

## International Conference Proceedings (with ISBN)

1. S.S.K. Raavi, J. Yin, G. Grancini, L. Giribabu, C. Soci and **S. Venugopal Rao** “Femtosecond to nanosecond excited states dynamics of novel Corroles,” in *12th International Conference on Fiber Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2014), paper M3B.5. (ISBN: 978-1-55752-882-7) <http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2014-M3B.5>
2. N. R. Epuru, S. Sunku, M. K. Gundawar, and **Venugopal Rao Soma**, “Femtosecond Time Resolved Laser Induced Breakdown Spectroscopy Studies of Nitroimidazoles,” in *12th International Conference on Fiber Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2014), paper S5A.30. (ISBN: 978-1-55752-882-7) <http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2014-S5A.30>
3. G. K. Podagatlapalli, S. Hamad, and **Venugopal Rao Soma**, “Fabrication of Hybrid Ag-Au Nanomaterials for Explosives Detection,” in *12th International Conference on Fiber Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2014), paper S5A.51. (ISBN: 978-1-55752-882-7) <http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2014-S5A.51>
4. S. Hamad, G. K. Podagatlapalli, S.V.S. Nageswara Rao, A. P. Pathak, and **Venugopal Rao Soma**, “Excited state dynamics of silicon nanocrystals fabricated using ultrafast laser ablation in liquids,” in *12th International Conference on Fiber Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2014), paper T3A.48. (ISBN: 978-1-55752-882-7) <http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2014-T3A.48>
5. S. Hamad, G. Krishna Podagatlapalli, **S. Venugopal Rao**, “Explosives Detection with Copper Nanostructures Fabricated using Ultrafast Laser Ablation in Acetonitrile,” in *Light, Energy and the Environment*, OSA Technical Digest (online) (Optical Society of America, 2014), paper EF4A.5. (ISBN: 978-1-55752-756-1) <http://www.opticsinfobase.org/abstract.cfm?URI=E2-2014-EF4A.5>
6. G. Krishna Podagatlapalli, S. Hamad, **S. Venugopal Rao**, “Silver Nanomaterials in Aqueous Media Fabricated with Non-diffracting Picosecond Bessel Beam and Applications,” in *Light, Energy and the Environment*, OSA Technical Digest (online) (Optical Society of America, 2014), paper JW6A.13. (ISBN: 978-1-55752-756-1) <http://www.opticsinfobase.org/abstract.cfm?URI=SOLED-2014-JW6A.13>
7. G. Krishna Podagatlapalli, Syed Hamad, **S. Venugopal Rao**, “Fluence Dependent Silver Nanoparticles Fabricated Using Laser Ablation in Aqueous Media,” **IEEE Conference**, Workshop on Recent Advances in Photonics (WRAP), 2013. DOI: [10.1109/WRAP.2013.6917708](https://doi.org/10.1109/WRAP.2013.6917708) (ISBN 978-1-4799-4864-2)
8. S. Hamad, G. Krishna Podagatlapalli, **S. Venugopal Rao**, “Surface Enhanced Fluorescence of Corroles Using Copper Nanoparticles,” **IEEE Conference**, Workshop on Recent Advances in Photonics (WRAP), 2013 DOI: [10.1109/WRAP.2013.6917707](https://doi.org/10.1109/WRAP.2013.6917707) (ISBN 978-1-4799-4864-2)
9. P.T. Anusha, Tridib Sarma, Pradeepta K. Panda, **S. Venugopal Rao**, “Ultrafast dynamics of Naphthosapphyrins: Degenerate and Non-degenerate Pump-Probe Studies,” in *Frontiers in Optics 2013*, I. Kang, D. Reitze, N. Alic, and D. Hagan, eds., OSA Technical Digest (Optical Society of America, 2013), paper FW1A.4. (ISBN: 978-1-55752-987-9) <http://www.opticsinfobase.org/abstract.cfm?URI=FiO-2013-FW1A.4>
10. P.T. Anusha, S. P. Tewari, and **S. Venugopal Rao**, “Ultrafast Dynamics of SI-GaAs and LT-GaAs by Degenerate Pump-Probe Studies,” in *Frontiers in Optics 2013*, P. Delyett, Jr., D. Gauthier, eds., OSA Technical Digest (Optical Society of America, 2013), paper LW5I.3. (ISBN: 978-1-55752-987-9) <http://www.opticsinfobase.org/abstract.cfm?URI=LS-2013-LW5I.3>
11. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Investigation of molecular and elemental species dynamics in NTO, TNT, and ANTA using femtosecond LIBS,” in *Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Sensing XIV*, edited by Augustus Way Fountain **Proc. SPIE Vol. 8710** (SPIE, Bellingham, WA), 871012, 2013. (ISBN: 9780819495013) (2 Citations)
12. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Discrimination methodologies using femtosecond LIBS and correlation techniques,” *Next-Generation Spectroscopic Technologies VI*, edited by Mark A. Druy, Richard A. Crocombe, **Proc. SPIE Vol. 8726** (SPIE, Bellingham, WA), 87260H, 2013. (ISBN: 9780819495174) (3 Citations)
