

Prof. Richa Kothari, M. Phil. (Energy & Environment),
<https://scholar.google.co.in/citations?user=tBD5uxIAAAAJ&hl=en>

Citations:6305, h-index:37; i10-index: 74 (Google Scholar)

Name: Dr. Richa Kothari
Designation: Professor
Department: Environmental Sciences, Central University of Jammu, Jammu, J&K
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Worked as: WARI Fellow, Robert B. Daugherty Water for Food Institute, University of Nebraska-Lincoln, Lincoln, NE, USA-68588

Academic Profile

- M. Phil and Ph.D. in Energy & Environment.
- More than 17 years of teaching and research experience.
- Ph.D./M. Phil/M.Sc. guidance:

Ph.D. guided: 08; Ph.D. Ongoing: 06

M.S. (Environmental Sciences) thesis dissertation: 57; and M. Tech (Energy & Environment: 20).

List of Ph.D. completed and ongoing-

S. No.	Name of Student	Title of Thesis	Supervisor
1.	Virendar Kumar	Process Assessment of Bio-Energy Options (Hydrogen and Methane) Using Microbes with Industrial Waste Water. (Awarded)	Supervisor
2.	Vinayak Vandan Pathak	An approach of Phycoremediation and Biodiesel production using microalgae <i>Chlorella pyrenoidosa</i> from Industrial wastewater (Awarded)	Co- Supervisor
3.	Shamshad Ahmad	Spectral conversion of light with different induced stress condition to	Supervisor

		improve algal growth using wastewater for bioenergy application. (Awarded)	
4.	Arya Pandey	Studies on Thermal Energy Storage based bioreactors for algal biomass and its different use for biofuel production (Awarded)	Supervisor
5.	Mohd. Baqir	Carbon sequestration and fuel wood assessment of Kahinure plantation forest in rural area of district Mau, Uttar Pradesh, India (Awarded)	Co-Supervisor
6.	Rifat Azam	Assessment for production of algal biochemical compounds using wastewater and its applications for value-added products (Awarded)	Co-Supervisor
7.	Pradeep kumarManjhi	Solar energy based hybrid system for the treatment of dye industry wastewater (Awarded)	Co-Supervisor
8.	Gagandeep Kour	Hydro-geochemical evaluation and Watershed studies of Tawi river basin, Outer Himalayas, Jammu and Kashmir, India (Ongoing)	Co-Supervisor
9.	Sonika Kumari	Sequential Industrial Wastewater Treatment along with Bio-oil and biochar production using <i>Chlorella sp.</i> Isolated from Ganga river (Awarded)	Co-Supervisor
10.	Kajol Gorla	Agro-industrial wastes as bioflocculants to treat wastewater with Chlorella sp. And its harvesting for bioenergy and carotinoids productions: An integration approach (Ongoing)	Supervisor
11.	Anu Bharti	Enhancement of Mixotrophic Algal Biofilm Growth in Wastewater based Cultivation for Extracellular Polymeric Substances (EPS) for their Applications (Ongoing)	Supervisor
12.	Shubham Raina	Synthesis, Characterization and Performance Evaluation of Bio-Waste derived Catalysts for Green Hydrogen Production and Wastewater Treatment (Ongoing)	Supervisor
13.	Rubia Kauser	Utilisation of Urban and Agro-residual Biomass Densification for Fuel Pellets (Ongoing)	Supervisor
14.	Krishma Kumari	Performance Assessment of Designed Lab-Scale Vertical Flow Constructed	Co-Supervisor

		Wetland for Domestic Wastewater Treatment (Ongoing)	
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Administrative Duties

- **Nodal Officer for Waste Management Cell**, Central University of Jammu, Jammu (8th Feb. 2023 onwards)
- Nodal Officer for UGC Scholarship Cell, Central University of Jammu, Jammu (**June 2019 -June 2023**)
- DIRECTOR (I/C) of Centre for Comparative Religion and Civilization (**11th March 2019 to March 2022**) at Central University of Jammu, Jammu, J&K
- DIRECTOR (I/C) of Centre for Molecular Biology(**04 June 2019-10 December 2019**) at Central University of Jammu, Jammu, J&K
- Deputy Coordinator for M. Tech/M.Sc. Energy & Environment (2013 to 2017) at BabasahebBhimraoAmbedkar University, Lucknow (U.P.), India
- Warden girls Hostel at Babasaheb Bhimrao Ambedkar University, Lucknow (U.P.), India(May 2015 to May 2017)

RESEARCH INTERESTS

Bio-energy production approaches (Biofuel & Biohydrogen), Solar Energy based waste water treatment technologies, Low-cost wastewater treatment technologies.

RESEARCH/ACADEMIC EXPERIENCE

28th November 2020 to till date	Professor , Department of Environmental Sciences, Central University of Jammu, Jammu (J&K), India.
28th Nov. 2017 to 27th November 2020	Associate Professor , Department of Environmental Sciences, Central University of Jammu, Jammu (J&K), India.
9th April 2008 to 27th Nov. 2017	Assistant Professor , School of Environmental Sciences, Babasaheb Bhimrao Ambedkar University, (Central University), Lucknow (U.P.), India
Aug. 2006 to 8th April 2008	Assistant Professor , Amity Institute of Biotechnology, Amity University of Uttar Pradesh, Noida (U.P.), India

Research Project:

National Development Foundation: NDF/NWCC/K H AN P -01 12021 I 467, “Preparation of PRI based geo-referenced Biodiversity assessment, documentation and conservation plan of wild flora and fauna of Kishtwar High Altitude National Park (KHANP)”, Central University of Jammu.

Co-PI: Dr. Richa Kothari.

(ONGOING)

DST, Govt. of India Project- “Thermal Energy Storage for Food/Grain Drying with CST/RE to Lower Pollution” (DST/INT/AUS/P-76/2020), Central University of Jammu.

Co-PI: Dr. Richa Kothari. (COMPLETED)

DST, Govt. of India Project -Study of policies and mechanism that could facilitate delivery of STI output for social inclusion in Energy sector, (Total duration –05 years) (Sanctioned amount Rs.64,32,000 /- (every year) Sanctioned year for 2014-2019), BabasahebBhimraoAmbedkar University.

Co-PI: Dr. Richa Kothari. (Energy Section) (COMPLETED)

TEACHING SKILLS

Theoretical grounds/Electives

Energy resources, Environmental pollution, EnvironmentalTechnology, Waste to energy generation, Natural resources and their Management, Environmental concerns & strategies, Biodiversity and its conservation, Current Environmental Issues and Challenges, Research Ethics.

