

# Nature Environment and Pollution Technology

Vol. 17, No. (2), June, 2018

## CONTENTS

1. **Wang Lian, Jian-jun Cheng, Ling-yan Zhi and Lin-gui Xin**, Study on Sand-blocking Benefits of Aeolian - Retaining Structures along the Railway 349-358
2. **Sana'a Odat, Mahmoud Abu-Allaban and Bra'ah AL-Trawneh**, Study on the Impact of Weather on Air Quality at Aqaba 359-366
3. **Lixin Wei, Xingwang Wang, Shuangqing Chen, Qiaozhen Li and Linqiong Guo**, Study of the Influencing Factors of Sedimentation Separation of Polymer-Contained Sewage in Gravity Sedimentation Tank 367-374
4. **Y. A. Murkute, S. S. Deshpande and S. N. Raut**, Hydrogeochemical Behaviour and Assessment of Groundwater Quality from WGAMG'0 Watershed, Chimur Taluka, Chandrapur District, Maharashtra 375-382
5. **Pengcheng Wang, Weiwei Wang and Junbiao Zhang**, Carbon Emission Measurement Using Different Utilization Methods of Waste Products: Taking Cotton Straw Resources of South Xinjiang in China as an Example 383-390
6. **N. Alandoonisi, H. M. Harbi, A. Atef, H. Aboualnaga and M. Rashed**, Geophysical Assessment of the Environmental Pollution at Downstream of Wadi Uranah, Southwest of Makkah, Saudi Arabia 391-398
7. **Subhas Adak, Kalyan Adhikari, Koushik Brahmachari and Soumya Bhattacharyya**, GIS Based Evaluation and Management of Soil Reaction for Environmental and Agricultural Sustainability Around a Thermal Power Plant 399-406
8. **Zhibin Duan, Ji Wang†, Bin Xuan, Xiongfei Cai and Yixiu Zhang**, Spatial Distribution and Health Risk Assessment of Heavy Metals in Urban Road Dust of Guiyang, China 407-412
9. **Mohsen Pournia, Nima Bahador and Ghasem Hosseini Salekdeh**, Microbial Diversity of Long-Duration Gas Injection Oil Reservoir Based on Next Generation Sequencing in South of Iran 413-420
10. **Long Wang and Li Kang**, Environmental Regulation, Manufacturing International Competitiveness, and Industry Heterogeneity: Empirical Evidence from China 421-432
11. **Caneon Kurien and Ajay Kumar Srivastava**, Advancement in the Design of Automotive Catalytic Filter for Meeting Environmental Emission Norms 433-438
12. **Md. Shakeel Abid and M. Andal**, Experimental Studies on Use of Polypropylene Material (Emptied Cement Bags) in Soils - An Alternative to Geosynthetics 439-444
13. **Li Bowen, Men Baohui, Gao Min, Duan Zhengda, Wang Dongfei and He Chengyu**, Water Environmental Quality Evaluation of the Karst Water in Beijing 445-451
14. **Kehinde D. Oyeyemi, Ahzegbobor P. Aizebeokhai and Oluwabunmi F. Attat**, Evaluation of Groundwater Pollution Near Municipal Solid Waste Landfill Site Using ERI Technique: A Case Study in Southwestern Nigeria 453-458
15. **Guijun Zhang, Congli Wang, Hongyan Yang, Zhi Zhou, Yigong Zhang and Li Zhao**, Experimental Research on Improving the Salt Tolerance of Plants in Coastal Saline Soil - A Case Study of Huanghua City in Hebei Province of China 459-468
16. **Pritha Chakraborty, Vakas Mustafa and Jayanthi Abraham**, Synthesis and Characterization of Chitosan Nanoparticles and Their Application in Removal of Wastewater Contaminants 469-478
17. **Guijia Qiu, Yuanyuan Wu, Luyi Qi, Chengguang Chen, Linfa Bao and Muqing Qiu**, Study on the Degradation of Azo Dye Wastewater by Zero-valent Iron 479-483
18. **Sana Akhtar, Bakhtawar Khalid, Mavara Mussawar, Sajid Rashid Ahmad, Shamaila Inayat and Sidra Asghar**, Tracking the Carbon Emissions from Polyester Fibre Processing Industrial Unit 485-490
19. **Hengyan Xie, Xinyu Wang, Junxiang Hao and Xin Zheng**, Optimization and Preparation of Soil Mixture with Agricultural Residue Maize Stalk for Cultivating Maize Seedling 491-498
20. **Xiuguo Zou, Yan Qian and Shuaitang Zhang**, Spatiotemporal Variations of PM<sub>2.5</sub> Concentration and Relationship with Other Criteria Pollutants in Nanjing, China 499-505