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14. E. Nageswara Rao, S. Sreedhar, Surya P. Tewari, G. Manoj Kumar, and **S. Venugopal Rao**, “CN, C<sub>2</sub> Molecular Emissions from Pyrazoles Studied Using Femtosecond LIBS,” in *International Conference on Fibre Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2012), paper TPo.3. <http://dx.doi.org/10.1364/PHOTONICS.2012.TPo.3> (ISBN 978-1-4673-4718-1) <http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2012-TPo.3>
15. S. Hamad, G. K. Podagatlapalli, A. Hussain, N. Ahmed, S. Sreedhar, and Surya P. Tewari, **S. Venugopal Rao**, “Fabrication of Metal Nano-entities Using Ultrafast Ablation for SERS, Photonics, and Biomedical

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16. S. Venugopal Rao, P.T. Anusha, and Surya P. Tewari, “Ultrafast Degenerate Pump-Probe Studies of SI-GaAs and LT-GaAs,” in *International Conference on Fibre Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2012), paper TPO.5. <http://dx.doi.org/10.1364/PHOTONICS.2012.TPO.5> (ISBN 978-1-4673-4718-1) <http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2012-TPO.5>
  17. K.L.N. Deepak, S. Venugopal Rao, D. Narayana Rao, “Spectroscopic investigation of fs laser-induced defects in polymer and crystal media,” *Laser-Induced Damage in Optical Materials: 2012*, edited by Gregory J. Exarhos, Vitaly E. Gruzdev, Joseph A. Menapace, Detlev Ristau, M J Soileau, **Proc. SPIE**, **8530**, 853004, 2012. (ISBN: 9780819492708) (1 Citation)
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  19. S. Sreeja, V. Rakesh Kumar, Ch. Leela, P. Radhakrishnan, Surya P. Tewari, S. Venugopal Rao, P. Prem Kiran, “Filamentation characteristics of focused fs pulses in atmosphere,” in *Nonlinear Optics and Applications VI*, edited by Benjamin J. Eggleton, Alexander L. Gaeta, Neil G. Broderick, **Proc. SPIE Vol. 8434** (SPIE, Bellingham, WA) 84340U, 2012. (ISBN: 9780819491268).
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36. **S. Venugopal Rao**, P.T. Anusha, T. Shuvan Prashant, D. Swain, Surya P. Tewari, “Ultrafast nonlinear optical properties and excited state dynamics of phthalocyanine thin films,” in *Organic Photonic Materials and Devices XIII*, edited by Robert L. Nelson, François Kajzar, Toshikuni Kaino, Yasuhiro Koike, **Proc. SPIE**, **7935** (SPIE, Bellingham, WA) 793517-1, 2011. (ISBN: 9780819484727) (3 citations).
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45. K.C. Vishnubhatla, **S. Venugopal Rao**, R.S.S. Kumar, S.N.B. Bhaktha, A. Chiappini, A. Chiasera, J. Laureyns, M. Ferrari, M. Mattarelli, M. Montagna, R. Osellame, R. Ramponi, G.C. Righini, S. Turrell, D. Narayana Rao, “Micro-Raman mapping of micro-gratings in ‘BACCARAT’ glass directly written using femtosecond laser,” in *Commercial and Biomedical Applications of Ultrafast Lasers VIII*, edited by Joseph Neev, Stefan Nolte, Alexander Heisterkamp, Christopher B. Schaffer, **Proc. SPIE**, **6881**, 688114-1 to 688114-10, 2008. (4 citations) (ISBN: 9780819470560).
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## International Conference Presentations

1. K.V. Anil Kumar, K. Kumara, S.M. Dharmaprakash, **S. Venugopal Rao**, “Picosecond third-order nonlinear optical investigations of Tetra-tertbutyl phthalocyanine thin films,” International Conference on Smart Materials and Technologies for Emerging Electronics, (IC-SMTEE-2016), February 19-20, 2016, Sahyadri Engineering College and Management, Mangalore, India. (POSTER)
2. G. Krishna Podagatlapalli, S. Hamad, **S. Venugopal Rao**, “Femtosecond Detection of an Explosive Molecule 1-Nitropyrazole Using Surface Enhanced Raman Scattering and Picosecond Laser Ablated Silver Targets,” **HEMCE-2016**, 10<sup>th</sup> International High Energy Materials Conference and Exhibit, 11-13 February 2016, Max Club and Resort, Hyderabad, Telangana, India. (POSTER)
3. U. Pasha Shaik, S. Hamad, M.A. Mohiddon, **S. Venugopal Rao**, “Ag Decorated ZnO Nanostructures as Surface Enhanced Raman Scattering Substrates for Trace Level Detection of Explosives,” M. Ghanashyam Krishna, **HEMCE-2016**, 10<sup>th</sup> International High Energy Materials Conference and Exhibit, 11-13 February 2016, Max Club and Resort, Hyderabad, Telangana, India. (POSTER)
4. B. Chandu, S. Abdul Kalam, **S. Venugopal Rao**, “Silver-Gold Alloy Nanoparticles and Nanostructures Fabricated by Femtosecond Ablation for Detection of Ammonium Nitrate and Ammonium Perchlorate,” **HEMCE-2016**, 10<sup>th</sup> International High Energy Materials Conference and Exhibit, 11-13 February 2016, Max Club and Resort, Hyderabad, Telangana, India. (POSTER)