Languages

English (writing &Speaking); Hindi (Mother Tongue)

Edited Books:07; Book Chapter: 37; Patent Granted: 01

Guest Editor in Issues Special: 04

Publications (National and International) in Journals: 97

Year 2023

1. Sharma, M., Tyagi, V. V., Chopra, K., **Richa Kothari**, Singh, H. M., & Pandey, A. K. (2023). Advancement in solar energy-based technologies for sustainable treatment of textile wastewater: Reuse, recovery and current perspectives. *Journal of Water Process Engineering*, 56, 104241. (**Impact factor: 7.34**)
2. Kalidasan, B., Pandey, A. K., Saidur, R., **Richa Kothari**, Sharma, K., & Tyagi, V. V. (2023). Eco-friendly coconut shell biochar based nano-inclusion for sustainable energy storage of binary eutectic salt hydrate phase change materials. *Solar Energy Materials and Solar Cells*, 262, 112534. (**Impact Factor- 7.305**)
3. Singh, K., Meena, R. S., Kumar, S., Dhyani, S., Sheoran, S., Singh, H. M., & Byun, C. (2023). India's renewable energy research and policies to phase down coal: Success after Paris agreement and possibilities post-Glasgow Climate Pact. *Biomass and Bioenergy*, 177, 106944. (**Impact Factor- 5.774**)
4. Sheikh, Z. U. D., Bajar, S., Devi, A., Rose, P. K., Suhag, M., Yadav, A., ... & Singh, A. (2023). Nanotechnology based technological development in biofuel production: current

- status and future prospects. *Enzyme and Microbial Technology*, 110304. (**Impact Factor-3.705**)
5. Kothari, R., Azam, R., Singh, H. M., Kumar, P., Kumar, V., Singh, R. P., & Tyagi, V. V. (2023). Nutrients Sequestration from Slaughterhouse Wastewater with Kinetic Model Studies Using *C. vulgaris* for Lipid Production and Reduction in Freshwater Footprint: A Synergistic Approach. *Waste and Biomass Valorization*, 1-12. . (**Impact Factor- 3.449**)
 6. Pathak, A. K., Chopra, K., Tyagi, V. V., Anand, S., **Richa Kothari.**, Sari, A., & Pandey, A. K. (2023). Solar heat pipe ETC integrated with solar still system for water treatment and hot water production: novel hybrid experimental approach. *Journal of Thermal Analysis and Calorimetry*, 1-21. (**Impact Factor- 4.755 &Q1**)
 7. Gorla, K., Singh, H. M., Singh, A., **Richa Kothari** & Tyagi, V. V. (2023). Insights into biohydrogen production from algal biomass: Challenges, recent advancements and future directions. *International Journal of Hydrogen Energy*. **Impact Factor- 7.139 &Q1**)
 8. Mahajan, M., Singh, A., Singh, R. P., Gupta, P. K., **Richa Kothari** Kothari, R., & Srivastava, V. (2023). Understanding the benefits and implications of irrigation water and fertilizer use on plant health. *Environment, Development and Sustainability*, 1-22. **Impact Factor- 4.08 &Q1**
 9. Singh H. M., Sharma M., Tyagi V. V., Gorla K., Buddhi D., Sharma A., Bruno F., Sheoran S. & **Richa Kothari** (2023). Potential of Biogenic and Non-Biogenic Waste Materials as Flocculant for Algal Biomass Harvesting: Mechanism, Parameters, Challenges and Future Prospects. *Journal of Environmental Management*. Ref. No.: JEMA-D-22-11005R1. [**Impact Factor-8.91 &Q1**]
 10. **Richa Kothari**, Rajeev Pratap Singh et al., Pesticides on pests and their consequent effect on Fishes and Human Health: Potential Risk and Remediation techniques. *AQUA-Water Infrastructure, Ecosystems and Society*. [**Impact Factor-3.00**]
 11. Malla, M. A., Dubey, A., Kumar, A., Patil, A., Ahmad, S., **Richa Kothari**, & Yadav, S. (2023). Optimization and elucidation of organophosphorus and pyrethroid degradation pathways by a novel bacterial consortium C3 using RSM and GC-MS-based metabolomics. *Journal of the Taiwan Institute of Chemical Engineers*, 144, 104744. [**Impact Factor-5.47 &Q1**]
 12. Singh H. M., Tyagi V. V., **Richa Kothari** & Sari A. (2023). *Fermentation*. Manuscript ID: fermentation-2169190. [**Impact Factor-5.12 &Q1**]
 13. **Richa Kothari**, Singh H. M., Azam R., Gorla K., Bharti A., Singh A., Bajar S., Pathak A., Pandey A.K. & Tyagi V. V. (2023). Potential Avenue of Genetic Engineered Algal derived Bioactive Compounds: Influencing Parameters, Challenges and Future Prospects. *Phytochemistry Reviews*. Manuscript no: PHYT-D-22-00014R1 [**Impact Factor-7.74 &Q1**]

Year 2022

14. Pathak, A., Al-Sheeha, H., Navvamani, R., **Richa Kothari**, Marafi, M. and Rana, M.S., 2022. Recycling of platinum group metals from exhausted petroleum and automobile catalysts using bioleaching approach: a critical review on potential, challenges, and outlook. *Reviews in Environmental Science and Bio/Technology*, pp.1-25.[**Impact Factor-14.28 &Q1**]
15. Kumari, S., Kumar, V., **Richa Kothari** and Kumar, P., 2022. Effect of supplementing biochar obtained from different wastes on biochemical and yield response of French bean (*Phaseolus vulgaris* L.): An experimental study. *Biocatalysis and Agricultural Biotechnology*, 43, p.102432.[**Scopus**]
16. Kumar, R., Pandey, A.K., Samykano, M., Aljafari, B., Ma, Z., Bhattacharyya, S., Goel, V., Ali, I., **Richa Kothari** and Tyagi, V.V., 2022. Phase change materials integrated solar desalination system: An innovative approach for sustainable and clean water production and storage. *Renewable and Sustainable Energy Reviews*, 165, p.112611.[**Impact Factor-16.79&Q1**]
17. Vaish, B., Srivastava, V., Singh, U.K., Gupta, S.K., Chauhan, P.S., **Richa Kothari**, and Singh, R.P., 2022. Explicating the fertilizer potential of anaerobic digestate: Effect on soil nutrient profile and growth of *Solanum melongena* L. *Environmental Technology & Innovation*, p.102471. [**Impact Factor-7.75&Q1**]
18. Pathak, A.K., Tyagi, V.V., Anand, S., Pandey, A.K. and **Richa Kothari**, 2022. Advancement in solar still integration with phase change materials-based TES systems and nanofluid for water and wastewater treatment applications. *Journal of Thermal Analysis and Calorimetry*, pp.1-47. [**Impact Factor-4.75&Q2**]
19. Devi, A., Bajar, S., Kour, H., **Richa Kothari**, Pant, D. and Singh, A., 2022. Lignocellulosic Biomass Valorization for Bioethanol Production: a Circular Bioeconomy Approach. *Bioenergy Research*, pp.1-22. [**Impact Factor-3.85 & Q2**]
20. Azam, R., **Richa Kothari**, Singh, H.M., Ahmad, S., Sari, A. and Tyagi, V.V., 2022. Cultivation of two *Chlorella* species in Open sewage contaminated channel wastewater for biomass and biochemical profiles: Comparative lab-scale approach. *Journal of Biotechnology*, 344, pp.24-31. [**Impact Factor-3.59& Q2**]
21. Tyagi, V.V., Chopra, K., Sharma, R.K., Pandey, A.K., Tyagi, S.K., Ahmad, M.S., Sari, A. and **Richa Kothari**, 2022. A comprehensive review on phase change materials for heat storage applications: Development, characterization, thermal and chemical stability. *Solar Energy Materials and Solar Cells*, 234, p.111392. [**Impact Factor-7.30&Q1**]

