

CURRICULAM VITAE

NAME Dr. Lalitesh Kumar Thakur

EDUCATIONAL QUALIFICATIONS

Ph.D. (Solubilization of Fatty Acids and other Food Ingredients in Micellar systems)-
Delhi University -1998

M.Phil –(Role of Interfacial Rigidity in Percolative Microemulsion systems) - Delhi
University- 1993

M.Sc (Chemistry) - Bhagalpur University

PRESENT POSITION

Specialist- June 15, 1999 till date at Institute of Pesticide Formulation Technology,
Gurgaon.

I remain engaged in development of environment & user friendly pesticide formulations, their quality parameters and improvement of existing pesticide formulations such as Concentrated Emulsion, Microemulsion, Cream, Gel & tablet of synthetic and botanical pesticides, their quality parameters & residue analysis.

Scale- Level 12

RESEARCH EXPERIENCE: 20 years

PROFESIONAL EXPERIENCES

- I. **CSIR** Research Associate in Department of Chemistry, University of Delhi from 01, April 1998 to June 14, 1999. The project was on “Formulation of Neem Oil Microemulsion”.
- II. **Senior Research Fellow** at Ganesh Scientific Research Foundation, Delhi from 05 January 1996 to 31 March 1998.
- III. **Guest Faculty** in Delhi Institute of Technology, Delhi from August 22, 1995 to November 17, 1995.

TRAINING

1. Course on “Lab Quality Management system and internal audit as per ISO 17025” at Indian Institute of Quality Management, Jaipur during September 16-19, 2008.
2. Course on “Analysis of Chemicals Related to the Chemical Weapon Convention in the Framework of OPCW Proficiency Testing” at VERIFIN, the University of Helsinki, Finland from 6-24 September, 2010.
3. Training on “Patent Filing Processing and Drafting” at Rajiv Gandhi National Institute of Intellectual Property Management, Nagpur during September 21-23, 2015.
4. 12th OECD Training Course for GLP Inspectors at Hyderabad during October 12-15, 2015.
5. 4th training course for GLP inspectors at Delhi during December 19-23, 2016.

6. Sensitization workshop on GLP during May 17&18, 2018 at National Productivity Council (NPC), Institutional Area, Lodi Colony, New Delhi.
7. Training Course on GLP for Archivists of GLP Test Facilities during June 21&22, 2018 at National Productivity Council, 5-6, Lodhi Colony, New Delhi.

OTHER ENGAGEMENTS:

- I. Working as **Quality Manager** since January 31, 2011 for NABL activities. Prior to that I was working as Internal Auditor.
- II. Worked as In-charge of Analytical Division since June 2010 to December 2017.
- III. Working as **Principal Investigator** for following projects
 - a. Monitoring of Pesticide Residue at National Level (MPR):
The project is sponsored by Ministry of Agriculture, Govt. of India. In this project every month samples of fruits, vegetable, cereals, milk & water are collected from different districts of Haryana. Samples are processed & analysed by sophisticated instruments like GC, GC-MS. Analysis report is sent to project network co-ordinator every month. The project is continuing in IPFT since 2006.
 - b. Extraction of Bioactive Compounds & Development of Pesticide Formulations from Aromatic Plants Available in North Eastern Region, their Quality Parameters & Employment Generation “ in collaboration with Manipur Central University, Imphal sponsored by Department of Biotechnology, Delhi.
 - c. Monitoring of Pesticide Residue in Farm Produce in different Parts of Rajasthan sponsored by Govt. of Rajasthan

Projects Completed successfully as PI

- A. Studies on pesticide formulations from Basil & Turmeric oil for household and agriculture purposes sponsored by Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India.
- B. Development of Mosquito Repellent formulations sponsored by DRDE, Gwalior.
- C. Development of Plant Extract formulations & their Bio-efficacy Studies” sponsored by Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India