21. **Hao Wang, Huiyuan Zhong, Yang Tian, Jiansong Zhang and Huan Lu**, Variation of Organic Matter Decomposition in Constructed Wetlands with Enhancing Aeration 507-510
22. **Zhiwei Li and Lituo Cui**, The Assessment Method About the Impact of Intensive Sea Use Project on Marine Ecological Environment 511-515
23. **Anupama Bhardwaj, Jagtar Singh and Sonia Chaman**, Molecular Characterization of Native Dairy Wastewater Degrading Microbes Isolated from Dairy Industry Effluent 517-523
24. **J. O. Olowoyo, O. O. Agboola and A. E. Alaba**, Health Risk Assessment of Toxic Trace Metals in Private Car Dusts from Pretoria, South Africa 525-531
25. **Yichuan Zhang, Lifang Qiao and Jiangping Wang**, Analysis on the Rainwater Retention Capability of Mulches in Urban Green Space 533-537
26. **Wei Na**, Impact of Ultrasonication-Ozonation Pretreatment on Anaerobic Digestion of Sewage Sludge 539-542
27. **Jixia Zhou**, Status, Causes and Countermeasures of Environmental Pollution in China's Rural Tourism Development 543-549
28. **Sathish S., Vikram S. and Suraj R.**, Effectiveness of Turbidity Removal from Synthetic and Tannery Wastewater by Using Seeds of a Natural Coagulant *Citrullus lanatus* 551-553
29. **Na Sun, Xian Li, Peng Zhan, Fengping Hu and Zhanmeng Liu**, Degradation of Leachate Biochemical Effluents Using Heat Activated Persulfate Processes: Parameters Optimization and Removal Characteristics of Contaminants 555-562
30. **Yichuan Zhang, Lifang Qiao and Jiangping Wang**, Effects of Leaf Area Index and Degree of Canopy Cover of Green Turf and Ground Cover Plants on Rainwater Interception 563-568
31. **Merina Paul Das and L. Jeyanthi Rebecca**, Removal of Lead(II) by Phyto-inspired Iron Oxide Nanoparticles 569-574
32. **Wei Na**, Production of Lightweight Aggregates from Sewage Sludge and Dredged Sediment 575-578
33. **A. Fazilah, I. Darah and N. Ismail**, Phenanthrene-Degrading Bacteria, *Acinetobacter* sp. P3d from Contaminated Soil and Their Bioactivities 579-584
34. **Lin Sheng, LinLin Quan, Jicheng Qi and Yuling Zhu**, Application of a Two Stage Temperature and Aeration Control Strategy for Enhanced Diosgenin Production in an Improved Solid-State Fermentation Reactor 585-592
35. **Weiwei Wang, Ping Li and Junbiao Zhang**, Technical Efficiency of the Industry Development and Influencing Factors of Carbon Sequestration Forestry: Evidence from China's Forest Resource Inventory 593-601
36. **S. A. Abbasi, G. Ponnai and S. M. Taussef**, Proficiency of Brahmi (Indian Pennywort) *Hydrocotyle asiatica* in One-pot Secondary and Tertiary Treatment of Sewage in SHEFROL<sup>®</sup> System 603-609
37. **Jhimli Ghosh and P. Porchelvan**, Relationship Between Surface Temperature and Land Cover Types Using Thermal Infrared Band and NDVI for Vellore District, Tamilnadu, India 611-617
38. **L. N. Ol'shanskaya, N. A. Politaeva, O. A. Aref'eva, R. Sh. Valiev**, Intensification of Biomass Cultivation Process of *Lemna minor* at Physical Exposure 619-624
39. **Adnan Abubakr, M. H. Balkhi and Ashwani Kumar**, The Hydrochemistry of a Himalayan Lake Nigeen 625-629
40. **Gangfu Song, Wei Li, Jingrong Zhai, Shulei Sun, Yalin Li and Guoting Li**, Adsorption Isotherm Performance of Zr-Mn Binary Oxide for Efficient Removal of Antibiotics Tetracycline 631-635
41. **Kishori U. Sinnarkar**, Bird Diversity of Tarkarli, an Eco-tourism Destination in Maharashtra 637-641
42. **Aditya Kumar Singh and Chandan Sahu**, Efficacy of Neem (*Azadirachta indica* A. Juss) and Bael (*Aegle marmelos* L. Corea) Leaf Extracts as Biofertilizers in Cultivation of Mung Plant (*Vigna radiata* (L.) Wilczek) 643-648
43. **R. R. Ingavale and P. D. Raut**, Comparative Biodegradation Studies of LDPE and HDPE Using *Bacillus weihenstephanensis* Isolated from Garbage Soil 649-655
44. **Syeda Amber Fatima, Almas Hamid, Ghazala Yaqub, Anum Javed and Haseeb Akram**, Detection of Volatile Organic Compounds in Blood of Farmers and Their General Health and Safety Profile 657-660
45. **Andi Rahmad Rahim**, Application of Seaweed *Gracilaria verrucosa* Tissue Culture using Different Doses of Vermicompost Fertilizer 661-665