Year 2021

22. Singh, H.M., Tyagi, V.V., **Richa Kothari**, Azam, R., Khare, P. and Sari, A., 2021. Novel approach for harvesting of microalgal biomass using electric geyser waste material deposit as flocculant in coupling with poultry excreta leachate. *Bioresource Technology*, 341, p.125646. [**Impact Factor-11.88&Q1**]

23. Deepika, K., Shankar, R., Pandey, A.K., Shahabuddin, S., **Richa Kothari** and Agarwal, P., 2021. Reduction of Emission Gas Concentration from Coal Based Thermal Power Plant using Full Combustion and Partial Oxidation System. *Journal of Engineering Research*. **[Impact Factor-1.49&Q3]**
24. Pandey, A.K., Kumar, R.R., Kalidasan, B., Laghari, I.A., Samykano, M., **Richa Kothari**, Abusorrah, A.M., Sharma, K. and Tyagi, V.V., 2021. Utilization of solar energy for wastewater treatment: Challenges and progressive research trends. *Journal of Environmental Management*, 297, p.113300. **[Impact Factor-8.91&Q1]**
25. **Richa Kothari**, Singh, B., Guldhe, A., Tyagi, V.V. and Singh, A., 2021. Thematic issue “Bio-based materials for biorefineries: innovative processes and concepts”. *Biomass Conversion and Biorefinery*, pp.1-3. **[Impact Factor-4.05&Q2]**
26. Tyagi, V.V., Chopra, K., Kalidasan, B., Chauhan, A., Stritih, U., Anand, S., Pandey, A.K., Sari, A. and **Richa Kothari**, 2021. Phase change material based advance solar thermal energy storage systems for building heating and cooling applications: A prospective research approach. *Sustainable Energy Technologies and Assessments*, 47, p.101318. **[Impact Factor-7.63&Q1]**
27. Pathak, A.K., Tyagi, V.V., Anand, S. and **Richa Kothari**, 2021. Experimental investigation of designed solar parabolic concentrator based desalination system for textile industry wastewater treatment. *Energy & Environment*, p.0958305X211027335. **[Impact Factor-3.15&Q2]**
28. **Richa Kothari**, Sahab, S., Singh, H.M., Singh, R.P., Singh, B., Pathania, D., Singh, A., Yadav, S., Allen, T., Singh, S. and Tyagi, V.V., 2021. COVID-19 and waste management in Indian scenario: challenges and possible solutions. *Environmental Science and Pollution Research*, pp.1-22. **[Impact Factor-5.19&Q2]**
29. **Richa Kothari**, Ahmad, S., Pathak, V.V., Pandey, A., Kumar, A., Shankarayan, R., Black, P.N. and Tyagi, V.V., 2021. Algal-based biofuel generation through flue gas and wastewater utilization: a sustainable prospective approach. *Biomass Conversion and Biorefinery*, 11(4), pp.1419-1442. **[Impact Factor-4.05&Q2]**
30. Ahmad, S., **Richa Kothari**, Pathak, V.V., Tyagi, V.V., Pandey, A.K. and Sari, A., 2021. Response surface methodology–based extraction optimization with application of ZrCl₄ as novel quenching agent for enhancement of bio-oil yield from *Jatropha curcas* and *Chlorella pyrenoidosa*. *Biomass Conversion and Biorefinery*, pp.1-15. **[Impact Factor-4.05&Q2]**
31. **Richa Kothari**, Ahmad, S., Samykano, M., Tyagi, V.V., Pandey, A.K. and Saidur, R., 2021, March. Optimization of Extraction Process of *Jatropha* Oil by Using Quenching Agent. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1127, No. 1, p. 012003). IOP Publishing. **[Scopus]**
32. Nagilla, D.K., Tyagi, V.V., Kadirgama, K., Chopra, K., Pandey, A.K. and **Richa Kothari**, 2021, March. Application of Phase Change Materials in Solar Water Heating Systems for Thermal Energy Storage. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1127, No. 1, p. 012012). IOP Publishing. **[Scopus]**

33. Tyagi, V.V., Nagilla, D.K., Selvaraj, J., Chopra, K., **Richa Kothari** and Pandey, A.K., 2021, March. Thermal Energy Storage in Phase Change Material Integrated Solar Collectors for Air Heating Application. In IOP Conference Series: Materials Science and Engineering (Vol. 1127, No. 1, p. 012006). IOP Publishing. [**Scopus**]
34. **Richa Kothari**, Pandey, A., Ahmad, S., Singh, H.M., Pathak, V.V., Tyagi, V.V., Kumar, K. and Sari, A., 2021. Utilization of Chlorella pyrenoidosa for Remediation of Common Effluent Treatment Plant Wastewater in Coupling with Co-relational Study: An Experimental Approach. Bulletin of Environmental Contamination and Toxicology, pp.1-11. [**Impact Factor-2.80 &Q2**]
35. Fatima, S., Sehgal, A., Mishra, S.K., Mina, U., Goel, V., Vijayan, N., Tawale, J.S., **Richa Kothari**, Ahlawat, A. and Sharma, C., 2021. Particle composition and morphology over urban environment (New Delhi): Plausible effects on wheat leaves. Environmental Research, p.111552. [**Impact Factor-6.49&Q1**]
36. **Richa Kothari**, Singh, A., Pandey, A.K., Tyagi, V.V., Egamberdieva, D., Bellingrath-Kimura, S.D. and Arora, N.K., 2021. Valorization of bio-waste material: future dimensions for path towards sustainability. Environmental Sustainability, 4, 199–200
37. Kour, G., **Richa Kothari**, Dhar, S., Pathania, D. and Tyagi, V.V., 2021. Impact assessment on water quality in the polluted stretch using a cluster analysis during pre-and COVID-19 lockdown of Tawi river basin, Jammu, North India: an environment resiliency. Energy, Ecology and Environment, pp.1-12. [**Scopus&Q2**]
38. Majhi, P.K., **Richa Kothari**, Arora, N.K., Pandey, V.C. and Tyagi, V.V., 2021. Impact of pH on Pollutational Parameters of Textile Industry Wastewater with Use of Chlorella pyrenoidosa at Lab-Scale: A Green Approach. Bulletin of Environmental Contamination and Toxicology, pp.1-6. [**Impact Factor-2.80&Q2**]
39. Ahmad, S., **Richa Kothari**, Singh, H.M., Tyagi, V.V., Singh, B. and Sari, A., 2021. Experimental investigation of microalgal harvesting with low cost bottom ash: Influence of temperature and pH with zeta potential and thermodynamic function. Environmental Technology & Innovation, 22, p.101376. [**Impact Factor-7.75&Q1**]
40. Pathak, A., **Richa Kothari**, Vinoba, M., Habibi, N. and Tyagi, V.V., 2021. Fungal bioleaching of metals from refinery spent catalysts: A critical review of current research, challenges, and future directions. Journal of Environmental Management, 280, p.111789. [**Impact Factor-8.91&Q1**]
41. Pathak, A., Vinoba, M. and **Richa Kothari**, 2021. Emerging role of organic acids in leaching of valuable metals from refinery-spent hydroprocessing catalysts, and potential techno-economic challenges: a review. Critical Reviews in Environmental Science and Technology, 51(1), pp.1-43. [**Impact Factor- 11.75&Q1**]
42. Jitendra Kumar Singh, Bhawana Chaurasia, Anamika Dubey, Alexis Manuel FaneiteNoguera, Aditi Gupta, **Richa Kothari**, Chandrama Prakash Upadhyaya, Ashwani Kumar, Abeer Hashem, Abdulaziz A Alqarawi, ElsayedFathi Abd Allah, 2021, Biological Characterization and Instrumental Analytical Comparison of Two Biorefining