PUBLICATIONS

A. Research Papers

1. **L. K. Thakur**, Tapas Kr. De and Amarnath Maitra, Role of Interfacial Rigidity on Electrical Conductivity and Electrolyte Exchange in the Infinite Droplet Clusters of Oil Continuous Microemulsion Systems, *J.Surf. Sci. Technol.* Vol. **13 (1)**, 35-43, 1997.
2. P.Kaushik, **L. K. Thakur** and P.K. Patanjali ,Micellar Solubilization of Oleic Acid and its Enrichment in Fatty Acid Mixture Using Micellar Media *J. Surf. Sci. Technol.* **18 (3-4)**, 153, 2002.
3. Rajiv Kr. **L. K. Thakur**, and P.K. Patanjali, Solubilization of Some water insoluble Food Flavors in Single and Mixed Micellar solutions , *J. Surf. Sci. Technol.* **18 (3-4)**, 163, 2002.
4. Sandeep Kr. Dixit, Punita Kumari, Shivam Dixit, Rajmani Prajapati, S.K. Raza & **L.K. Thakur**, *Euphorbia Tirucalli* Traditional use: An overview, *J. Applicable Chemistry* **3 (1)**, 228-236, 2014.
5. Rajmani Prajapati, Sunita Roy, Sudeep Mishra, S.K. Raza And **L.K. Thakur**, Formulation Development, Standardization And Antimicrobial Activity Of *Ageratum Conyzoides* Extracts And Their Formulation, *International Journal of Pharmacy & Pharmaceutical Sciences*, **6 (2)**, 369-374, 2014.
6. **L.K. Thakur**, Sunita Roy, Rajmani Prajapati, Mukesh Kr. Singh, S.K. Raza, B D Mangave, Alka Singh & Sanjay Jha, Development and Evaluation of Environment & User friendly Turmeric Oil Emulsifiable Concentrate (EC) Formulations for postharvest quality and life in rose cv. Poison, *International Journal Of Recent Scientific Research*, **5(1)**, 178-185, 2014.
7. S. Mishra' B. Dwivedi, A. Singh, R.Rani' R.Parjapati & **L.K. Thakur** Development of TLC autographically guided GC-MS profile of major phytochemical constituents for comparative assessment in different extracts of *Ageratum conyzoides*, , *International Journal of Pharmacy & Pharmaceutical Sciences*, **6(2)**, 559-561, 2014.
8. **L.K. Thakur**, Sunita Roy, Rajmani Prajapati, Mukesh Kr. Singh, S.K. Raza, Development & Evaluation of Basil Oil Emulsifiable Concentrates, *African Journal of Scientific Research*, **3(1)**, 6-9, 2014.
9. B. Dwivedi, A. Singh, S. Mishra, R.Singh' P. Pant, **L.K. Thakur** & M.M. Padhi, Evaluation of Phytochemical Constituents by Gas Chromatography-Mass

Spectroscopy & HPTLC of *Calotropis Procera* World Journal of Pharmaceutical Research, **3(7)**, 708-715, 2014.