5. Monima Sarma, Tanmay Chatterjee, B. Ramakrishna, Syed Hamad, **S. Venugopal Rao**, Dinesh Khara, and Samar K. Das, “Cyclometalated Iridium(III) Complexes Containing 4,4'- $\pi$ -Conjugated-2,2'-bipyridine Derivatives as the Ancillary Ligands: Synthesis, Photophysics and Computational Studies,” 16<sup>th</sup> International Symposium on Modern Trends in Inorganic Chemistry (**MTIC-XVI**), Jadavpur University, December 03-05, 2015, India. (POSTER)
6. V.S. Vendamani, M. Dhanunjaya, **S. Venugopal Rao**, A.P. Pathak, S.V.S. Nageswara Rao, “Ion beam characterization and modification of silicon nanoparticles and nanostructures,” International Conference on Nanostructuring by Ion Beams (**ICNIB**), November 23-25, Dr. B.R. Ambedkar University, Agra, 2015. (INVITED)
7. A. Rambabu, E. Sivanagi Reddy, S. Hamad, K.C. James Raju, **S. Venugopal Rao**, “Linear and nonlinear optical properties of RF sputtered SrBi<sub>4</sub>Ti<sub>4</sub>O<sub>15</sub> thin films,” International Conference on Condensed Matter and Applied Physics (**ICC-2015**), October 30-31, Engineering College Bikaner, Bikaner, Rajasthan, 2015. (POSTER)
8. A. Tumuluri, M. Rapolu, **S. Venugopal Rao**, K. C. James Raju, “Third order nonlinearity in pulsed laser deposited LiNbO<sub>3</sub> thin films,” International Conference on Condensed Matter and Applied Physics (**ICC-2015**), October 30-31, Engineering College Bikaner, Bikaner, Rajasthan, 2015. (POSTER)
9. V.S. Vendamani, S. Hamad, A.P. Pathak, **S. Venugopal Rao**, V.V. Ravi Kanth Kumar, M. Breese, Saif K. Khan, S.V.S. Nageswara Rao, “Porous Silicon as a Seed Material for Preparing Silicon Nanoparticles and Nanostructures,” 8<sup>th</sup> International Conference on Materials for Advanced Technologies (**ICMAT-2015**), 28 June-03 July 2015, Suntec, Singapore. (ORAL)
10. S.S.K. Raavi, G. Grancini, J. Yin, L. Giribabu, C. Soci and **S. Venugopal Rao**, “Comprehensive photo-physics investigation of novel Corroles,” SPIE Photonics West, San Francisco, California, USA, 7-12 February, 2015. (POSTER)
11. S.S.K. Raavi, G. Grancini, J. Yin, L. Giribabu, C. Soci and **S. Venugopal Rao**, “Femtosecond and Nanosecond excited state dynamics of novel Corroles,” 12<sup>th</sup> International conference on fiber optics and photonics (**Photonics 2014**), 13-16 December 2014, IIT Kharagpur, India. (ORAL)
12. S. Hamad, G. Krishna Podagatlapalli, S.V.S. Nageswara Rao, A.P. Pathak, **S. Venugopal Rao**, “Excited state dynamics of silicon nanocrystals fabricated using ultrafast laser ablation in liquids,” 12<sup>th</sup> International conference on fiber optics and photonics (**Photonics 2014**), 13-16 December 2014, IIT Kharagpur, India. (POSTER)
13. G. Krishna Podagatlapalli, S. Hamad, **S. Venugopal Rao**, “Fabrication of Hybrid Ag-Au Nanomaterials for Explosives Detection,” 12<sup>th</sup> International conference on fiber optics and photonics (**Photonics 2014**), 13-16 December 2014, IIT Kharagpur, India. (POSTER)
14. E. Nageswara Rao, S. Sreedhar, G. Manoj Kumar, **S. Venugopal Rao**, “Femtosecond Time Resolved Laser Induced Breakdown Spectroscopy Studies of Nitroimidazoles,” 12<sup>th</sup> International conference on fiber optics and photonics (**Photonics 2014**), 13-16 December 2014, IIT Kharagpur, India. (POSTER).
15. G. Krishna Podagatlapalli, S. Hamad, **S. Venugopal Rao**, “Ag nanomaterials fabricated through laser ablation in aqueous media using an Axicon,” 2<sup>nd</sup> International conference on **Frontiers in Nanoscience, Technology and Applications (FINSTAA)**, December 20-22, 2014, Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam, A.P., India. (POSTER) (**RECEIVED MRS Singapore BEST PAPER AWARD**)

16. S. Hamad, G. Krishna Podagatlapalli, **S. Venugopal Rao**, "Nonlinear optical studies of boron doped Silicon nanocrystals generated by ultrashort laser pulses," 2<sup>nd</sup> International conference on **Frontiers in Nanoscience, Technology and Applications (FINSTAA)**, December 20-22, 2014, Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam, A.P., India. **(POSTER)**
17. S. Hamad, G. Krishna Podagatlapalli, **S. Venugopal Rao**, "Explosives Detection with Copper Nanostructures Fabricated using Ultrafast Laser Ablation in Acetonitrile," International Optics and Photonics Congress on "Light, Energy and the Environment" (**LEE 2014**), OSA, Australia on 2-5 December 2014. **(ORAL)**
18. G. Krishna Podagatlapalli, S. Hamad, **S. Venugopal Rao**, "Silver Nanomaterials in Aqueous Media Fabricated with Non-diffracting Picosecond Bessel Beam and Applications," International Optics and Photonics Congress on "Light, Energy and the Environment" (**LEE 2014**), OSA, Australia on 2-5 December 2014. **(POSTER)**