Pretreatments for Water Hyacinth (*Eichhornia crassipes*) Biomass Hydrolysis; Sustainability [Impact Factor- 3.47&Q1]

Year: 2020

43. **Richa Kothari**, Vathistha, A., Singh, H.M., Pathak, V.V., Tyagi, V.V., Yadav, B.C., Ashokkumar, V. and Singh, D.P., 2020. Assessment of Indian bioenergy policy for sustainable environment and its impact for rural India: Strategic implementation and challenges. *Environmental Technology & Innovation*, p.101078. [Impact Factor- 7.75&Q1]
44. Singh, H.M., Tyagi, V.V., **Richa Kothari**, Azam, R., Slathia, P.S. and Singh, B., 2020. Bioprocessing of cultivated *Chlorella pyrenoidosa* on poultry excreta leachate to enhance algal biomolecule profile for resource recovery. *Bioresource Technology*, p.123850. [Impact Factor-11.88&Q1]
45. Ahmad, S., Chaudhary, S., Pathak, V.V., **Richa Kothari** and Tyagi, V.V., 2020. Optimization of direct transesterification of *Chlorella pyrenoidosa* catalyzed by waste egg shell based heterogenous nano-CaO catalyst. *Renewable Energy*. Volume 160, Pages 86-97. [Impact Factor- 8.63&Q1]
46. Majhi, P.K., **Richa Kothari**, Pandey, A. and Tyagi, V.V., Adsorptive behavior of free and immobilized *Chlorella pyrenoidosa* for decolorization. *Biomass Conversion and Biorefinery*, pp.1-14. [Impact Factor-4.05&Q2]
47. Atin K. Pathak, **Richa Kothari**, V. V. Tyagi, Sanjeev Anand, 2020. Integrated approach for textile industry wastewater for efficient hydrogen production and treatment through solar PV electrolysis. *International journal of Hydrogen Energy*. <https://doi.org/10.1016/j.ijhydene.2020.03.079> [Impact Factor- 7.13&Q1]
48. R. Azam, **Richa Kothari**, H.M Singh, S.Ahmad,V.A. Kumar, and V.V. Tyagi, 2020. Production of algal biomass for its biochemical profile using slaughterhouse wastewater for treatment under axenic conditions. *Bioresource Technology*, p.123116.[Impact Factor- 11.88&Q1]
49. AhmadS., **Richa Kothari**, R. Shankarayan, and V.V. Tyagi. Temperature dependent morphological changes on algal growth and cell surface with dairy industry wastewater: an experimental investigation. *3 Biotech*, 10(1), p.24.[Impact Factor- 2.89&Q2]

Year: 2019

50. M. Baqir, S.K. Bharti, **Richa Kothari**, R.P. Singh. Assessment of an energy-efficient metal chulha for solid biomass fuel and evaluation of its performance. *International Journal of Environmental Science and Technology*, 16(11), pp.6773-6784. [Impact Factor- 3.51&Q2]
51. S. Ahmad, **Richa Kothari**, V.V. Pathak, M.K. Pandey. Fuel quality index: a novel experimental evaluation tool for biodiesel prepared from waste cooking oil. *Waste and Biomass Valorization*, 10(8), pp.2237-2247. [Impact Factor- 3.44&Q2]

52. S. Ahmad, **Richa Kothari**, D. Pathania, and V.V. Tyagi. Optimization of nutrients from wastewater using RSM for augmentation of *Chlorella pyrenoidosa* with enhanced lipid productivity, FAME content, and its quality assessment using fuel quality index. *Biomass Conversion and Biorefinery*, pp.1-18. **[Impact Factor- 4.05&Q2]**
53. M. Baqir, **Richa Kothari**, R.P. Singh. Characterization and ranking of subtropical trees in a rural plantation forest of Uttar Pradesh, India, as fuel wood using fuel wood value index (FVI). *Environment, Development and Sustainability*, 21(2), pp.763-776. **[Impact Factor- 4.08&Q2]**
54. H.M.Singh, **Richa Kothari**, R. Gupta, V.V. Tyagi. Bio-fixation of flue gas from thermal power plants with algal biomass: Overview and research perspectives. *Journal of environmental management*. Volume 245, Pages 519-539. **[Impact Factor-8.91&Q1]**
55. A Pandey, V. V Pathak, **Richa Kothari**, PN Black, VV Tyagi. Experimental studies on zeta potential of flocculants for harvesting of algae. *Journal of environmental management* 231, 562-569, 2019. **[Impact Factor- 8.91&Q1]**

Year: 2018

56. S Ahmad, VV Pathak, **Richa Kothari**, A Kumar, SBN Krishna. Optimization of nutrient stress using *C. pyrenoidosa* for lipid and biodiesel production in integration with remediation in dairy industry wastewater using response surface methodology, *3 Biotech*, 2018. **[Impact Factor- 2.89&Q2]**
57. J.K. Singh, P. Vyas, A. Dubey, C.P. Upadhyaya, **Richa Kothari**, V.V. Tyagi, A. Kumar. Assessment of different pretreatment technologies for efficient bioconversion of lignocellulose to ethanol. *Frontiers in Bioscience. Scholar*, 10, 350-371, June 1, 2018. **[Impact Factor- 2.43&Q2]**
58. Bhavisha Sharma, **Richa Kothari**, Rajeev Pratap Singh. Growth performance, metal accumulation and biochemical responses of Palak (*Beta vulgaris* L. var. Allgreen H-1) grown on soil amended with sewage sludge-fly ash mixtures. *Environmental Science and Pollution Research*. 25, 12619–12640, February, 2018. **[Impact Factor- 5.19&Q2]**
59. Mohammad Baqir, **Richa Kothari**, Rana Pratap Singh. Fuel wood consumption, and its influence on forest biomass carbon stock and emission of carbon dioxide. A case study of Kahinaur, district Mau, Uttar Pradesh, India. *Biofuels*. March, 2018. **[Impact Factor- 2.95&Q2]**
60. Mohammad Baqir, **Richa Kothari**, Rana Pratap Singh. Characterization and ranking of subtropical trees in a rural plantation forest of Uttar Pradesh, India as fuel wood using Fuel wood Value Index (FVI). *Environment, Development and Sustainability*. January, 2018. **[Impact Factor- 4.08&Q2]**
61. Shamsad Ahmad, **Richa Kothari**, Vinayak V. Pathak, M.K. Pandey. Fuel Quality Index: A Novel Experimental Evaluation Tool for Biodiesel Prepared from Waste Cooking Oil. *Waste and Biomass Valorization*, 1-11, 2018. **[Impact Factor-3.44&Q2]**

62. **Richa Kothari**, Shamshad Ahmad, Vinayak V. Pathak, Arya Pandey, Saubhagya, Kapil Kumar, V.V. Tyagi. Experiment based thermodynamic feasibility with co-digestion of nutrient-rich biowaste materials for biogas production. 3 Biotech, 8 (1), 34, 2018. [**Impact Factor- 2.89&Q2**]