10. **L.K. Thakur**, Mukesh Kr. Singh, Kuldeep Ravivanshi, Savita Yadav & S.K. Raza, Solubilization of Eugenol & Methyl Eugenol in Single & Mixed Micellar Solutions and their Evaluation Journal of Multidisciplinary Scientific Research (**4**), 4-8, 2014.
11. Sandeep Kr. Dixit, Punita Kumari, Rajmani Prajapati, S.K. Raza & **L.K. Thakur**, Characterization and Evaluation of Antibacterial, Antifungal Activity of Environment Friendly Capparis Decedua Microemulsion, International Journal of Pharmacy & Pharmaceutical Sciences, **7(1)**, 255-257, 2014.
12. Akriti Agarwal, Rajmani Prajapati, Ompal Singh, S.K. Raza & **L.K. Thakur** Pesticide Residue in Water- A Challenging Task in India, Environmental Monitoring and Assessment, 187:54, 2015.
13. Shivam Dixit, Sandeep Kr. Dixit, Rajmani Prajapati, S.K. Raza & **L.K. Thakur**, Development and Physicochemical Studies of Melia Azederach EC & ME Formulations, International Journal of Institutional Pharmacy & Life Sciences, **5(1)**, 59-64, 2015.
14. Sudeep Mishra, Mahesh K. Saini, Samsul Alam*, **L. K. Thakur** and Syed K. Raza, Determination of 25 Pesticides By GC-ECD And MSD With Measurement of Uncertainty In Tomato Using Modified QuEChERS Technique, Journal of Applicable Chemistry **4 (1)**: 221-231, 2015.
15. S. Mishra, M.K.Saini, S. Alam, **L.K. Thakur** and S.K. Raza, Method Validation and Uncertainty measurement for Determination of 25 Pesticides by GC-ECD and MSD in Banana using modified QuEChERS Technique, International Research Journal of Environmental Sciences, **4(3)**, 21-27, 2015.
16. Sudeep Mishra, M.K. Saini, M.K. Singh, S Alam, **L.K. Thakur**, S.K. Raza & S. Mukherjee, Method Development And Validation For Identification of 2-Phenyl Phenol in Siapton 10 L By Gas Chromatography Mass Spectrometry, , World Journal of Pharmacy & Pharmaceutical Sciences, **04 (12)**,783-792, 2015.
17. Punita Kumari, Sandeep Kumar Dixit, Shivam Dixit, Rajmani Prajapati, S.K. Raza & **L.K. Thakur**, Green Synthesis of Silver Nano Particles By Using *Capparis Decidua* Extract And Its Antibacterial Studies, , African Journal of Science and Research, (**4**)**6**, 13-15, 2015.
18. Mahesh Kr. Saini, Sudeep Mishra, Samsul Alam, **L. K. Thakur**, Ompal Singh, Syed K. Raza, Method Development and Validation of Multiclass Pesticide Residues and

- Metabolites in Wheat by GC-ECD and GC-MS, Asian Journal Research Chem. **9(1)**, 2016.
19. Sudeep Mishra , V. D. Deotale , M. A. Pande , M. K. Saini, M. K. Singh, , S. Alam, B. S. Sehrawat, **L. K. Thakur**, and S. K. Raza GC -Ms Analysis Of Multiclass Pesticide Residues Found In Farmland Water Of Haryana Districts, World Journal of Pharmaceutical Research **05 (8)**, 744-752, 2016.
 20. Akriti Agarwal, Rajmani Prajapati, S.K. Raza & **L.K. Thakur** GC-MS Analysis and Antibacterial Activity of Aerial Parts of of *Quisqualis Indica* Plant Extracts., Indian Journal of Pharmaceutical Education & Research, **51(2)**, 329-336, 2017.
 21. Neelam Richhariya, Sudeep Mishra, **L. K. Thakur**, Extraction and Analysis of Pesticide Residues from liquid milk – A review, International Journal of Pharmacy & Life Sciences, **8(1)**, 5426-5432, 2017.
 22. Prajapati Raj Mani, Singh Upma, Agarwal Akriti & **Thakur L. K.**, Water based microemulsion from Jatropha (*Jatropha curcas*) seed oil and its in –vitro antifungal activity against soil borne plant pathogenic fungi, , Research Journal of Chemistry & Environment, **21(4)**, 50-57, 2017.
 23. Mishra, Neelam Richhariya, Samsul Alam, **L.K. Thakur** & Phool Kumar Patanjali, Development Of Method and Validation for determination of Pesticide Residues In Chilli By GC -ECD (Electron Capture Detector) And GC- MS (Mass Spectrometer), Sudeep World Journal of Pharmaceutical Research **6(4)**, 1174-1185, 2017.
 24. Neelam Richhariya, Sudeep Mishra, Samsul Alam, **L. K. Thakur** & P. K.. Patanjali, In house laboratory method validation and uncertainty determination of Organophosphorous pesticides in spinach by Gas Chromatography using, Flame Photometric (FPD) and Mass (MS) detectors, International Journal of Pharmacy & Life Sciences **8(2)**, 5464-5472, 2017.
 25. S. Mishra, V. D. Deotale, M.A. Pande, M.K. Singh, S. Alam, B.S. Shehrawat, **L. K. Thakur** & S.K. Raza, Monitoring of multiclass Pesticide Residue in farmland soil from different districts of Haryana, , Agriculture Research Journal, **54(1)**, 47-52, 2017.
 26. Neelam Richhariya, Sudeep Mishra, **L. K. Thakur** & Rachna Rani, Extraction and Analysis of Pesticide Residues from liquid milk – a review, International Journal of Pharmacy & Life Sciences **8(1)**, 2017, 5426-5432.
 27. Rajmani Prajapati, **L.K. Thakur** & Upma Singh, Formulation and Bio-efficacy of Emulsifiable Concentrates of *Pongamia pinnata* and *Jatropha curcas* Seed Oils