19. S. Adbul Kalam, E. Nageswara Rao, **S. Venugopal Rao**, "Time Resolved Studies of Nitrates with Nanosecond Laser Induced Breakdown Spectroscopy," 8<sup>th</sup> International conference on laser induced breakdown spectroscopy, Sept. 08-12, 2014, Tsinghua University, Beijing, China. **(POSTER)**
20. E. Nageswara Rao, S. Sreedhar, S. Adbul Kalam, G. Manoj Kumar, **S. Venugopal Rao**, "Time resolved and spectral analysis of Nitroimidazoles Studied with Femtosecond and Nanosecond Laser Induced Breakdown Spectroscopy," 8<sup>th</sup> International conference on laser induced breakdown spectroscopy, Sept. 08-12, 2014, Tsinghua University, Beijing, China. **(POSTER)**
21. S. Hamad, G. Krishna Podagatlapalli, **S. Venugopal Rao**, "Multiple usage of ultrafast laser induced copper substrates for explosives detection using SERS," XXIV International conference on Raman spectroscopy (ICORS), 10-15 August 2014, Friedrich Schiller University, Jena, Germany. **(POSTER)**
22. G. Krishna Podagatlapalli, S. Hamad, **S. Venugopal Rao**, "Detection of secondary explosives using ultrafast laser ablated silver nanostructures and SERS," XXIV International conference on Raman spectroscopy (ICORS), 10-15 August 2014, Friedrich Schiller University, Jena, Germany. **(POSTER)**
23. R.S.S. Kumar, G. Grancini, L. Giribabu, and **S. Venugopal Rao**, "Comprehensive photo-physics investigation of novel Corroles," Light in Materials, Chemistry, and Biology (LCMB-2014 an international conference), February 24-25, 2014, Department of Chemistry, IIT Kharagpur, India. **(ORAL)**
24. E. Nageswara Rao, S. Sreedhar, G. Manoj Kumar, **S. Venugopal Rao**, "CN, C<sub>2</sub> Molecular Bands of Nitroimidazoles Investigated with Femtosecond Laser Induced Breakdown Spectroscopy Technique," HEMCE 2014, 9<sup>th</sup> International High Energy Materials Conference and Exhibit, 13-15 February 2014, Vikram Sarabhai Space Centre, Thiruvananthapuram, Kerala. **(ORAL)**
25. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, **S. Venugopal Rao**, "Methodologies for Classification of High Energy Materials using Laser Induced Breakdown Spectroscopy," HEMCE 2014, 9<sup>th</sup> International High Energy Materials Conference and Exhibit, 13-15 February 2014, Vikram Sarabhai Space Centre, Thiruvananthapuram, Kerala. **(POSTER)**
26. G. Krishna Podagatlapalli, Syed Hamad, **S. Venugopal Rao**, "Near field detection of RDX, TNT, CL-20 and ANTA through surface enhanced Raman scattering using picosecond laser ablated silver targets in aqueous media," HEMCE 2014, 9<sup>th</sup> International High Energy Materials Conference and Exhibit, 13-15 February 2014, Vikram Sarabhai Space Centre, Thiruvananthapuram, Kerala. **(ORAL)**
27. P.T. Anusha, L. Giribabu, S. Venugopal Rao, "Theoretical and Experimental Nonlinear Absorption Studies in Presence of High Energy Materials: A Case Study of Zn Phthalocyanine," HEMCE 2014, 9<sup>th</sup> International High Energy Materials Conference and Exhibit, 13-15 February 2014, Vikram Sarabhai Space Centre, Thiruvananthapuram, Kerala. **(ORAL)**  
**(ADJUDICATED BEST ORAL PRESENTATION AWARD)**
28. G. Krishna Podagatlapalli, Syed Hamad, **S. Venugopal Rao**, "Efficient detection of secondary explosives using SERS from plasmonic nanostructures fabricated with ultrashort laser pulses," Workshop on High Energy Density Sciences (HEDS) in Asia, Busan, Korea, 19-22 January 2014. **(POSTER)**
29. G. Krishna Podagatlapalli, Syed Hamad, **S. Venugopal Rao**, "Fluence Dependent Silver Nanoparticles Fabricated Using Laser Ablation in Aqueous Media," Workshop on Recent Advances in Photonics (WRAP 2013), Physics Department, Indian Institute of Technology Delhi, New Delhi, India, December 17-18, 2013. **(POSTER)**
30. Syed Hamad, G. Krishna Podagatlapalli, **S. Venugopal Rao**, "Surface Enhanced Fluorescence of Corroles Using Copper Nanoparticles," Workshop on Recent Advances in Photonics (WRAP 2013), Physics Department, Indian Institute of Technology Delhi, New Delhi, India, December 17-18, 2013. **(POSTER)**
31. E. Nageswara Rao, Sreedhar Sunku, G. Manoj Kumar, **S. Venugopal Rao**, "Discrimination Analysis of Nitroimidazoles Studied with Femtosecond Laser Induced Breakdown Spectroscopy," NASLIBS 2013 meeting at SciX, September 29-October 4, 2013, Hyatt Regency Hotel and Wisconsin Center, Milwaukee, WI, USA. **(POSTER)**
32. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, "Time-resolved Spectral Emission Studies of Nitrogen Rich Organic Energetic Materials with Femtosecond and Nanosecond LIBS Techniques," Seventh Euro-Mediterranean Symposium on Laser Induced Breakdown Spectroscopy (EMSLIBS), Bari, Italy, September 16-20 2013. Organized by Department of Chemistry of University of Bari and the (IMIP-CNR) **(ORAL)**
33. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, "Spatio-Temporal Study of Nanosecond Laser Induced Breakdown Spectroscopy of High Energy Materials," Seventh Euro-Mediterranean Symposium on Laser Induced Breakdown Spectroscopy (EMSLIBS), Bari, Italy, September 16-20 2013 Organized by Department of Chemistry of University of Bari and the (IMIP-CNR). **(POSTER)**
34. E. Nageswara Rao, S. Sreedhar, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, "Ratiometric Analysis of Nitropyrazoles Studied with Femtosecond Laser Induced Breakdown Spectroscopy," Seventh Euro-Mediterranean Symposium on Laser Induced Breakdown Spectroscopy (EMSLIBS), Bari, Italy, September 16-20 2013 Organized by Department of Chemistry of University of Bari and the (IMIP-CNR). **(POSTER)**
35. V.S. Vendamani, S. Hamad, **S. Venugopal Rao**, Surya P. Tewari, A. P. Pathak, S.V.S. Nageswara Rao, "Ion Beam Studies of Silicon Nanoparticles produced by Ultrashort Laser Ablation," The 21<sup>st</sup> International Conference on Ion Beam Analysis (IBA - 2013), June 23-28, 2013, Seattle, WA, USA. **(POSTER)**
36. S. Hamad, V. S. Vendamani, R. Brahad, S.V.S. Nageswara Rao, Surya P. Tewari, and A P Pathak, **S. Venugopal Rao**, "Ultrafast Laser Generated Silicon Nanocrystals and Nanostructures," 7<sup>th</sup> International Conference on Materials for Advanced Technologies (ICMAT), 30 June-05 July 2013, Suntec, Singapore. **(ORAL)**

37. G. Krishna Podagatlapalli, Syed Hamad, Surya P. Tewari, **S. Venugopal Rao**, “Nanoscale Silver and Copper Fabricated Using Ultrafast Laser Ablation in Liquids for SERS Studies of Explosives,” 7<sup>th</sup> International Conference on Materials for Advanced Technologies (**ICMAT**), 30 June-05 July 2013, Suntec, Singapore. (**POSTER**)
38. V.S. Vendamani, **S. Venugopal Rao**, A. P. Pathak, S.V.S. Nageswara Rao, “Swift Heavy Ion Induced and Rapid Thermal Annealing Effects on Optical Properties of Prous Silicon,” 7<sup>th</sup> International Conference on Materials for Advanced Technologies (**ICMAT**), 30 June-05 July 2013, Suntec, Singapore. (**POSTER**)
39. V.S. Vendamani, **S. Venugopal Rao**, A. P. Pathak, S.V.S. Nageswara Rao, “Effects of Heat Treatment on Nano-structured Porous Silicon,” 7<sup>th</sup> International Conference on Materials for Advanced Technologies (**ICMAT**), 30 June-05 July 2013, Suntec, Singapore. (**ORAL**)
40. G. Krishna Podagatlapalli, Syed Hamad, Surya P. Tewari, **S. Venugopal Rao**, “Nanoscale silver and copper fabricated using ultrafast laser ablation in liquids for SERS studies of explosives,” INDO-US International Workshop on Nanosensor Science & Technology (**IWNST-2013**) 27th February - 1st March, 2013, Berhampur, Odisha, India. (**RECEIVED FIRST BEST POSTER AWARD**)
41. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Investigation of molecular and elemental species dynamics in NTO, TNT, and ANTA using femtosecond LIBS,” **SPIE Defence Security & Sensing**, 29 April – 03 May 2013, Baltimore, Maryland, USA. (**ORAL**)
42. S. Sreedhar, E. Nageswara Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Discrimination methodologies using femtosecond LIBS and correlation techniques,” **SPIE Defence Security & Sensing**, 29 April – 03 May 2013, Baltimore, Maryland, USA. (**ORAL**)
43. E. Nageswara Rao, S. Sreedhar, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “CN, C<sub>2</sub> emission studies of methyl- and dinitro-imidazoles using femtosecond LIBS technique,” **SPIE Defence Security & Sensing**, 29 April – 03 May 2013, Baltimore, Maryland, USA. (**POSTER**)
44. E. Nageswara Rao, S. Sreedhar, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Femtosecond LIBS studies of Nitropyrazoles,” **SPIE Defence Security & Sensing**, 29 April – 03 May 2013, Baltimore, Maryland, USA. (**POSTER**)
45. **S. Venugopal Rao**, G. Krishna Podagatlapalli, Syed Hamad, S. Sreedhar, Surya P. Tewari, “Ultrafast Laser Ablation: Creating Nanoparticles and Nanostructures for Applications in Photonics and Surface Enhanced Raman Scattering,” Second International Conference on Advanced in Materials Processing and Characterization (**AMPC2013**), Anna University, Chennai, February 6-8, 2013. (**ORAL**)
46. P.T. Anusha, D. Swain, Surya P. Tewari, **S. Venugopal Rao**, “Ultrafast Degenerate Pump-Probe Studies of SI-GaAs and LT-GaAs,” **Photonics West**, 2-7 February 2013, San Francisco, California, USA. (**POSTER**)
