Howard University, Washington, D.C., April 1993.
25. "Time-Resolved Fluorescence Spectra of Dye-Liposome Complexes", Fazla Rabbi B. Hossain and **Prabhakar Misra**, Paper 79, Graduate Research Symposium, Howard University, Washington, D.C., April 1993.
26. "Vibronic and Rotational Analyses of LIF Spectra of CH<sub>3</sub>O and CH<sub>3</sub>S Radicals", **P. Misra**, X. Zhu, H. Bryant, A. Nur, and M. Kamal, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Washington, D.C., April 1993, Bull.Am.Phys.Soc. **38 (2)**, E11 7, 970 (1993).
27. "Multiphoton Cycling in Controlled Laser-Induced Release of Organic Dyes from Liposomes", **P. Misra**, S. Misra, D.L. VanderMeulen, and K.G. Spears, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Washington, D.C., April 1993, Bull.Am.Phys.Soc. **38 (2)**, E11 10, 971 (1993).
28. "Laser-Induced Fluorescence Spectroscopy of Jet-Cooled Free Radicals", **Prabhakar Misra**, Invited Talk at LASERS '93 International Conference, Paper TG2, Lake Tahoe, NV, December 1993.
29. "Laser Spectroscopy of Alkoxy and Alkylthio Radicals", Mohammed M. Kamal, Xinming Zhu, and **Prabhakar Misra**, Graduate Research Symposium, Paper 93, Howard University, Washington, D.C., April 1994.
30. "Laser Optogalvanic Spectroscopy", Abdullahi H. Nur, Xinming Zhu, and **Prabhakar Misra**, Graduate Research Symposium, Paper 92, Howard University, Washington, D.C., April 1994.
31. "Lasers and Liposomes: A Successful Marriage for Dye Release and Drug Delivery", Michael A. Holt and **Prabhakar Misra**, Graduate Research Symposium, Paper 94, Howard University, Washington, D.C., April 1994.
32. "Molecular Spectroscopy of Supersonically Cooled Transient Species", **P. Misra**, X. Zhu, M.M. Kamal, and A.H. Nur, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Crystal City, VA, April 1994, Bull.Am.Phys.Soc. **39 (2)**, G7 14, 1119 (1994).

33. "The Nature and Utility of Laser Optogalvanic Transitions in Spectroscopy", **P. Misra**, X. Zhu, and A.H. Nur, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Crystal Society, VA, April 1994, Bull.Am.Phys.Soc. **39 (2)**, G7 13, 1119 (1994).
34. "Laser Optogalvanic Transitions of Neon in The Near Ultraviolet and Visible", **P. Misra**, X. Zhu, and A.H. Nur, Paper TA09, 49th International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1994.
35. "Vibrational and Rotational Laser Spectroscopy of Supersonically Cooled Alkoxy and Alkylthio radicals", **P. Misra**, X. Zhu, M.M. Kamal, A.H. Nur, and H.L. Bryant, Jr., Paper MG04, 49th International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1994.
36. "Laser Excited Fluorescence From Organic Dyes Released from Liposomes", **P. Misra**, D.L. VanderMeulen, and K.G. Spears, Paper MF10, 49th International Molecular Spectroscopy Symposium Abstracts, Columbus, OH, June 1994.
37. "Design and Development of an All-Solid-State Laser Unit for Microgravity Combustion Applications", Mohammed M. Kamal, Mark A. Dubinskiy, and **Prabhakar Misra**, NASA Lewis Research Center HBCU Conference Abstracts, Cleveland, OH, March 1995, p. 18.
38. "Rovibronic Spectroscopy of the Ethoxy Radical in a Supersonic Jet Environment", **Prabhakar Misra**, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Washington, DC, April 1995. Bull. Am. Phys. Soc. **40 (2)**, I11 1, 998 (1995).
39. "Time-Resolved Emission Spectroscopy of the Alkoxy Radicals", **Prabhakar Misra**, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, Washington, DC, April 1995. Bull. Am. Phys. Soc. **40 (2)**, I11 15, 1000 (1995).
40. "Determination of Several New Vibrational Frequencies for the Ethoxy Radical", **P. Misra**, X. Zhu, and M.M. Kamal, Paper TJ10, 50th International Molecular Spectroscopy Symposium Abstracts, Columbus, Ohio, June 1995, p. 215.