Year: 2017

63. Har Mohan Singh, Atin K. Pathak, Kapil Chopra, V. V. Tyagi, Sanjeev Anand, **Richa Kothari**. Microbial Fuel Cell: A Sustainable Solution for Bioelectricity Generation and Wastewater Treatment, Biofuels, 1-21, 2018.[**Impact Factor-2.73&Q2**]
64. Shamshad Ahmad, Vinayak V. Pathak, **Richa Kothari**, Rajeev Pratap Singh; Prospects for pretreatment methods of lignocellulosic waste biomass for biogas enhancement: opportunities and challenges, Biofuels (2017): <https://doi.org/10.1080/17597269.2017.1378991>. [**Impact Factor-2.73&Q2**]
65. Vinod Kumar, Jogendra Singh, V. V. Pathak, Shamshad Ahmad, **Richa Kothari**. Experimental and kinetics study for phytoremediation of sugar mill effluent using water lettuce (*Pistia stratiotes* L.) and its end use for biogas production, 3 Biotech (2017) 7:330; DOI:10.1007/s13205-017-0963-7. .[**Impact Factor- 2.89&Q2**]
66. **Richa Kothari**, Arya Pandey, Shamshad Ahmad, Ashwani Kumar, Vinayak V. Pathak, V. V. Tyagi. Microalgal cultivation for value-added products: a critical enviro-economical assessment, 3Biotech. August-2017; Vol. 07; (04). .[**Impact Factor- 2.89&Q2**]
67. MohdBaqir, Ashish K. Mishra, **Richa Kothari**, Rana Pratap Singh. Calorific Value and Fuel Wood Consumption Patterns of a Forest Plantation Made by Villagers at Kahinure (Distt Mau), Uttar Pradesh, India. Climate Change and Environmental Sustainability. Vol.05; No.1; April 2017; pp.35-41.
68. **Richa Kothari**, Virendra Kumar, Vinayak V. Pathak, V.V. Tyagi. Sequential hydrogen and methane production with simultaneous treatment of dairy industry wastewater: Bioenergy profit approach, International Journal of Hydrogen Energy. Vol.42 (8); Feb. 2017; pp. 4870-4879. .[**Impact Factor-7.13&Q1**]
69. **Richa Kothari**, Virendra Kumar, Vinayak V. Pathak, Shamshad Ahmad, OchiengAoyi, V.V.Tyagi; A critical review on factors influencing fermentative hydrogen production, *Frontier of Biosciences* Vol.22; March 2017; pp.1195-1220 . [**Impact Factor-4.00&Q2**]
70. **Richa Kothari**, Vinayak V. Pathak, Arya Pandey, Shamshad Ahmad, Chandni Srivastava, V.V. Tyagi, A novel method to harvest *Chlorella sp.* with low cost bio-flocculent: Influence of temperature with kinetic and thermodynamic functions, *Bioresource Technology*, Vol. 225; Feb.2017; pp.84-89.[**Impact Factor- 11.88&Q1**]

Year: 2016

71. V. Kumar, Richa Kothari, V.V.Pathak and S K Tyagi, Optimization of Simple Sugars and Process pH for Effective Biohydrogen Production Using *Enterobacter Aerogens*: An

Experimental Study, Journal of Scientific & Industrial Research Vol 75, October 2016, pp. 626-631.[**Impact Factor-1.05& Q2**]

72. Virendra Kumar, **Richa Kothari**, Vinayak V. Pathak, S. K. Tyagi, Optimization of Substrate Concentration for Sustainable Biohydrogen Production and Kinetics from Sugarcane Molasses: Experimental and Economical Assessment; Waste Biomass Valorization. 9, 273–281 (2018).[**Impact Factor- 3.44 & Q2**]
73. Vinayak V. Pathak, **Richa Kothari**, A. K. Chopra, Shamshad Ahmad, A. K. Pandey, N. A. Rahim; Effect of solvent extraction methods of oil yields and its parametric feasibility with *C. pyrenoidosa*. IEEE conference Proceeding, 14-15 November CEAT-2016, Kuala Lumpur, Malaysia.(<http://digitallibrary.theiet.org/content/conferences/10.1049/cp.2016.1344>). [**Scopus**]
74. V.V. Tyagi, A.K. Pandey, D. Buddhi, **Richa Kothari**. Thermal performance assessment of encapsulated PCM based thermal management system to reduce peak energy demand in building. 2016; Energy and Buildings. Volume 117,Pages 44-52.[**Impact Factor- 7.20&Q1**]

Year: 2015

75. Vinayak V. Pathak, **Richa Kothari**, A. K. Chopra, D. P. Singh.Experimental and Kinetic Studies for Phycoremediation and Dye Removal by *Chlorella Pyrenoidosa* from Textile Wastewater; International Journal of Environmental Management, 2015, Nov 1;163:270-7 .[**Impact Factor- 8.91&Q1**]
76. **Richa Kothari**, V. V. Pathak,ShamshadAhmad,Tanu Allen. Developments in Bioenergy and Sustainable Agriculture Sectors for Climate Change Mitigation in Indian Context: A State-of-Art; Climate Change and Environmental Sustainability, October, 2015, 3(2):93-103.
77. Satyendra Singh, B.C. Yadav, Monika Singh, **Richa Kothari**. A review Report on Nanostructured Ferrites as Liquefied Petroleum Gas Sensor. International Journal of Science, Technology & Society, Jan - June, (2015). Volume. 1, No. 1. [**Impact Factor- 1.17&Q4**]

Year: 2014

78. Vinayak V. Pathak, D. P. Singh, **Richa Kothari**, A. K. Chopra. Phycoremediation of textile wastewater by unicellular microalga *Chlorella pyrenoidosa*, Cellular and Molecular Biology 60 (5), 35-40; 2014. . [**Impact Factor-1.7&Q3**]
79. **Richa Kothari**, V.V.Tyagi, S.K Tyagi, Different aspects of Dry anaerobic digestion for bio- energy: An overview, Renewable and Sustainable Energy Reviews, 174-195.[**Impact Factor-16.79& Q1**]
80. Tyagi V. V., Pandey A. K., **Richa Kothari**, Tyagi S.K. Tyagi, Thermodynamics and Performance Evaluation of encapsulated PCM based energy storage system for heating

application in buildings. Journal of Thermal Analysis and Calorimetry. 2014, 15(1)915-924. . [Impact Factor- 4.75&Q2]

81. A Pathak, **Richa Kothari**, MG Dastidar, TR Sreekrishnan, D. J Kim
Comparison of bioleaching of heavy metals from municipal sludge using indigenous sulfur and iron-oxidizing microorganisms: Continuous stirred tank reactor studies, Journal of Environmental Science and Health, Part A 49 (1), 93-100. [Impact Factor- 2.58&Q2]

Year: 2013

82. **Richa Kothari**, Ravindra Prasad, Virendra Kumar, D. P. Singh, Production of Biodiesel from microalgae *Chlamydomonas polypyrenoides* grown on dairy industry wastewater, International Journal of Bioresource Technology. 2013, 144, 499-503. [Impact Factor- 11.88&Q1]