47. P.T. Anusha, L. Giribabu, Surya P. Tewari, **S. Venugopal Rao**, “Nonlinear optical studies of Zn Phthalocyanine in the presence of high energy materials,” **Photonics West**, 2-7 February 2013, San Francisco, California, USA. (**POSTER**)
48. P.T. Anusha, Surya P. Tewari, **S. Venugopal Rao**, “Ultrafast Degenerate Pump-Probe Studies of SI-GaAs and LT-GaAs,” **Photonics 2012, International Conference on Fiber Optics and Photonics**, December 09-12, 2012, IIT Madras, Chennai, India. (**POSTER**)
49. Syed Hamad, G. Krishna Podagatlapalli, Arif Hussain, Niyaz Ahmad, S. Sreedhar, Surya P. Tewari, **S. Venugopal Rao**, “Fabrication of Metal Nano-entities Using Ultrafast Ablation for SERS, Photonics, and Biomedical Applications,” **Photonics 2012, International Conference on Fiber Optics and Photonics**, December 09-12, 2012, IIT Madras, Chennai, India. (**POSTER**)
50. E. Nageswara Rao, S. Sreedhar, M. Ashwin Kumar, G. Manoj Kumar, **S. Venugopal Rao**, “CN, C<sub>2</sub> Molecular Emissions from Pyrazole Studied Using Femtosecond LIBS,” **Photonics 2012, International Conference on Fiber Optics and Photonics**, December 09-12, 2012, IIT Madras, Chennai, India. (**POSTER**)
51. S. Sreedhar, E. Nageswar Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Femtosecond LIBS studies of NTO, TNT, and CL-20,” **7th International Conference on Laser Induced Breakdown Spectroscopy (LIBS 2012)**, Luxor, Egypt, 29 September - 4 October, 2012. (**POSTER**)
52. S. Sreedhar, E. Nageswar Rao, G. Manoj Kumar, Surya P. Tewari, **S. Venugopal Rao**, “Discrimination of organic high energy materials with nanosecond LIBS technique using elemental/molecular ratios,” **7th International Conference on Laser Induced Breakdown Spectroscopy (LIBS 2012)**, Luxor, Egypt, 29 September - 4 October, 2012. (**POSTER**)
53. Syed Hamad, G. Krishna Podagatlapalli, S. Sreedhar, Surya P. Tewari, **S. Venugopal Rao**, “Surface enhanced Raman scattering studies from stable copper colloids fabricated by laser ablation,” **23<sup>rd</sup> International Conference on Raman spectroscopy (ICORS - 2012)**, 12-17 August, 2012, IISc, Bangalore, INDIA. (**POSTER**)
54. G. Krishna Podagatlapalli, Syed Hamad, S. Sreedhar, Surya P. Tewari, **S. Venugopal Rao**, “Fabrication of silver nano-entities through ultrafast laser ablation and their characterization for SERS applications,” **23<sup>rd</sup> International Conference on Raman spectroscopy (ICORS - 2012)**, 12-17 August, IISc, Bangalore, INDIA. (**POSTER**)
55. S. Sreeja, V. Rakesh Kumar, Ch. Leela, P. Radhakrishnan, Surya P. Tewari, **S. Venugopal Rao**, P. Prem Kiran, “Filamentation characteristics of focused fs pulses in atmosphere,” **SPIE Photonics Europe**, 16-20 April 2012, Brussels, Belgium. (**ORAL**)
56. S. Sreeja, T. Shuvan Prashant, P. Radhakrishnan, Surya P. Tewari, **S. Venugopal Rao**, P. Prem Kiran, “Effect of focusing lens tilt on SCE and filamentation characteristics of fs pulses in air,” **SPIE Photonics Europe**, 16-20 April 2012, Brussels, Belgium. (**ORAL**)
57. P.T. Anusha, D. Swain, T. Sarma, Pradeepta K. Panda, **S. Venugopal Rao**, “Ultrafast nonlinear optical studies of Cyclo[4]naphthobipyrroles,” **SPIE Photonics Europe**, 16-20 April 2012, Brussels, Belgium. (**POSTER**)
58. **S. Venugopal Rao**, “Phthalocyanines, Porphycenes, and Corroles: Nonlinear optical properties and ultrafast dynamics,” **SPIE Photonics Europe**, 16-20 April 2012, Brussels, Belgium. (**POSTER**)
59. **S. Venugopal Rao**, S. Sreedhar, G. Manoj Kumar, M. Ashwin Kumar, P. Prem Kiran, Surya P. Tewari, “Laser Induced Breakdown Spectroscopic studies of HEM's using nanosecond and femtosecond pulses,” **15<sup>th</sup> International seminar on New Trends in Research of Energetic Materials (NTREM 2012)**, University of Pardubice, Pardubice, Czech Republic, April 18-20, 2012. (**ORAL**)

60. S. Sreeja, **S. Venugopal Rao**, P. Radhakrishnan, Surya P. Tewari, P. Prem Kiran, "Supercontinuum emission from water using fs pulses in the external tight focusing limit," **SPIE Photonics West**, 21-26 January 2012, San Francisco, California, USA. **(POSTER)**
61. Syed Hamad, G. Krishna Podagatlapalli, Surya P. Tewari, **S. Venugopal Rao**, "Femtosecond ablation of Aluminum for synthesis of nanoparticles and nanostructures and their optical characterization," **SPIE Photonics West**, 21-26 January 2012, San Francisco, California, USA. **(POSTER)**
62. D. Swain, Anup Rana, Pradeepta K. Panda, **S. Venugopal Rao**, "Ultrafast nonlinear optical studies of 3,8,13,18-Tetrachloro-2,7,12,17-tetramethoxy porphyrin and its derivatives," **SPIE Photonics West**, 21-26 January 2012, San Francisco, California, USA. **(POSTER)**