**The Journal  
is  
Currently  
Abstracted  
and  
Indexed  
in:**

**International Scientific Indexing with Impact Factor 1.953 (2016)**

**NAAS Rating of the Journal (2016) = 4.94**

**Scopus®, SJR (0.123) 2016**

**Index Copernicus (2016) = 109.45**

**EI Compendex of Elsevier**

**Indian Science Abstracts,  
New Delhi, India**

**Chemical Abstracts, U.S.A.**

**Elsevier Bibliographic  
Databases**

**Pollution Abstracts, U.S.A.**

**Zoological Records**

**Paryavaran Abstract,  
New Delhi, India**

**Indian Citation Index (ICI)**

**Electronic Social and Science  
Citation Index (ESSCI)**

**EBSCO: Environment Index™**

**Zetoc**

**Google Scholar**

**ProQuest, U.K.**

**J-Gate**

**Environment Abstract, U.S.A.**

**British Library**

**Centre for Research Libraries**

**WorldCat (OCLC)**

**JournalSeek**

**Connect Journals (India)**

**CSA: Environmental Sciences and Pollution Management**

**Research Bible (Japan)**

**Indian Science**

**Geobase**

**Elektronische  
Zeitschriftenbibliothek (EZB)**

**SHERPA/RoMEO**

**Directory of Science**

**CNKI Scholar (China National  
Knowledge Infrastructure)**

**Access to Global Online Research in Agriculture (AGORA)**

**AGRIS (UN-FAO)**

**Full papers are available on the Journal's Website:  
[www.neptjournal.com](http://www.neptjournal.com)**

**The journal is also included in the UGC (India) approved list of journals  
(As per their Notice dated 11-1-2017)**

**[www.neptjournal.com](http://www.neptjournal.com)**

# Nature Environment and Pollution Technology

## EDITORS

### Dr. P. K. Goel

Former Head, Deptt. of Pollution Studies  
Yashwantrao Chavan College of Science  
Vidyanagar, Karad-415 124  
Maharashtra, India

### Dr. K. P. Sharma

Former Professor, Ecology Lab, Deptt. of Botany  
University of Rajasthan  
Jaipur-302 004, India  
Rajasthan, India

**Marketing Manager:** Mrs. Apurva Goel Garg, C-102, Building No. 12, Swarna CGHS, Beverly Park, Kanakia, Mira Road (E)-401107, Distt. Thane, Maharashtra, India (**E-mail: journalnept@gmail.com**)

**Business Manager:** Mrs. Tara P. Goel, Technoscience Publications, 2 Shila Apartment, Shila Nagar, Karad-415 110, Maharashtra, India (**E-mail: contact@neptjournal.com**)

**Managaing Editor at Jaipur:** Dr. Subhashini Sharma, Department of Zoology, Rajasthan University, Jaipur, Rajasthan, India

All correspondence regarding publication of papers in the journal must be made only by e-mail ([contact@neptjournal.com](mailto:contact@neptjournal.com))