Year: 2012

83. Tyagi V.V., Buddhi D., **Richa Kothari**, Tyagi S.K., Phase change material (PCM) based thermal management system for cool energy storage application in building: An experimental study, International Journal of Energy & Buildings, 51, 248-254, 2012. [Impact Factor- 7.20&Q1]
84. **Richa Kothari**, Pathak Vinayak V., Kumar Virendra, Singh D. P., Experimental study for growth potential of unicellular alga *Chlorella pyrenoidosa* on dairy waste water: An integrated approach for treatment and biofuel production. (2012). International Journal of Bioresource Technology, Volume 116. Page 466-470. [Impact Factor- 11.88&Q1]
85. **Richa Kothari**, Singh D. P., Tyagi V. V. and Tyagi S. K., Fermentative Hydrogen Production – An Alternative Clean Energy Source, Renewable and Sustainable Energy Reviews, 16, 2337– 2346, 2012. [Impact Factor-16.79& Q1]
86. Panwar N. L., **Richa Kothari**, Tyagi V. V., Thermo chemical conversion of biomass – Eco friendly energy routes, Renewable and Sustainable Energy Reviews, 16, 1801– 1816, 2012. [Impact Factor-16.79&Q1]
87. Tyagi V. V., Panwar N. L., Rahim N. A. and **Richa Kothari**, Review on Solar Air Heating System with and without Thermal Energy Storage System, Renewable and Sustainable Energy Reviews, 16, 2289– 2303, 2012. [Impact Factor-16.79&Q1]

Year:2011

88. Singh R. P., Tyagi V.V, Allen Tanu, Hakimi M. Ibrahim and **Richa Kothari**, An Overview for Exploring the Possibilities of Potential Energy Generation from Municipal Solid Waste (MSW) in Indian Scenario, Renewable and Sustainable Energy Reviews, Volume 15, Issue 9, December 2011, 4797- 4808. [Impact Factor-16.79&Q1]
89. **Richa Kothari**, Kumar Virendra, & Tyagi Vineet Veer. Assessment of waste treatment and energy recovery from dairy industrial waste by anaerobic digestion. The Official Journal of

Institute of Integrative Omics and Applied Biotechnology (IIOABJ), 2011; Vol. 2(1) 1-6.
[Impact Factor-3.37]

Year: 2010

90. **Richa Kothari**, Tyagi V.V. & Pathak A. Waste-to-energy: a way from renewable energy sources to sustainable development. (2010). Renewable and Sustainable Energy Reviews, Volume 14, Page 3164-3170. [Impact Factor-16.79&Q1]

Year: 2003-2008

91. **Richa Kothari**, Buddhi D. & Sawhney R.L. Comparison of environmental and economic aspects of various hydrogen production methods. Renewable and Sustainable Energy Reviews, Volume 12, Issue 2, February 2008, Page 553- 563. [Impact Factor-16.79&Q1]
92. **Richa Kothari**, Buddhi D. & Sawhney R.L. Optimization of electrolytic input power for the production of hydrogen, International Journal of Hydrogen Energy (IJHE) 2006; Volume 31, Issue 15, Page 2329-2336. [Impact Factor-7.13&Q1]
93. Buddhi D., **Richa Kothari** & Sawhney R.L. An experimental analysis to study the effect of electrolytic concentration on the rate of hydrogen production. International Journal of Green Energy, 2006; volume 3, No. 4, Page 381-395. [Impact Factor-3.20&Q2]
94. **Richa Kothari**, Buddhi D. & Sawhney R.L. Studies on the effect of temperature of the electrolytes on the rate of hydrogen production. International Journal of Hydrogen Energy (IJHE) 2005; Volume 30, Issue 3, Page 261-263. [Impact Factor-7.13&Q1]
95. **Richa Kothari**, Buddhi D. & Sawhney R.L. Sources and technology for hydrogen production: a review. International Journal of Global Energy Issues (IJGEI) 2004; Volume 21, No. 1& 2, Page 154-178. [Impact Factor- 0.53]
96. Buddhi D., Tyagi Punam, Sawhney R.L. **Richa Kothari**, Ground water quality of Pithampur Industrial area: opinion survey of the residents. Indian Journal of Environmental Protection (IJEP) 2004, Volume 24, No. 3, Page 167-172. [Impact Factor- 0.24&Q4]
97. Tyagi Punam, Buddhi D., Sawhney R.L. & **Richa Kothari**, A correlation among physico-chemical parameters of Ground water in and around Pithampur Industrial Area of M.P., India. Indian Journal of Environmental Protection (IJEP) 2003; Volume 23, No. 11, Page 1276-1282. [Impact Factor-0.24&Q4]

CHAPTERS IN EDITED BOOK

1. Applications of gas and VOC sensors for industry and environmental monitoring: Current trends and future implications, in Complex and composite metal oxides for gas

and VOC and humidity sensors Volume 1 Fundamentals and approaches. 1st Edition - October 16, 2023, Editors: Bal Chandra Yadav, Pragati Kumar, Paperback ISBN: 9780323953856, eBook ISBN: 9780323958363

2. Kouser, R., Bharti, A., Azam, R., Pathania, D., & **Richa Kothari**. (2023). Techno-Economic Analysis and Life Cycle Assessment of Bio-Based Waste Materials for Biogas Production: An Indian Perspective. In *Industrial Microbiology and Biotechnology: Emerging concepts in Microbial Technology* (pp. 729-748). Singapore: Springer Nature Singapore.
3. Ahmad, S., Bharti, A., Haq, M. I., & **Richa Kothari** (2023). Bioeconomy: Current Status and Challenges. *Sustainable Butanol Biofuels*, 57-75.
4. **Richa Kothari**, Gorla, K., Bharti, A., Singh, H. M., Pathak, V. V., Pathak, A., & Tyagi, V. V. (2023). Sustainable Development Goals (SDGs-7) for Bioeconomy with Bioenergy Sector. In *Sustainable Butanol Biofuels* (pp. 29-56). CRC Press.
5. Kumari, S., Kumar, P., Ashokkumar, V., **Richa Kothari**., Rani, S., Singh, J., & Kumar, V. (2023). Butanol Biofuels: Current Status and Challenges. *Sustainable Butanol Biofuels*, 76-92.
6. Singh, R., Darjee, S., Rohtagi, B., Khandelwal, A., Langyan, S., Singh, A. K., & Kundan, S. (2023). Biobutanol Production Using Nanotechnology: A Way Forward. In *Sustainable Butanol Biofuels* (pp. 241-257). CRC Press.
7. Raina, S., Singh, H.M., **Richa Kothari**, Singh, A., Allen, T., Pandey, A.K. and Tyagi, V.V., 2022. Biomass to Energy: Scope, Challenges and Applications. Biomass, Bioenergy & Bioeconomy, pp.3-24.
8. Kumari, S., Kumar, V., **Richa Kothari**, Kumar, P. and Kumar, A., 2022. Biomass Utilization for Biodiesel Production: A Sustainable Technique to Meet Global Fuel Demands and Future Scope. In Biomass, Bioenergy & Bioeconomy (pp. 25-39). Springer, Singapore.
9. Singh, H.M., Raina, S., Pathak, A.K., Gorla, K., **Richa Kothari**, Singh, A., Pathak, A., Anand, S. and Tyagi, V.V., 2022. Bioenergy: Technologies and Policy Trends. In Biomass, Bioenergy & Bioeconomy (pp. 209-231). Springer, Singapore.
10. Ahmad, S., **Richa Kothari**, Iqbal, K., Chaudhary, S. and Khan, A.S., 2022. Algal Biofuel: Global Policies and Their Implication. In Biomass, Bioenergy & Bioeconomy (pp. 249-260). Springer, Singapore.
11. Singh, H.M., Raina, S., Tyagi, V.V. and **Richa Kothari**, 2022. Microbial bioprospecting for biorefinery application: Bottlenecks and sustainability. In Bioprospecting of Microbial Diversity (pp. 277-296). Elsevier.
12. Gorla, K., **Richa Kothari**, Singh, H.M., Singh, A. and Tyagi, V.V., 2022. Biohydrogen: potential applications, approaches, and hurdles to overcome. In Handbook of Biofuels (pp. 399-418). Academic Press.
13. Gagandeep Kour, **Richa Kothari**, Rifat Azam, Pradeep Kumar Majhi, Sunil Dhar, Deepak Pathania, V. V. Tyagi (2021) Conducting Polymer Based Nanoadsorbents for