63. Syed Hamad, G. Krishna Podagatlapalli, L. Giribabu, Surya P. Tewari, **S. Venugopal Rao**, "Femtosecond and picosecond nonlinear optical studies of Corroles," **SPIE Photonics West**, 21-26 January 2012, San Francisco, California, USA. **(POSTER)**
64. V. Rakesh Kumar, S. Sreeja, Ch. Leela, Surya P. Tewari, **S. Venugopal Rao**, P. Prem Kiran, "Sharply focused femtosecond pulses in atmosphere – Filamentation characteristics," **TC 2012, BRNS-ISAMP** Topical conference on Interaction of lasers with atoms, molecules, and clusters, University of Hyderabad, Hyderabad, January 09-12, 2012. **(POSTER)** **(RECEIVED BEST POSTER AWARD)**
65. S. Sreeja, Ch. Leela, V. Rakesh Kumar, **S. Venugopal Rao**, P. Radhakrishnan, Surya P. Tewari, P. Prem Kiran, "Effect of external tight focusing and temperature on the Supercontinuum emission from water," **TC 2012, BRNS-ISAMP** Topical conference on Interaction of lasers with atoms, molecules, and clusters, University of Hyderabad, Hyderabad, January 09-12, 2012. **(POSTER)**
66. D. Swain, P.T. Anusha, T. Shuvan Prashant, T. Sarma, Pradeepta K. Panda, Surya P. Tewari, **S. Venugopal Rao**, "Femtosecond and picosecond dynamics in Dinaphthoporphycenes investigated using pump-probe technique," **TC 2012, BRNS-ISAMP** Topical conference on Interaction of lasers with atoms, molecules, and clusters, University of Hyderabad, Hyderabad, January 09-12, 2012. **(POSTER)**
67. S. Sreedhar, M. Ashwin Kumar, G. Manoj Kumar, P. Prem Kiran, Surya P. Tewari, **S. Venugopal Rao**, "Molecular signatures in LIBS spectra of RDX, HMX, NTO studied using nanosecond and femtosecond Pulses," **TC 2012, BRNS-ISAMP** Topical conference on Interaction of lasers with atoms, molecules, and clusters, University of Hyderabad, Hyderabad, January 09-12, 2012. **(POSTER)**
68. D. Swain, P.T. Anusha, Syed Hamad, L. Giribabu, Surya P. Tewari, **S. Venugopal Rao**, "Femtosecond pump-probe spectroscopy of novel Corroles," **International Workshop on Functional Materials (IWFm-2011)**, NIST, Berhampur, Odisha, December 20-22, 2011. **(POSTER)**
69. D. Swain, P.T. Anusha, T. Shuvan Prashant, T. Sarma, Pradeepta K. Panda, Surya P. Tewari, **S. Venugopal Rao**, "Ultrafast excited state dynamics of Dinaphthoporphycenes," **MTIC-IV**, Modern Trends in Inorganic Chemistry, University of Hyderabad, Hyderabad, December 10-13, 2011. **(POSTER)**
70. G. Krishna Podagatlapalli, Syed Hamad, Surya P. Tewari, **S. Venugopal Rao**, "Fabrication and characterization of Aluminum nanostructures using femtosecond ablation technique," **International conference on advanced nanomaterials and nanotechnology (ICANN 2011)**, IIT Guwahati, December 8-10, 2011. **(POSTER)**
71. P.T. Anusha, D. Swain, Surya P. Tewari, S. Venugopal Rao, "Ultrafast degenerate pump-probe studies of Si-GaAs." **XXXVI OSI SYMPOSIUM** on Frontiers in Optics and Photonics (FOP11), IIT Delhi, December 3-5, 2011. **(RECEIVED AWARD FOR EXCELLENCE IN POSTER PRESENTATION)**
72. S. Sreeja, **S. Venugopal Rao**, P. Radhakrishnan, Surya P. Tewari, P. Prem Kiran, "Supercontinuum emission from water soluble dyes," **XXXVI OSI symposium on Frontiers in Optics and Photonics (FOP11)**, IIT Delhi, New Delhi, December 3-5, 2011.
73. S. Sreedhar, M. Ashwin Kumar, G. Manoj Kumar, P. Prem Kiran, Surya P. Tewari, **S. Venugopal Rao**, "Laser Induced Breakdown Spectroscopy of RDX, HMX, NTO Using Nanosecond and Femtosecond Pulses," **8<sup>th</sup> International High Energy Materials Conference and Exhibit (HEMCE 2011)**, 10-12 November, Terminal Ballistics Research Laboratory, Chandigarh, India. **(ORAL)**
74. S. Sreedhar, M. Ashwin Kumar, G. Manoj Kumar, P. Prem Kiran, Surya P. Tewari, **S. Venugopal Rao**, "LIBS studies on Nitromethane and simple liquid fuels using nanosecond pulses," **8<sup>th</sup> International High Energy Materials Conference and Exhibit (HEMCE 2011)**, 10-12 November, Terminal Ballistics Research Laboratory, Chandigarh, India. **(POSTER)**
75. M. Ashwin Kumar, S. Sreedhar, **S. Venugopal Rao**, Surya P. Tewari, P. Prem Kiran, G. Manoj Kumar, "Strategies for Identification of High Energy Materials using Laser Induced Breakdown Spectroscopy using Chemometric Techniques," **8<sup>th</sup> International High Energy Materials Conference and Exhibit (HEMCE 2011)**, 10-12 November, Terminal Ballistics Research Laboratory, Chandigarh, India. **(POSTER)**