Against Plant Pathogens, International Journal of ChemTech Research-accepted 2017.

28. Rajmani Prajapati, **L.K. Thakur** & Upma Singh, Melia azedarach Seed oil EC formulation and evaluation of its antifungal activity against *Rhizoctonia solani* and *Sclerotium rolfsii* pathogens, Advances in Bioresearch, **8(5)**, 141-147, 2017.
29. Rajmani Prajapati, Akriti Agawal, **L.K. Thakur** & Upma Singh Seed Oils are natural source of Bio-Pesticides, World Journal of Pharmaceutical and Life Sciences, **3(8)**, 157-165, 2017.
30. Sudeep Mishra, Neelam Richhariya' **L. K. Thakur**, Gas Chromatographic Determination of 23 Organophosphorus Pesticides Residue In Bottle Guard Matrix, International Journal of Pharmacy and Pharmaceutical Sciences, **10(1)**, 2018.
31. Sudeep Mishra, Samsul Alam, **L. K. Thakur** Uncertainty Determination of 23 Organophosphorus Pesticide Residues in Chilli fruit by Gas Chromatography, Flame Photometric Detector (FPD), International Journal of Advance Research in Science & Engineering **6(11)**, 2017.
32. Neelam Richhariya, Sudeep Mishra, **L. K. Thakur**, Rachna Rani, Pesticide Residue Contamination of Liquid Milk in India, a review International Journal of Pharm. Life Sciences, **8(2)**, 549-562, 2017.
33. Pesticide Residue Analysis in Seasonal Fruits from Charkhi- Dadri, Jhajjar and Gurgaon Districts of Haryana, India
Savita Sharma, Akriti Agarwal & L.K. Thakur, International Journal of Institutional Pharmacy & Life Sciences, 7(6), 2017

B. Patent

1. Water based Antimicrobial & Insect Repellant cleaning Formulation

L.K. Thakur, Paras Jain & S.K.Raza

(Patent application no. **1966/DEL/2012**)

2. A mosquito Repellent Cream Formulation

L. K. Thakur, Paras Jain & S.K.Raza

(Patent application no. **2957/DEL/2012**)

C. Book/Chapter

- i.** Chapter on “Pesticide Microemulsions and Biopesticide Formulations”

L. K. Thakur

Published in the book titled “Biocontrol: Management, Process and Challenges” by Nova Publishers, USA, 107-132, 2012

- ii.** In house Laboratory Method Validation and Uncertainty Determination of Pesticides in Spinach by GC-ECD and GC-MS

Sudeep Mishra, NeelamRichhariya, SamsulAlam , **L. K. Thakur** and P.K. Patanjali

Accepted -Green Chemistry in Environmental Sustainability and Chemical Education (Springer)-2018

CONFERENCE/SYMPOSIA ATTENDED:

1. Presented paper on Solubilization of Oleic Acid and its Recovery from the Mixture of Fatty Acids using SDS Micelles at 72nd Colloid and Surface Science Symposium, the Pennsylvania State University, **USA** during June 21-24, 1998.