41. "Fluorescence Lifetimes of Laser-Excited Alkoxy Radicals", **P. Misra**, C. Sandifor, and X. Zhu, Paper TJ11, 50th International Molecular Spectroscopy Symposium Abstracts, Columbus, Ohio, June 1995, p. 216.
42. "Chemical Kinetics of the Reaction of Methoxy with Molecular Oxygen for Various Temperatures, Pressures and Buffer Gases", **P. Misra**, A.H. Nur, and X. Zhu, Paper TJ04, 50th International Molecular Spectroscopy Symposium Abstracts, Columbus, Ohio, June 1995, p. 212.
43. "Measurement of the Rate Constant of the Reaction of Methoxy ( $\text{CH}_3\text{O}$ ) with Nitrogen Dioxide ( $\text{NO}_2$ )," Michael King and **Prabhakar Misra**, American Physical Society March Meeting, St. Louis, MO, March 18-22, 1996.
44. "Experimental Error in the Measurement of the Rate Constant of the Reaction of Methoxy ( $\text{CH}_3\text{O}$ ) with Nitrogen dioxide ( $\text{NO}_2$ )," Michael King and **Prabhakar Misra**, American Physical Society March Meeting, St. Louis, March 18-22, 1996.
45. "FTIR Spectroscopy of  $\text{HNO}_3$  and  $\text{NO}_2$  Relevant to Stratospheric Wake Analysis," R.A. Abina, **P. Misra** and H. Okabe, First National Student Conference, The National Alliance of NASA University Research Centers at Minority Institutions, North Carolina A&T State University, March 31-April 2, 1996.
46. "Free Radical Spectroscopy and Kinetics in Microgravity Combustion," **Prabhakar Misra**, Third Research Conference Sponsored by NASA Lewis Research Center and The Ohio Aerospace Institute, Cleveland, Ohio, April 10-11, 1996.
47. "Flame Characterization Using a Tunable Solid-State Laser with Direct UV Pumping," Mohammed M. Kamal, Mark A. Dubinskii and **Prabhakar Misra**, Third Research Conference Sponsored by NASA Lewis Research Center and The Ohio Aerospace Institute, Cleveland, Ohio, April 10-11, 1996.

48. "Development of An Analytical Unit for Flame Characterization in a Microgravity Environment Using a Tunable Solid-State Laser with Direct UV Pumping," M.A. Dubinskii, **P. Misra**, R.Yu. Abdulsabirov, S.L. Korableva, A.K. Naumov and V.V. Semashko, Conference on Lasers and Electro-Optics (CLEO96), Optical Society of America, Anaheim, CA, June 2-7, 1996.
49. "Analytical Unit for Laser-Induced Fluorescence Flame Characterization Using the LiCaAlF<sub>6</sub>:Ce<sup>3+</sup> Tunable UV Laser", M.A. Dubinskii, **P. Misra**, R.Yu. Abdulsabirov, S.L. Korableva, A.K. Naumov and V.V. Semashko, European Conference on Lasers and Electro-Optics/European Quantum Electronics Conference (CLEO/EUROPE-EQEC '96), Hamburg, Germany, September 8-13, 1996.
50. "Fourier Transform Infrared Spectroscopy of Alkyl Nitrites", **P. Misra**, M.M. Kamal, M. King, E. Dowdye, H. Major and H. Lauziere, Paper TK.1, International Conference on LASERS '96, Portland, Oregon, December 2-6, 1996.
51. "Laser-Initiated Chemical Kinetics Investigations Involving the Alkoxy Radicals", **P. Misra**, M. King, X. Zhu, C. Sandifor and A. Nur, Paper TD.2, International Conference on LASERS '96, Portland, Oregon, December 2-6, 1996.
52. "Laser Spectroscopy of Supersonically-Cooled Alkoxy Radicals", **P. Misra**, Paper TD.3, International Conference on LASERS '96, Portland, Oregon, December 2-6, 1996.
53. "Solid State Laser Platforms for Elucidation of Microgravity Combustion Phenomena", **P. Misra**, Y.B. She and M.A. Dubinskii, Paper TD.4, International Conference on LASERS '96, Portland, Oregon, December 2-6, 1996.
54. "Laser Excited Optogalvanic Transitions in Microgravity Combustion and Free Radical Spectroscopy", **P. Misra** and Y.B. She, Paper TD.5, International Conference on LASERS '96, Portland, Oregon, December 2-6, 1996.