76. M. Ashwin Kumar, S. Sreedhar, **S. Venugopal Rao**, Surya P. Tewari, P. Prem Kiran, G. Manoj Kumar, "Strategies for Identification of High Energy Materials using Laser Induced Breakdown Spectroscopy - Ratiometric Method," **8<sup>th</sup> International High Energy Materials Conference and Exhibit (HEMCE 2011)**, 10-12 November, Terminal Ballistics Research Laboratory, Chandigarh, India. **(POSTER)**
77. Syed Hamad, S. Sreedhar, G. Krishna Podagatlapalli, Surya P. Tewari, G. Manoj Kumar, **S. Venugopal Rao**, "Synthesis and characterization of Aluminum nanoparticles obtained using femtosecond laser ablation," **8<sup>th</sup> International High Energy Materials Conference and Exhibit (HEMCE 2011)**, 10-12 November, Terminal Ballistics Research Laboratory, Chandigarh, India. **(POSTER)** **(RECEIVED FIRST BEST POSTER AWARD)**
78. G. Krishna Podagatlapalli, Syed Hamad, Surya P. Tewari, **S. Venugopal Rao**, "Femtosecond laser ablation of bulk aluminum in liquids: Generation of nanoparticles and nanostructures," presented at International workshop on **Recent Trends in Nanophotonics**, IIT Delhi, New Delhi, 30 September -01 October 2011. **(POSTER)**
79. S. Sreedhar, M. Ashwin Kumar, G. Manoj Kumar, P. Prem Kiran, Surya P. Tewari, **S. Venugopal Rao**, "Laser induced breakdown spectroscopic studies on Nitromethane and simple liquid fuels using nanosecond pulses," **6<sup>th</sup> Euro-Mediterranean Symposium on Laser Induced Breakdown Spectroscopy**, EMSLIBS 2011 11-15 September 2011, Cesme, Izmir, Turkey. **(POSTER)**

80. K.L.N. Deepak, **S. Venugopal Rao**, D. Narayana Rao, "Femtosecond laser micro-fabrication in polymers towards memory devices and microfluidic applications," **SPIE Laser Damage Symposium**, 18-21 September 2011, National Institute of Standards and Technology, Bldg. 1, Boulder, Colorado, USA. (ORAL)
81. M. Ashwin Kumar, S. Sreedhar, I. Barman, N.C. Dingari, **S. Venugopal Rao**, P. Prem Kiran, Surya P. Tewari and G. Manoj Kumar, "Laser Induced Breakdown Spectroscopy – A Discrimination Tool for Pharmaceutical Applications," **NASLIBS 2011**, July 18-20, Florida, USA. (POSTER)
82. S. Sreedhar, M. Ashwin Kumar, G. Manoj Kumar, P. Prem Kiran, Surya P. Tewari and **S. Venugopal Rao**, "Molecular and Elemental Spectral Emission Studies of High Energy Materials with Femtosecond and Nanosecond Laser Induced Breakdown Spectroscopy," **NASLIBS 2011**, July 18-20, Florida, USA. (POSTER)
83. K.L.N. Deepak, **S. Venugopal Rao**, D. Narayana Rao, "Microfabrication in bulk and thin films of PMMA, PDMS, PS, and PVA and their spectroscopic characterizations towards lab-on-a-chip device applications," **Lab-on-a-chip European congress**, Hamburg, Germany, 30 June -01 July 2010. (POSTER)
84. S. Sreeja, **S. Venugopal Rao**, S. Bagchi, S. Sreedhar, T. Shuvan Prashant, P. Radhakrishnan, Surya P. Tewari, P. Prem Kiran, "Supercontinuum Emission from Focused Femtosecond Laser Pulses in Air," **Optics'11-A conference on light**, May 23-25, 2011, Calicut, Kerala, India. (ORAL)
85. S. Sreeja, **S. Venugopal Rao**, S. Bagchi, S. Sreedhar, T. Shuvan Prashant, P. Radhakrishnan, Surya P. Tewari, P. Prem Kiran, "Supercontinuum Emission from Water using 40 fs pulses in the External Tight Focusing Limit," **Optics'11-A conference on light**, May 23-25, 2011, Calicut, Kerala, India. (ORAL)
86. D. Swain, P.T. Anusha, T. Shuvan Prashant, Surya P. Tewari, Tridib Sarma, Pradeepta K. Panda, **S. Venugopal Rao**, "Multiphoton absorption studies in porphycenes using picosecond and femtosecond pulses," **Optics'11-A conference on light**, May 23-25, 2011, Calicut, Kerala, India. (ORAL)
87. K.L.N. Deepak, **S. Venugopal Rao**, D. Narayana Rao, "Femtosecond Laser Direct Writing and Spectroscopic Characterization Of Microstructures, Craters, and Gratings In Bulk/Thin Films Of Polystyrene," **Optics'11-A conference on light**, May 23-25, 2011, Calicut, Kerala, India. (ORAL)
88. Syed Hamad, G. Krishna Podagatlapalli, L. Giribabu, Surya P. Tewari, **S. Venugopal Rao**, "Femtosecond and Picosecond Optical Nonlinearities of Corroles Studied using Z-Scan Technique," **Optics'11-A conference on light**, May 23-25, 2011, Calicut, Kerala, India. (ORAL)
89. K. Venkata Saravanan, K.C. James Raju, M. Ghanashyam Krishna, Surya P. Tewari, **S. Venugopal Rao**, "Optical and Nonlinear Optical Studies of Ba<sub>0.5</sub>Sr<sub>0.5</sub>TiO<sub>3</sub> Thin Films," **SPIE Optics + Optoelectronics**, Prague, Czech Republic, 18-21 April 2011. (POSTER)
90. **S. Venugopal Rao**, "Large picosecond nonlinearity in gold nanoparticles synthesized using Coriandrum Sativum extract," **SPIE Optics + Optoelectronics**, Prague, Czech Republic, 18-21 April 2011. (POSTER)
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