L.K. Thakur & Amarnath Maitra

2. Presented paper on Solubilization of some Water insoluble Food Flavors in Single and Mixed Micellar Solution at AOCS-OTAI International Conference and Exhibition on Oil Seeds & Vegetable Oil Processing, Delhi during February 19-21, 1999.

L.K. Thakur & Amarnath Maitra

3. Development of Environment friendly Emulsifiable Concentrate from Turmeric oil and study of their physio-chemical properties

L.K.Thakur, Sunita Roy & Mukesh K.Singh

Presented at 3rd international conference at **Bangkok**, Thailand during June 12-14, 2011.

4. Development of environmental friendly emulsifiable concentrate from Basil Oil and its physio chemical studies

L.K.Thakur, Sunita Roy & Mukesh K.Singh

Presented at 15th ISCB international conference at Rajkot, Gujrat during February 4-7, 2011

5. Solubilization of some insect attractant in single and mixed micellar solution and their physico chemical studies

L.K.Thakur, Mukesh K. Singh, Kuldeep K. Ravivanshi & Savita Yadav

Presented at 15th ISCB international conference at Rajkot, Gujarat during February 4-7, 2011

6. Development of Environment and User Friendly Basil oil Microemulsion and their Physico-chemical Studies.

L.K. Thakur & Sunita Roy

Presented at International Symposium NPMP, TERI, IHC, Delhi, during 14th – 15th, February, 2012

7. Solubilization of Clove oil (Natural Insecticide) in single & Mixed Micellar Solution and Their Physico-Chemical studies

L.K. Thakur & Rajmani Prajapati

Presented at International IUPAC International Conference at IARI, Delhi, during 15th – 18th, February, 2012

8. Antifungal Evaluation of Water Based Microemulsion of Eugenol & Methyl Eugenol against *Rhizoctonia Solani* & *Sclerotium Rolfsii*

L.K. Thakur, Mukesh Kr. Singh & N.A. Shakil

Presented at International IUPAC International Conference at IARI, Delhi, during 15th – 18th, February, 2012

9. Development of Environment and user friendly Basil Oil Formulation and their Physico-Chemical Studies

L.K. Thakur & Sunita Roy

Presented at International Conference on Global Trends in Pure & Applied Chemical Sciences at Udaipur during March 03-04, 2012

10. Use of Plant Extract Formulation as Green Pesticide

R. Prajapati, S.K. Raza & **L.K. Thakur**

Presented (Invited Lecture) at Chemical Constellation Cheminar organized by DR. Ambedkar Institute of Technology (NIT), Jalandhar during September 10-12, 2012.

11. Field Evaluation of Basil Oil Formulations against Sucking Pests of Cotton

R.G. Samota, H.S. Baheti, **L.K. Thakur**, D.R. Bajya & S.K. Raza

Presented at International Conference at Hyderabad – 2012.

12. Development of Botanical Pesticide Microemulsion and their Thermodynamic Stability

L.K. Thakur, R. Prajapati, Sunita Roy & S.K. Raza

Presented at 7th National Conference on Thermodynamics of Chemical, Biological and Environmental Processes, TCBEP-2012 at S.V. University, Tirupati during December 10-12, 2012.

13. “Analysis of Pesticide Residue in Water from different sources in Delhi & NCR Region”

Mukesh Kr. Singh, Sudeep Mishra, Ompal Singh, **L.K. Thakur** & S.K. Raza

at Food Security Dilemma: Plant Health & Climate Change Issues, AAPP, organized by BCKV, Kalyani during December 7-9, 2012.

14. Method Development and Validation for multiclass Pesticide Residue in Cereals using Gas Chromatograph Electron Capture Detection (GC-ECD) and Mass Spectrometry (GC-MS)

Sudeep Mishra, Mahesh Kr. Saini, Samsul Alam, **L.K. Thakur** & S.K. Raza

Presented at International Conference on Chemistry: Frontiers & Challenges during March 2-3, 2013 at AMU, Aligarh

15. Environment & user friendly Water based Pesticide Formulations”

L.K. Thakur, Rajmani Prajapati, S.K. Raza

Presented at XII International Conference on Vector & Vector Borne Diseases

M.L.S.U, Udaipur during September 16-18, 2013.