Removal of Heavy Metal Ions/Dyes from Wastewater. In: Shahabuddin S., Pandey A.K., Khalid M., Jagadish P. (eds) *Advances in Hybrid Conducting Polymer Technology. Engineering Materials*. Springer, Cham. https://doi.org/10.1007/978-3-030-62090-5_7

14. Rishu Katwal, **Richa Kothari**, Deepak Pathania. (2021). An overview on degradation kinetics of organic dyes by photocatalysis using nanostructured electrocatalyst. In: *Delivering Low-Carbon Biofuels with Bioproduct Recovery: An Integrated Approach to Commercializing Bioelectrochemical Systems*, Pages 195-213; <https://doi.org/10.1016/B978-0-12-821841-9.00005-0>, Elsevier Publication
15. Rai, A., **Richa Kothari**, and Singh, D.P., 2020. Assessment of Available Technologies for Hospital Waste Management: A Need for Society. In *Waste Management: Concepts, Methodologies, Tools, and Applications* (pp. 860-876). IGI Global.
16. Ahmad, S., Pandey, A., Pathak, V.V., Tyagi, V.V. and **Richa Kothari**, 2020. Phycoremediation: algae as eco-friendly tools for the removal of heavy metals from wastewaters. In *Bioremediation of Industrial Waste for Environmental Safety* (pp. 53-76). Springer, Singapore.
17. Ahmad, S., Majhi, P.K., **Richa Kothari**, and Singh, R.P., 2020. Industrial wastewater footprinting: a need for water security in Indian context. In *Environmental Concerns and Sustainable Development* (pp. 197-212). Springer, Singapore.
18. Vinayak V. Pathak, Shamshad Ahmad, **Richa Kothari**; Implication of algal microbiology for wastewater treatment and bioenergy production. Edited by: Dr. R. C. Sobti, Dr. Naveen Kuamr Arora, Dr. Richa Kothari; *Environmental Biotechnology for Sustainable Future*; Springer; 263-286, 2019.
19. Atin K. Pathak, Kapil Chopra, Har Mohan Singh, V. V. Tyagi, **Richa Kothari**, A. K. Pandey; *Solar Energy Applications for Sustainable Environment: Present and Future Prospects*; Edited by: Dr. R. C. Sobti, Dr. Naveen Kuamr Arora, Dr. Richa Kothari; *Environmental Biotechnology for Sustainable Future*; Springer; 341-374, 2019.
20. Rifat Azam, Arya Pandey, Paul N. Black, V.V. Tyagi, **Richa Kothari**; Bio-processes for wastewater reuse: closed loop system for energy options. Edited by: Dr. Rajeev Pratap Singh, Dr. Shannon B. Hunt and Dr. Alan Kolok; Book Title "Water Conservation, Recycling and Reuse: Issues and Challenges". Springer. (In Press)
21. Poonam, Shamshad Ahmad, Narendra Kumar, Paromita Chakraborty, **Richa Kothari**; Plant growth under stress conditions: Boon or bane. Chapter-12. Edited by: Dr. Narendra Kumar and Dr. Vertika Shukla; Book Title: *Plant Adaptation Strategies in Changing Environment* to be published by Springer Nature, Singapore. December 2017.
22. Shamshad Ahmad, Arya Pandey, **Richa Kothari**, Vinayak. V. Pathak, Vineet V. Tyagi. Closed Photobioreactors: Construction Material and Influencing Parameters at the Commercial Scale; Chapter_ID_48469; *Photobioreactors: Advancements, Applications and Research*; Editors: Yiu Fai Tsang (The Education University of Hong Kong, Hong Kong SAR, China); Nova Science Publishers, Inc., NY. March 2017

23. Shamshad Ahmad, Arya Pandey, VinayakVandan Pathak, Vineet Veer Tyagi, **Richa Kothari**. Phycoremediation: Algae as ecofriendly tools for the removal of heavy metals from wastewaters; Bioremediation of Industrial Wastes for Environmental Safety. Editor: R.N.Bhargava. Springer International. (2020).
24. **Richa Kothari**, Arya Pandey, Virendra Kumar, V.V. Tyagi. Algae based biohydrogen: Current status of bioprocess routes, economical assessment and major bottlenecks, Algae and Environmental Sustainability. Springer. Editors: Singh, Bhaskar, BauddhKuldeep, Bux, Faizal (Eds.). 2016. (ISBN 978-81-322-2641-3)
25. Atin Kumar Pathak, **Richa Kothari**, Har Mohan Singh, Saubhagya Singh, V.V. Tyagi and D.P. Singh. Microbes: A Viable Mean for Wastewater Treatment and Source of Bioenergy (2016); Microbes and environmental management, Studium Press, Edited by: Prof. D. P. Singh and Dr. Jay Shankar Singh.
26. Atin Kumar Pathak, V. V. Tyagi, Har Mohan Singh, Vinayak V. Pathak, **Richa Kothari**, Chapter-2, Membrane-Less Microbial Fuel Cell: A Low-Cost Sustainable Approach for Clean Energy and Environment, Emerging Energy Alternatives for Sustainable Environment, TERI Press, Editors: D. P. Singh, Richa Kothari, V.V. Tyagi; ISBN-9788-1799-34111. March 2016
27. Vijay K. Jayswal, V. V. Tyagi, **Richa Kothari**, D. P. Singh, S. K. Samdarshi, Chapter-5, Role and Initiatives of Indian Government Policies for Growth of Wind Energy Sector, Emerging Energy Alternatives for Sustainable Environment, TERI Press, Editors: D.P.Singh, Richa Kothari, V.V. Tyagi; ISBN-9788-1799-34111. March 2016
28. Sonal Dixit, **Richa Kothari**, D.P. Singh, Chapter-17, Vermicomposting: A Potential Tool for Sustainable Management of Solid Waste, Emerging Energy Alternatives for Sustainable Environment, TERI Press, Editors: D. P. Singh, Richa Kothari, V.V. Tyagi; ISBN-9788-1799-34111. March 2016
29. Arya Pandey, Shamshad Ahmed, Virendra Kumar, Pratibha Singh, **Richa Kothari**, Chapter- 20, Solar Photocatalytic Treatments of Wastewater and Factors Affecting Mechanism: A Feasible Low-Cost Approach, Emerging Energy Alternatives for Sustainable Environment, TERI Press, Editors: D. P. Singh, Richa Kothari, V.V. Tyagi; ISBN-9788-1799-34111. March 2016
30. Bal Chandra Yadav, Praveen Kumar, Satyendra Singh, **Richa Kothari**, Chapter-23, Development in Metal Oxide Nanomaterial-based Solar Cells, Emerging Energy Alternatives for Sustainable Environment, TERI Press, Editors: D. P. Singh, Richa Kothari, V.V. Tyagi; ISBN-9788-1799-34111. March 2016
31. Virendra Kumar, **Richa Kothari**, S.K. Tyagi. Biological hydrogen production by facultative anaerobic bacteria *Enterobacteraerogens*(MTCC 8100), Recent Advances in Bioenergy Research, Volume III, SardarSwaran Singh National Institute of Renewable Energy Kapurthala, India, 2014. (ISBN 978-81-927097-2-7).
32. Vinayak V. Pathak, **Richa Kothari**, A.K. Chopra, Lhaihoichong Singson, Assessment of solid waste management and energy recovery from waste materials in Lucknow zoo: A