## EDITORIAL ADVISORY BOARD

1. **Dr. Prof. Malay Chaudhury**, Department of Civil Engineering, Universiti Teknologi PETRONAS, Malaysia
2. **Dr. Saikat Kumar Basu**, University of Lethbridge, Lethbridge AB, Canada
3. **Dr. Sudip Datta Banik**, Department of Human Ecology Cinvestav-IPN Merida, Yucatan, Mexico
4. **Dr. Elsayed Elsayed Hafez**, Deptt. of of Molecular Plant Pathology, Arid Land Institute, Egypt
5. **Dr. Dilip Nandwani**, College of Agriculture, Human & Natural Sciences, Tennessee State Univ., Nashville, TN, USA
6. **Dr. Ibrahim Umaru**, Department of Economics, Nasarawa State University, Keffi, Nigeria
7. **Dr. Prof. D.S. Mitchell**, Albury, Australia
8. **Dr. Prof. Alan Heritage**, Sydney, Australia
9. **Mr. Shun-Chung Lee**, Deptt. of Resources Engineering, National Cheng Kung University, Tainan City, Taiwan
10. **Samir Kumar Khanal**, Deptt. of Molecular Biosciences & Bioengineering, University of Hawaii, Honolulu, Hawaii
11. **Dr. Prof. P.K. Bhattacharya**, Dept. of Chemical Engineering, IIT, Kanpur, U.P., India
12. **Dr. Zawawi Bin Daud**, Faculty of Civil and Environmental Engg., Universiti Tun Hussein Onn Malaysia, Johor, Malaysia
13. **Dr. Srijan Aggarwal**, Civil and Environmental Engg. University of Alaska, Fairbanks, USA
14. **Dr. M. I. Zuberi**, Department of Environmental Science, Ambo University, Ambo, Ethiopia
15. **Dr. Prof. A.B. Gupta**, Dept. of Civil Engineering, MREC, Jaipur, India
16. **Dr. Kiran Tota-Maharaj**, Faculty of Engineering & Science University of Greenwich, Kent, ME4 4TB, United Kingdom
17. **Dr. Bing Jie Ni**, Advanced Water Management Centre, The University of Queensland, Australia
18. **Dr. Prof. S. Krishnamoorthy**, National Institute of Technology, Tiruchirapally, India
19. **Dr. Prof. (Mrs.) Madhoolika Agarwal**, Dept. of Botany, B.H.U., Varanasi, India
20. **Dr. Anthony Horton**, Envirocarb Pty Ltd., Australia
21. **Dr. Riccardo Buccolieri**, University of Salento-DISTEBA S.P. 6 Lecce-Monteroni - 73100 Lecce, Italy
22. **Dr. Prof. A.M. Deshmukh**, Dept. of Microbiology, Dr. B.A. Marathwada University Sub-Centre, Osmanabad, India
23. **Dr. Prof. M.P. Sinha**, Vinoba Bhave University, Hazaribagh India
24. **Dr. G.R. Pathade**, H.V. Desai College, Pune, Maharashtra, India
25. **Dr. Hossam Adel Zaqoot**, Ministry of Environmental Affairs, Ramallah, Palestine
26. **Dr. T.S. Anirudhan**, Dept. of Chemistry, University of Kerala, Trivandrum, Kerala, India
27. **Dr. James J. Newton**, Environmental Program Manager 701 S. Walnut St. Milford, DE 19963, USA
28. **Dr. M.G. Bodhankar**, Dept. of Microbiology, Yashwantrao Mohite College, Pune, India
29. **Dr. Murat Eyvaz**, Department of Environmental Engg. Gebze Inst. of Technology, Gebze-Kocaeli, Turkey
30. **Dr. Zhihui Liu**, School of Resources and Environment Science, Xinjiang University, Urumqi, China
31. **Dr. Sandeep Y. Bodkhe**, NEERI, Nagpur, India
32. **Dr. D. R. Khanna**, Gurukul Kangri Vishwavidyalaya, Haridwar, India
33. **Dr. S. Dawood Sharief**, Dept. of Zoology, The New College, Chennai, T. N., India
34. **Dr. B. N. Pandey**, Dept. of Zoology, Purnia College, Purnia, Bihar, India
35. **Dr. Xianyong Meng**, Xinjiang Inst. of Ecology and Geography, Chinese Academy of Sciences, Urumqi, China
36. **Dr. Ms. Shaheen Taj**, Dept. of Chemistry, Al-Ameen Arts, Science & Commerce College, Bangalore, India
37. **Dr. Nirmal Kumar, J. I.**, ISTAR, Vallabh Vidyanagar, Gujarat, India
38. **Dr. Wen Zhang**, Deptt. of Civil and Environmental Engineering, New Jersey Institute of Technology, USA