55. "Laser Spectroscopy and Chemical Kinetics Investigations of Transient Molecules of Relevance to Microgravity Combustion", **P. Misra**, Y.-B. She, M. Kamal and M. King, Paper P18, HBCU Research Conference, Ohio Aerospace Institute, Cleveland, Ohio, April 9-10, 1997.
56. "Laser-Induced Fluorescence Excitation Spectra of the Electronic Band Systems of Alkylthio Radicals", C. Haridass, M. Kamal and **P. Misra**, Paper TD10, Abstracts of the 52nd Ohio State University International Symposium on Molecular Spectroscopy, Columbus, Ohio, June 16-20, 1997.
57. "Fourier Transform Infrared (FT-IR) Spectroscopy of Atmospherically Significant Molecules", C. Haridass, J. Jordan, H. Lauziere, M. Kamal and **P. Misra**, Paper WG06, Abstracts of the 52nd Ohio State University International Symposium on Molecular Spectroscopy, Columbus, Ohio, June 16-20, 1997.
58. "The  $\nu_1+\nu_2$  and  $\nu_1+\nu_2-\nu_2$  Bands of <sup>14</sup>NH<sub>3</sub> and <sup>15</sup>NH<sub>3</sub>", S. Urban, **P. Misra** and K.N. Rao, J. Mol. Spectrosc. **114**, 377-394 (1985).
59. "Spectra of NH<sub>3</sub> at 2.5 microns and Some Electronic Bands of CO<sup>+</sup> and NCO", **Prabhakar Misra**, Ph.D. Dissertation, The Ohio State University, Columbus, OH, 1986 (Order #86-25261, University Microfilms International, Ann Arbor, MI 48106).
60. "Analysis of the Bands of the **B** <sup>2</sup>Σ<sup>+</sup> - **X** <sup>2</sup>Σ<sup>+</sup> Transition in <sup>12</sup>C<sup>16</sup>O<sup>+</sup> and <sup>13</sup>C<sup>16</sup>O<sup>+</sup>", **Prabhakar Misra**, D.W. Ferguson, K.N. Rao, E. Williams, Jr. and C.W. Mathews, J. Mol. Spectrosc. **125**, 54-65 (1987).
61. "Analysis of the 00<sup>0</sup>1 **A** <sup>2</sup>Σ<sup>+</sup>-00<sup>1</sup>0 **X** <sup>2</sup>Σ<sup>+</sup> Band of <sup>14</sup>NCO and <sup>15</sup>NCO", **Prabhakar Misra**, C.W. Mathews and D.A. Ramsay, J. Mol. Spectrosc. **130**, 419-423 (1988).
62. "Free Jet-Cooled Laser-Induced Fluorescence Spectrum of Methoxy. 1. Vibronic Analysis of the **A** and **X** States", S.C. Foster, **Prabhakar Misra**, T.-Y. Lin, C.P. Damo, C.C. Carter and T.A. Miller, J. Phys. Chem. **92**, 5914-5921 (1988).

63. "Free Jet-Cooled Laser-Induced Fluorescence Spectrum of Methoxy. 2. Rotational Analysis of the  $A^2A_1-X^2E$  Electronic Transition", X. Liu, C.P. Damo, T.-Y. Lin, S.C. Foster, **Prabhakar Misra**, L.Yu and T.A. Miller, *J. Phys. Chem.* **93**, 2266-2275 (1989).
64. "Quantitative Analysis at the Molecular Level of Laser-Neural Tissue Interactions Using a Liposome Model System", D.L. VanderMeulen, **Prabhakar Misra**, J. Michael, M. Khoka and K.G. Spears, *Proc. SPIE (Society of Photo-Optical Instrumentation Engineers)*, **1428**, 91-98 (1991).
65. "Photorelease of Liposome Contents by Dye-Mediated Localized Heating Induced by Picosecond or Nanosecond Laser Excitation", D.L. VanderMeulen, **P. Misra**, M. Khoka, J. Michael and K.G. Spears, *Biophys. J.* **59**, No. 2, 627a (1991).
66. "Laser-Induced Release of Organic Dyes from Liposomes", **P. Misra**, J. Michael, D.L. VanderMeulen, M. Khoka and K.G. Spears, *Proc. CLEO (Conference on Lasers & Electro-Optics)*, **10**, 78 (1991).
