

Bio-Data

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Qualification: M.Sc., Ph.D (NEHU)

Designation: Assistant Professor

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Areas of research:

(i) Petroleum Fuel and supplement

Objective: Improvement of the petroleum fuel economy and emission of transport system

- Analysis of existing petroleum fuel quality
- Production and application of HHO (Brown's gas) as fuel supplement.

(ii) No. Ph.D Student: 1

Research Project Works

1. SERB(DST): Analysis of petrol quality in Aizawl and its impact on vehicular tail-pipe emission- Principal Investigator

2. DAE-BRNS: Measurements, EXFOR compilation and theoretical study of nuclear data- Co-Investigator

List of Publications in International Journals

1. Photoreduction of Fe(TPP)Cl in CH_2Cl_2 and DMSO in the presence of and in neat 1,2-dimethylimidazole without alcohol: Evidence for a photoreactive state from resonance Raman and optical absorption studies.

P.K. Shantha, **H.H. Thanga** and A.L. Verma

Journal of Raman Spectroscopy, 1998, 29, 997-1001.

2. Photoreduction of iron protoporphyrin IX chloride in non-ionic triton X-100 micelle studied by electronic absorption and resonance Raman spectroscopy.

P.K. Shantha, G.S.S. Saini, **H.H. Thanga** and A.L. Verma

Journal of Raman Spectroscopy, 2001, 32, 159-165.

3. Excitation wavelength dependence of photoreduction of cytochrome-c and its mechanism monitored by resonance Raman spectroscopy.

A.L. Verma, **H.H. Thanga**, T. Kitagawa

Asian Journal of Spectroscopy, 2001, 5, 97-111.

4. Photo-induced diacid products of octaethylporphyrins probed by resonance Raman and absorption techniques.

H.H. Thanga, A.L. Verma

New Journal of Chemistry, 2002, 26, 342-346.

5. Photoreduction of iron protoporphyrin IX chloride in ionic detergent micelles probed by resonance Raman spectroscopy.

P.K. Shantha, G.S.S. Saini, **H.H. Thanga** and A.L. Verma

Journal of Raman Spectroscopy, 2003, 34, 315-321.

6. Photooxidation of cobalt (II) meso-tetraphenylporphyrin by p-benzoquinone and its mechanism studied by resonance Raman and optical absorption spectroscopies.

H.H. Thanga, A.L. Verma.

Journal of Porphyrins and Pthalocyanines, 2003, 7, 540-547.

7. Spectroscopic studies of rhodamine 6G dispersed in polymethylcyanoacrylate.

G.S.S Saini, SarvpreetKaur, S.K. Tripathi, C.G. Mahajan, **H.H. Thanga**, A.L. Verma.

SpectrochimicaActa Part A, 2005, 61, 653-658.

8. Resonance Raman and electronic absorption study of free-base tetraphenylporphyrin diacid dispersed in polymethylcyanoacrylate

G. S. S. Saini , Amit Sharma , Sukhwinder Singh , J. M. Abbas , S. K. Tripathi , SarvpreetKaur , C. G. Mahajan , **H. H. Thanga** , A. L. Verma

Journal of Raman Spectroscopy, 2007, 38, 1802.

9. Laser induced oxidation of free base Mesoporphyrin IX dimethyl ester probed by resonance Raman Technique, **HH Thanga** and J. Lalnunthari, *Int. J. Sci. Res. & Development*, **3**, 421-422 (2015).

10. HH Thanga and J. Lalnunthari, Application of hydrogen energy a fuel supplement in internal combustion engines-A brief review. *Int. J. Sci. Res. & Development*, **3**, 70-72 (2015).

1. J. Lalnunthari, Lalrolaia and HH Thanga, Analysis of petrol quality of Aizawl for oxygenate additives by FTIR-ATR spectroscopic technique, *Sci. Vis*, **15**, 201-205 (2015).
2. J. Lalnunthari and H.H. Thanga, Detection of Methyl tert-butyl Ether (MTBE) in Gasoline Fuel using FTIR: ATR spectroscopy, *Int. Res. J. Env. Sci.*, **4**, 65-68, (2015).
3. L. R. Hlondo, B. Lalremruata, L. R. M. Punte, L. Rebecca, J. Lalnunthari, and H. H. Thanga, A revisit to self-excited push pull vacuum tube radio frequency

- oscillator for ion sources and power measurements. *Rev. Sci. Instru.* **87**, 045101 (2016).
4. L.R. Hlondo, B. Lalremruata and H.H. Thanga, Study of the Operational Characteristics of Self-excited Push-pull Vacuum Tube Oscillator for R.F. Ion Sources, *Science and Technology Journal*, **4**, 60-64 (2016).
 5. Measurement of fast neutron radiative capture cross sections for $^{70}\text{Zn}(n,\gamma)^{71}\text{Zn}(m)$ reaction using isotopically enriched ^{70}Zn isotope in the incident neutron energy range 0.3-15 Mev. Proceedings of the DAE Symp. on Nucl. Phys., **58**, 384-385 (2013). L.R. Mawia Punte, B. Lalremruata, B. Satheesh, H.H. Thanga, N. Otuka, A. Saxena, S.V. Suryanarayana, B.K. Nayak, S. Ganesan, V. Desai.
 6. Production of isomeric pairs $^{199g,m}\text{Te}$ and $^{121g,m}\text{Te}$ in proton induced nuclear reactions. *58*, 350-351 (2013). B. Satheesh, M. M. Musthafa, B. P. Singh, R. Prasad, B. Lalremruata, H. H. Thanga, L. R. Punte.
 7. Characterization of a multi-electrode common-ducted HHO dry cell, *Sci. Vis*, **15**, 54-58, 2015. J. Lalnunthari and H. H. Thanga,
 8. Laser induced oxidation of free base Mesoporphyrin IX dimethyl ester probed by resonance Raman Technique, *Int. J. Sci. Res. & Development*, **3**(9), 421-422, 2015. H. H. Thanga and J. Lalnunthari.
 9. Application of hydrogen energy as a fuel supplement in internal combustion engines-A brief review. *Int. J. Sci. Res. & Development*, **3**(10), 70-72, 2015. H. H. Thanga and J. Lalnunthari.
 10. Analysis of petrol quality of Aizawl for oxygenate additives by FTIR-ATR spectroscopic technique, *Sci. Vis*, **15**, 201-205, 2015. J. Lalnunthari, Lalrolaia and H. H. Thanga.
 11. Detection of Methyl tert-butyl Ether (MTBE) in Gasoline Fuel using FTIR: ATR spectroscopy *Int. Res. J. Env. Sci.*, **4**, 65-68, 2015. J. Lalnunthari and H. H. Thanga.
 12. A revisit to self-excited push pull vacuum tube radio frequency oscillator for ion sources and power measurements. *Rev. Sci. Instru.* **87**, 045101, 2016. L. R. Hlondo, B. Lalremruata, L. R. M. Punte, L. Rebecca, J. Lalnunthari, and H. H. Thanga.