Case study, Recent Advances in Bioenergy Research, Volume III, Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala, India, 2014. (ISBN 978-81-927097-2-7).

33. **Richa Kothari**, Kumar Virendra, Panwar N.L., Tyagi V.V., Municipal Solid Waste Management Strategies for Renewable Energy Options, Chapter-2.8, August 2013; Sustainable Bioenergy Production; Editor: L. Wang, CRC Press, Taylor & Francis Group; ISBN: 1466505524
34. Pathak Vinayak V., Chopra A.K., **Richa Kothari**, Tyagi V.V., Growth Characteristics of *C. pyrenoidosa* cultured in nutrient enriched Dairy wastewater for pollutant reduction and Lipid productivity, Recent Advances in Bioenergy Research, Volume II, Sardar Swaran Singh National Institute of Renewable Energy Kapurthala, India, December 2012 (ISBN 978-81-927097-1-0).
35. Verma Neetu, **Richa Kothari**, Allen Tanu, Singh D.P., Assessment of lipid productivity of *Chlamydomonas polypyrenoides* cultured in tannery industry wastewater. Recent Advances in Bioenergy Research, Volume II, Sardar Swaran Singh National Institute of Renewable Energy Kapurthala, India, December 2012 (ISBN 978-81-927097-1-0).
36. **Richa Kothari**, Pathak Vinayak V., Singh D. P., Biodiesel production from algal species grown on dairy wastewater; Recent Advances in Bioenergy Research, Volume I, Sardar Swaran Singh National Institute of Renewable Energy Kapurthala, India, November 25-26, 2011 (ISBN 978-81-927097-0-3).
37. **Richa Kothari**, Verma Sarita and Tyagi V.V., Vermicomposting parameters play an effective role in green sustainable approach, Organic fertilizers: Type Production and Environmental Impact, Editor-Dr. Rajeev Pratap Singh 85-96 (2011); ISSN/ISBN No.: 978-1-62081-422-2

Book (Edited) Published:

1. Sohini Singh, Tanu Allen, **Richa Kothari**, Basic Environmental Sciences for Under Graduates. Published by Vayu Education of India, ISBN-978-83758-27-2, 2014.
2. D. P. Singh, **Richa Kothari**, V. V. Tyagi, Emerging energy alternatives for sustainable environment; TERI Publication House; Edited Book, TERI Press TERI II Habitat Place, Lodhi Road II New Delhi 110 003, March 2016 (ISBN 817993411X, 9788179934111)
3. R. C. Sobti, Naveen Kumar Arora, **Richa Kothari**; Environmental Biotechnology for Sustainable Future; Springer (ISBN 9811072833, 9789811072833), 2019.
4. **Rich Kothari**, V. V. Pathak, V.V. Tyagi; Algal Biofuel sustainable solution. TERI Press TERI II Habitat Place, Lodhi Road II New Delhi 110 003, 2020. (ISBN 9789386530943)
5. Syed Munir Khasru, Riasat Noor, Rajeev Pratap Singh, **Richa Kothari**; Environmental Sustainability and International Trade: Road Map for Sustainable Development (IPAG, 2020). ISBN: 9789843467751, Dhaka, Bangladesh, 2020.
6. **Richa Kothari**, Naveen Kumar Arora and Anita Singh; Biomass, Bioenergy & Bioeconomy. Springer (ISBN 978-981-19-2911-3)

7. Anita Singh, **Richa Kothari**, Somvir Bajar, Vineet Veer Tyagi; Sustainable Butanol Biofuels. CRC Press (ISBN: 978-0-367-76077-9)

Guest Editor in Special Issues:

1. Journal of Biofuels (Recent Advances in Biofuels in India, volume 10, 2019, IF:1.496)
2. Journal of Biomass Conversion and Biorefinery (Bio-based materials for biorefineries: innovative processes and concepts) (2021, IF:4.05)
3. Journal of Environmental Sustainability (Valorization of bio-waste material: future dimensions for path towards sustainability) (2021, UGC Care List)
4. Renewable and Sustainable Energy Reviews (Sustainability in Bioeconomy: Post COP26 challenges and opportunities) (2022, in Process, IF: 16.79).

Invited Lectures

1. Sunway University, Kuala Lumpur, Malaysia on the topic of “Bioenergy and Low Cost Wastewater Treatment”, 2018-09-03
2. INDO-US Bilateral Workshop, Banaras Hindu University, Varanasi, India, on the topic of “Water and Wastewater Management for Clean Energy Options”, 2018-11-17
3. National Conference on Renewable Energy And Sustainable Environment: Challenges and Remedies on the topic of “PV: Electrolysis for Hydrogen Production: Clean and Sustainable Approach”, 2018-04-24
4. Water and Wastewater Summit, Johannesburg, South Africa, on the topic of “Emerging Challenges and Possibilities for Wastewater Treatment”, 2015-02-25
5. Recent Advances in Bioenergy research, on the topic of “Biodiesel Production from Agal Species Grown on Dairy Wastewater”, 2011-11-26
6. 3rd Lucknow Science Congress, on the topic of “Emerging Challenges in Wastewater treatment and its Potential Application for Society” 2015-11-02
7. Gomti Yatra : An National Seminar on Rejuvenation of River Gomti: past Present and Future, on the topic of “Recent Trends of Solid Waste management for Eco-friendly Societies”, 2015-05-11
8. National Seminar on Visualization of Doctor Ambedkar Empowerment of Women in India: issues and prospectus, on the topic of “Role of Indian Women in Scientific era: Challenges and Prospects”, 2016-03-09
9. ICRESE -2017, Shri mata Vaishno devi University, Katra, Jammu, on the topic of “Carbon Water Foot Printing: An Ecofriendly Approach with algal Biomass”, 2017-03-20

AWARDS

1. WARI Fellowship Program, USA
2. Certificate of appreciation for publishing research work in journals with high impact factor by Babasaheb Bhimrao Ambedkar University, (Central University) Lucknow, India. 2014-08-15
3. Best paper Presentation in 5th IET International Conference on Clean Energy and Technology (CEAT2018), 2018-09-06

I here by declare that all statements above are true and complete to the best of my Knowledge.

Place: Jammu, India

Name: Dr. Richa Kothari