67. "Emission Studies Involving the Formation of (C-X) and (D-X) Band Systems of HgX (X = Cl, Br, I) Radicals", **P. Misra**, A. Michael and V. Kushawaha, *Spectrosc. Lett.* **24** (6), 847-854 (1991).
68. "Chemiluminescent Studies Involving Collisions of  $CHO^+$  Ions and  $CH_4$  Molecules", A. Michael, **P. Misra** and V. Kushawaha. *Appl. Spectrosc.* **46** (5), **797-799** (1992).
69. "Laser Induced Fluorescence Spectroscopy of the Hydroxyl Radical", **Prabhakar Misra**, Xinming Zhu, and Abdullahi H. Nur. *Spectrosc. Lett.* **25** (4), 547-557 (1992).
70. "Rotationally-Resolved Excitation Spectroscopy of the Methoxy Radical in a Supersonic Jet", **Prabhakar Misra**, Xinming Zhu, and Abdullahi H. Nur. *Spectrosc. Lett.* **25** (5), 639-649 (1992).
71. "Electronic Emission Due to Collisions Involving Low Energy  $CHO^+$  and  $H^+$  Ions and  $CH_4$  and  $N_2$  Molecules", A. Michael, **P. Misra**, A. Farah, and V. Kushawaha. *J. Phys. B: At. Mol. Opt. Phys.* **25**, 2343-2350 (1992).
72. "Laser Mediated Release of Dye from Liposomes", D.L. VanderMeulen, **Prabhakar Misra**, J. Michael, K.G. Spears, and M. Khoka. *Photochem. Photobiol.* **56** (3), 325-332 (1992).
73. "Rotationally-Resolved Excitation Spectroscopy of the Alkoxy and Alkylthio Radicals in a Supersonic Jet", **Prabhakar Misra**, Xinming Zhu, Hosie L. Bryant, and Mohammed M. Kamal, Paper **TJ.7**, *Proc. Fifteenth International Conference on Lasers '92*, Houston, TX, 696-701 (1992).
74. "Wavelength-Resolved Emission Spectroscopy of the Alkoxy and Alkylthio Radicals in a Supersonic Jet", **Prabhakar Misra**, Xinming Zhu, Ching-Yu Hsueh, and Mohammed M. Kamal, Paper **TJ.8**, *Proc. Fifteenth International Conference on Lasers '92*, Houston, TX, 702-705 (1992).
75. "Laser-Induced Dye Release from Liposomes: A Model for Drug Delivery and Laser Damage", D.L. VanderMeulen, K.G. Spears, and **Prabhakar Misra**. *Spectroscopy* **8** (2), 48-55 (1993).
76. "Laser Excitation Spectroscopy of the Jet-Cooled Methoxy Radical Amidst Hydroxyl Transitions", **Prabhakar Misra** and Xinming Zhu. *Spectrosc. Lett.* **26** (2), 389-402 (1993).
77. "Dye Release from Laser Irradiated Liposomes", **Prabhakar Misra**, Michael Holt, and Sudhakar Misra. *Spectrosc. Lett.* **26** (2), 375-387 (1993).
78. "Laser Excitation Spectroscopy of Jet-Cooled Alkoxy and Alkylthio Radicals", **P. Misra**, X. Zhu, H.L. Bryant, R. Pai, A.H. Nur, M.M. Kamal, and S. Alagudu, Paper QTuK48, *Proc. CLEO/QELS (Conference on Lasers & Electro-Optics / Quantum Electronics & Laser Science Conference)*, **12**, 122 (1993).
79. "Release of Liposome Contents by Pulsed Laser Excitation of Membrane-Associated Dyes", **P. Misra**, D.L. VanderMeulen, and K.G. Spears, Paper CTuK6, *Proc. CLEO/QELS (Conference on Lasers and Electro-Optics / Quantum Electronics & Laser Science Conference)*, **11**, 126 (1993).
80. "Multicomponent Fluorescence Lifetimes for Dye-Liposome Complexes Using Time-Correlated Photon Counting", **P. Misra**, F.B. Hossain, M. Holt, S. Misra, D.L. VanderMeulen, and K.G. Spears,

- Paper CTuN84, **Proc. CLEO/QELS** (Conference on Lasers and Electro-Optics / Quantum Electronics & Laser Science Conference), **11**, 210 (1993).
81. "Laser Excitation and Emission Spectroscopy of the Methoxy Radical in a Supersonic Jet", **Prabhakar Misra**, Xinming Zhu, Ching-Yu Hsueh, and Joshua B. Halpern. *Chemical Physics* **178**, 377-385 (1993).