16. Determination of 25 pesticides by GC-ECD & MSD with measurement of uncertainty in tomato & banana using modified QuEChERS technique

S.Alam, Mahesh Kr. Saini, **L.K. Thakur** & S.K. Raza

Presented at International conference on frontiers of mass spectrometry at Mahatma Gandhi University, Kottayam during September 6-9, 2013.

17. Multi-residue analysis, method development and validation of Organo phosphorous pesticides in water by GC-FPD

Ompal Singh, Akriti Aggarwal, Sudeep Mishra, Rajmani Prajapati, **L.K. Thakur**, S.K. Raza & Anuradha Mishra

Presented at International Workshop on Green Initiatives in Energy, Environment & Health at Delhi during December 2-3, 2013.

18. Synthesis of Silver nano particles by using *Capparis Decidua* Extract

Sandeep Kr. Dixit, Kamal Kishor, S.K. Raza & **L.K. Thakur**

National Conference on Nanotechnology and Renewable Energy (NCNRE) organized by Department of Applied Science and Humanities Faculty of Engineering and Technologies Jamia Millia Islamia, New Delhi, India from April 28th to April 29, 2014

19. Evaluation of Silver nano particles using *Capparis Decidua* Extract

Sandeep Kr. Dixit, Kamal Kishor, S.K. Raza & **L.K. Thakur**

2nd Annual Conference on Science Emerging Scenario & Future Challenges organized by Himalayan forest Research Institute, Shimla, India from May 17-18, 2014.

20. Monitoring of Multiclass Pesticide Residues in farmland soil from different districts of Haryana by Gas Chromatography Mass Spectrometry”

Sudeep Mishra, M.K. Saini, V.Deotale, M.K. Singh, M.Pande, S. Alam, **L.K. Thakur**, S.K. Raza & B.S. Sehrawat

Presented at National Conference on Green Techniques at Mewar University, Chittorgarh during July 11-12, 2014.

21. Analysis of Multiclass Pesticide Residues in farmland water samples from Haryana districts by Gas Chromatography Mass Spectrometry”

Sudeep Mishra, M.K. Saini, V. Deotale, M.K. Singh, M. Pande, S. Alam, **L.K. Thakur**, S.K. Raza & B.S. Sehrawat

Presented at National Conference on Interdisciplinary Approaches in Chemical Sciences at Jamia Millia Islamia, Delhi on December 16, 2015.

22. In house Method Validation and Uncertainty determination of 28 pesticides in Spinach by GC ECD & MS

Sudeep Mishra, S. Alam, **L.K. Thakur**, Neelam Richhariya & S.K. Raza

International Conference on Green Chemistry in Environment Sustainability and Chemical Education at Daulat Ram College, Delhi University during November 17-18, 2016

23. Pesticide Residue in Water- a great concern in India (Invited talk)

L.K. Thakur, R. Prajapati & Akriti Agarwal

Workshop on Recent Advances in Chemical Sciences held at P.G. Department of Chemistry, Govt. Dungar College, Bikaner during January 23-25, 2017.

Reviewer of Journal

1. I am one of the reviewers of Journal of Environmental Science and Health, Part B (Pesticides, Food contaminants and Agriculture waste)
2. South Pacific Journal of Natural and Applied Sciences (SPJNAS).
3. International Journal Of Recent Scientific Research (IJRSR)

Dissertations supervised/co-supervised

Ph.D. – Two

PERSONAL DETAILS

NAME : Dr. Lalitesh Kumar Thakur

DATE OF BIRTH December 20, 1964

NATIONALITY : Indian

MEDIUM OF EDUCATION : English

MARITAL STATUS : Married

ADDRESS FOR COMMUNICATION : Institute of Pesticide Formulation Technology

Sector-20, Udyog Vihar

Opposite Ambience Mall

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(L.K. Thakur)