  82. "Laser Optogalvanic Wavelength Calibration with a Commercial Hollow Cathode Iron-Neon Discharge Lamp", Xinming Zhu, Abdullahi H. Nur, and **Prabhakar Misra**. *Journal of Quantitative Spectroscopy & Radiative Transfer* **52**, 167-177 (1994).
  83. "Polarity of Laser Excited Optogalvanic Transitions in Neon", Abdullahi H. Nur, Xinming Zhu, and **Prabhakar Misra**. *Spectrosc. Lett.* **28**, 367-377 (1995).
  84. "Laser-Induced Fluorescence Spectroscopy of the Jet-Cooled Methylthio Radical", **Prabhakar Misra**, Xinming Zhu, and Hosie L. Bryant. *Pure and Applied Optics* **4**, 587-598 (1995).
  85. "Laser Spectroscopy of Organic Free Radicals of Environmental and Atmospheric Significance", **Prabhakar Misra**, Xinming Zhu, Abdullahi H. Nur, Mohammed M. Kamal, Hosie L. Bryant, Jr., and Michael King. *Proceedings of the International Conference on LASERS '94*, Society for Optical & Quantum Electronics, STS Press, 1995, pp. 508-513.
  86. "Fluorescence Lifetimes and Kinetics of the Methoxy Radical", Abdullahi H. Nur, Xinming Zhu, Mohammed M. Kamal, Hosie L. Bryant, Jr., Michael King, and **Prabhakar Misra**. *Proceedings of the International Conference on LASERS '94*, Society for Optical & Quantum Electronics, STS Press, 1995, pp. 532-536.
  87. "An Innovative Approach to the Development of a Portable Unit for Analytical Flame Characterization in a Microgravity Environment", Mark A. Dubinskiy, Mohammed M. Kamal, and **Prabhakar Misra**. *Proceedings of the Third International Microgravity Combustion Workshop*, NASA Lewis Research Center, Cleveland, OH, 1995, pp. 263-268.
  88. "Fluorescence Lifetimes of the Alkoxy Radicals", Xinming Zhu, Carron Sandifor, Mohammed M. Kamal, and **Prabhakar Misra**, Paper QMF3, *Proceedings of the Quantum Electronics and Laser Science (QELS) Conference*, Vol. **16**, Optical Society of America Technical Digest Series (OSA, Washington, D.C.), 1995, p. 19.
  89. "Laser-Induced Fluorescence Spectroscopy of the Ethoxy Radical in a Supersonic Jet Expansion", Xinming Zhu, Mohammed M. Kamal, and **Prabhakar Misra**, Paper QMF4, *Proceedings of the Quantum Electronics and Laser Science (QELS) Conference*, Vol. **16**, Optical Society of America Technical Digest Series (OSA, Washington, D.C.), 1995, pp. 19-20.
  90. "Laser-Induced Excitation and Dispersed Fluorescence Spectra of the Ethoxy Radical", Xinming Zhu, Mohammed M. Kamal, and **Prabhakar Misra**. *Pure and Applied Optics*, **5**, 1021-1029 (1996).
  91. "Tb<sup>3+</sup> Ion as a Sensibilizer for Rare-Earth Ions in a Terbium Trifluoride Single Crystal", M.A. Dubinskii, **P. Misra**, B.N. Kazakov, A.L. Stolov, and Zh.S. Yakovleva, *Proceedings of the Advanced Solid-State Lasers Conference*, Optical Society of America and IEEE/Lasers & Electro-Optics Society, 1996, pp. 224-226.
  92. "Laser Excited Spectra of the Jet-Cooled Ethoxy Radical", **Prabhakar Misra**, *Proceedings of the International Conference on LASERS '95*, STS Press, McLean, VA, 1996, pp. 813-817.
  93. "Free Radical Spectroscopy Using the LiCaF<sub>6</sub>:Ce<sup>3+</sup> Laser", Mark A. Dubinskii and **Prabhakar Misra**, *Proceedings of the International Conference on LASERS '95*, STS Press, McLean, VA, 1996, pp. 818-822.
  94. "Laser Excited Optogalvanic Transitions in Neon", **Prabhakar Misra**, Xinming Zhu, and Abdullahi H. Nur, *Proceedings of the International Conference on LASERS '95*, STS Press, McLean, VA, 1996, pp. 823-829.

95. "Chemical Kinetics of the Reaction of Methoxy with Oxygen", **Prabhakar Misra**, Xinming Zhu, and Abdullahi H. Nur, *Proceedings of the International Conference on LASERS '95*, STS Press, McLean, VA, 1996, pp. 830-835.
96. "Elucidation of Free Radical and Optogalvanic Spectroscopy Associated with Microgravity Combustion Via Conventional and Novel Laser Platforms", **P. Misra**, Y.-B. She, X. Zhu and M. King, *Proceedings of the Fourth International Microgravity Combustion Workshop*, NASA Conference Publication 10194, Cleveland, Ohio, 1997, pp. 287-292.
97. "Rare-Earth Doped All-Solid-State Lasers for Ultraviolet Free Radical Spectroscopy", Mark A. Dubinskii and **Prabhakar Misra**, *Spectroscopy* **13(6)**, 33-40 (1998).
98. "Fourier Transform Infrared (FT-IR) Spectroscopy of Trace Molecular Species of Importance for the Elucidation of Atmospheric Phenomena", C. Haridass, Abdullahi Aw-Musse, **P. Misra** and J. Jordan, *Computers & Electrical Engineering* **26**, 47-65 (2000).
99. "Fourier Transform Infrared (FT-IR) Spectroscopy of Trace Atmospheric Species", C. Haridas, A. Aw-Musse and **P. Misra**, *Proceedings of the International Conference on LASERS '97*, STS Press, McLean, VA, 1998, pp. 491-498.
100. "Absorption Cross-Sections of Hydrogen Chloride, Nitric Oxide and Sulfur Dioxide in the 400-4000  $\text{cm}^{-1}$  Region", C. Haridas, A. Aw-Musse and **P. Misra**, *Proceedings of the International Conference on LASERS '97*, STS Press, McLean, VA, 1998, pp. 499-506.
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  175. "Thermal Expansion Properties of Single-Walled Carbon Nanotubes by Raman Spectroscopy at 780 nm wavelength," **P. Misra**, D. Casimir, and R. Garcia-Sanchez. Optoelectronics, Photonics & Applied Physics (OPAP) Meeting, February 4-5, 2013, Singapore.
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187. "Investigations of Thermal Properties of Carbon Nanotubes and Metal Oxide Nanomaterials Using Raman Spectroscopy and Molecular Dynamics Simulations," **P. Misra**, Invited talk at the Tata Institute of Fundamental Research, Colaba, Mumbai, India, February 3, 2015.
188. "Characterization of Nanomaterials Relevant to Energy Storage and Gas Sensing Applications Using Raman Spectroscopy & Molecular Dynamics Simulations," **P. Misra**, D. Casimir, R. Garcia-Sanchez. Invited talk at IC-EEE 2015 Conference held February 4-7, 2015 in Cochin, India.
189. "Targeted Reinvigoration of Critical Key Aspects of the Undergraduate Physics Program in the Department of Physics and Astronomy at Howard University," **P. Misra**, D. Venable, G. Jenkins and B. Demoz. HBCU-UP/CREST PI/PD Meeting held February 18-19, 2015 in Washington, DC.
190. "Raman Spectroscopic Characterization of Carbon Nanotubes & Tungsten Oxide of Relevance to Energy Storage and Gas Sensing Applications," **P. Misra**, D. Casimir, R. Garcia-Sanchez and S. Baliga. TechConnect 2015 Meeting held June 14-17, 2015 in National Harbor, MD.
191. "Raman spectroscopy and molecular simulation studies of graphitic nanomaterials," D. Casimir, R. Garcia-Sanchez and **P. Misra**, in Modeling, Characterization and Production of Nanomaterials: Electronic, Photonics and Energy Applications, Vinod K. Tewary and Yong Zhang (Editors), Woodhead Publishing Series in Electronic and Optical materials, Number 73, Elsevier Ltd., Cambridge, UK, ISBN: 978-1-78242-228-0, 2015, pp. 179-199.
192. "Application, Hiring & Tenure Process for New University Faculty," **P. Misra**, Invited Talk, *Apply for Faculty Positions Seminar Series*, Organized by the National Institute of Standards & Technology (NIST) PostDoc Association, NIST, Gaithersburg, MD, August 20, 2015.

193. "Rayleigh-Plateau Instability of a Water Column aboard 'The Vomit Comet!'" **P. Misra**, Breakfast & Learn Series Invited Talk, Planetary Environments Laboratory/Code 699, NASA Goddard Space Flight Center, October 6, 2015.
194. "Investigation of the Thermal Behavior of Single-Walled Carbon Nanotubes and Tungsten Oxide Nanostructures Using Raman Spectroscopy," **Prabhakar Misra**, Daniel Casimir, Raul Garcia-Sanchez, Christina Craig, Sarah Bartley, and Shankar Baliga, APS March Meeting, Paper S27.00004, Session S27: Carbon Nanotube & Related Materials: Thermal, Mechanical & Other Properties, Baltimore, MD, March 14-18, 2016.
195. "Thermal Characterization of Single-Walled Carbon Nanotubes and Tungsten-Oxide Based Nanomaterials via Raman Spectroscopy," **Prabhakar Misra**, Daniel Casimir, Christina Craig, Raul Garcia-Sanchez, and Shankar Baliga, Chapter in Recent Trends in Materials & Devices, Proceedings ICRTMD 2015, Springer Proceedings in Physics, Series Volume 178, V.K. Jain, S. Rattan, and A. Varma (Eds.), Springer International Publishing, 2017, ISBN 978-3-319-29095-9.
196. "Low Gravity Gas-Liquid Contactor: Effects of Reduced and Zero Gravity on Rayleigh-Plateau Instability," Raul Garcia-Sanchez, Janelle Holmes, Ajamu Abdullah, Aara'L Yarber, Ryan O'Donnell, **Prabhakar Misra**, and Bradley Carpenter, International Journal of Advanced Research in Physical Science (IJARPS), Vol. 4, Issue 2, pp. 28-36, February 2017, ISSN 2349-7874 (Print) & ISSN 2349-7882 (Online).
197. "Rayleigh-Plateau Instability of a Water Column Aboard 'The Vomit Comet!'" **Prabhakar Misra** and Raul Garcia-Sanchez, Hyperwall Talk, Thursday, December 14, 2017, American Geophysical Union (AGU) 2017 Meeting, New Orleans, LA.
198. "Raman Spectroscopy of Graphitic Nanomaterials," Invited Plenary Talk, **Prabhakar Misra**, 1<sup>st</sup> North Indian Science Congress, NISC-2018 & International Conference on *Science and Technology for Sustainable Future*, B.B. Ambedkar University, Lucknow, India, January 10-11, 2018.
199. "Highlighting the Successes of the NASA MOO-Howard University Project," **Prabhakar Misra**, Poster presentation, Annual Sciences & Exploration Directorate (SED/Code 600) Poster Party, NASA Goddard, Bldg 28 Atrium, January 30, 2018.
200. "Research Opportunities for Underrepresented Students in Earth & Space Sciences," **Prabhakar Misra**, Susan Hoban, Belay Demoz, Blanche Meeson and Willam Farrell, Poster PST2B02 Presentation, American Association of Physics Teachers (AAPT) Meeting, Washington, DC, July 28-August 1, 2018.
201. "Lessons Learned from REU Site in Physics at Howard University," **Prabhakar Misra**, Silvina Gatica, Quinton Williams, Pratibha Dev, and Thomas Searles, Contributed Oral Presentation DL12, American Association of Physics Teachers (AAPT) Meeting, Washington, DC, July 28-August 1, 2018.
202. "REU Site in Physics at Howard University," **P. Misra**, S. Gatica, Q. Williams, P. Dev and T. Searles, Poster Presentation, American Geophysical Union (AGU) 2018 Meeting, Washington, DC, December 10-14, 2018.
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207. "Lessons Learned Over Two Program Cycles of the REU Site in Physics at Howard University," **P. Misra**, S. Gatica, Q. Williams, T. Searles, S. Guchhait and P. Dev, eLightning Presentation, Paper ED23E-12, American Geophysical Union (AGU) 2019 Meeting, San Francisco, CA, December 9-13, 2019.
208. "Lessons Learned from Early Opportunities Authentic Research Experiences for Underrepresented Minorities in Earth and Space Sciences," **P. Misra**, W.M. Farrell, B.W. Meeson, S. Hoban, B. Demoz and R. Sakai, eLightning Presentation, Paper ED24B-09, American Geophysical Union (AGU) 2019 Meeting, San Francisco, CA, December 9-13, 2019.
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