

TABLE OF CONTENTS

| | | |
|-----------|---|-----------|
| | Preface..... | IX |
| Chapter 1 | Evaluation of factors affecting on lipid extraction for recovery of fatty acids from <i>Nannochloropsis oculata</i> micro-algae to biodiesel production..... | 1 |
| | Mohammad Malakootian, Behnam Hatami, Shidwash Dowlatshahi and Ahmad Rajabizadeh | |
| Chapter 2 | Biodegradation of high concentrations of phenol by baker's yeast in anaerobic sequencing batch reactor..... | 7 |
| | Ali Asghar Najafpoor, Abbas Sadeghi, Hossein Alidadi, Mojtaba Davoudi, Batoul Mohebrad, Ahmad Hosseinzadeh, Salman Jafarpour and Asma Zarei | |
| Chapter 3 | Using ANN and EPR models to predict carbon monoxide concentrations..... | 15 |
| | Mohammad Shakerkhatibi, Nahideh Mohammadi, Khaled Zoroufchi Benis, Alireza Behrooz Sarand, Esmail Fatehifar and Ahmad Asl Hashemi | |
| Chapter 4 | Prevalence of noise induced hearing loss among vehicle drivers at Bandar Abbas freight terminal..... | 21 |
| | Leila Rezaei and Vali Alipour | |
| Chapter 5 | Antimicrobial activity, toxicity and stability of phytol as a novel surface disinfectant..... | 26 |
| | Mohammad Taghi Ghaneian, Mohammad Hassan Ehrampoush, Ali Jebali, Seyedhossein Hekmatimoghaddam and Mohammad Mahmoudi | |
| Chapter 6 | Performance evaluation of non-incineration treatment facilities for disinfection of medical infectious and sharps wastes in educational hospitals of Shahid Beheshti University of Medical Sciences in 2013..... | 30 |
| | Anooshiravan Mohseni Band-pay, Monireh Majlesi and Mona Tabrizi Azad | |
| Chapter 7 | Knowledge, attitude and performance of wood painter about harmful effects of solvents and dyes on human health..... | 35 |
| | Mohammad Miri, Reza Ali Fallahzadeh, Mohammad Hassan Ehrampoush and Mohammad Hossien Salmani | |
| Chapter 8 | Determination of the level of parasitic infection (<i>Cryptosporidium</i> and <i>Giardia</i>) of the vegetables marketed..... | 39 |
| | Moyad Avazpoor, Mohammad Taqi Yousefipoor, Majid Dusty, Mohsen Mehdipour, Fariba Seifipour and Zeinab Gholami | |
| Chapter 9 | Sulfur dioxide AQI modeling by artificial neural network in Tehran between 2007 and 2013..... | 43 |
| | Saeed Motesaddi, Parviz Nowrouz, Behrouz Alizadeh, Fariba Khalili and Reza Nemati | |

| | | |
|------------|---|-----|
| Chapter 10 | Evaluation of quality of urban life with emphasis on health | 49 |
| | Khalilullah Kazemi Khabiri, Mohammad Ajza Shokouhi, Omid Ali Kharazmi and Mohammad Reza Bemanian | |
| Chapter 11 | Evaluation of microbial contamination of ready-to-eat foods (pizza, frankfurters, sausages) | 53 |
| | Akbar Eslami, Zeinab Gholami, Shokofeh Nargesi, Bahareh Rostami and Moayed Avazpour | |
| Chapter 12 | Acute toxicity effect of glyphosate on survival rate of common carp, <i>Cyprinus carpio</i> | 59 |
| | Mohammad Forouhar Vajargah, Ahmad Mohamadi Yalsuyi, Masoud Sattari and Aliakbar Hedayati | |
| Chapter 13 | Bioremediation of methyl tertiary-butyl ether (MTBE) by three pure bacterial cultures | 65 |
| | Zabihollah Yousefi, Zeinab Tahernezhad, Seyed Noroddin Mousavinasab, Reza Safari and Ahmadreza Bekhradnia | |
| Chapter 14 | Effect of UV light on pentachlorophenol removal in the electro-Fenton process | 71 |
| | Zahra Heidari, Mohsen Motevasel and Nematollah Jaafarzadeh | |
| Chapter 15 | Investigation of formaldehyde removal from synthetic contaminated air by using human hair | 76 |
| | Amirreza Talaiekhosani, Mohammad Reza Talaei, Mehdi Yazdan and Seyed Masoud Mir | |
| Chapter 16 | Sulfur dioxide emissions in Iran and environmental impacts of sulfur recovery plant in Tabriz Oil Refinery | 82 |
| | Shokufeh Delfi, Mohammad Mosafery, Ali Khalafi and Khaled Zoroufchi Benis | |
| Chapter 17 | Assessment of air pollution in exercise centers and health risks | 90 |
| | Balal Oroji, Eisa Solgi and Asghar Sadighzadeh | |
| Chapter 18 | Emission evaluation of CO₂ and CH₄ gases in the selected gas pressure booster station in the Bangestan field of the National Iranian Oil Company | 95 |
| | Mehdi Ahmadi, Maedeh Rozkhosh and Nemat-allah Jaafarzadeh Haghhighifard | |
| Chapter 19 | Estimation of health effects (morbidity and mortality) attributed to PM10 and PM2.5 exposure using an Air Quality model in Bukan city, from 2015-2016 exposure using air quality model | 102 |
| | Bahram Kamarehie, Mansour Ghaderpoori, Ali Jafari, Mohammadamin Karami, Aliakbar Mohammadi, Khaled Azarshab, Afshin Ghaderpoury and Najaf Noorizadeh | |
| Chapter 20 | Evaluation of cardiovascular and respiratory mortality attributed to atmospheric SO₂ and CO using AirQ model | 108 |
| | Majid Kermani, Mohsen Dowlati, Sevda Fallah Jokandan, Mina Aghaei, Farshad Bahrami Asl and Sima Karimzadeh | |
| Chapter 21 | Assessment of role of concrete factories in particulate matter emissions, 2015-2016, using the AQI index and zoning by GIS software | 116 |
| | Shahnaz Kushkbaghi, Mohammad Hassan Ehrampoush and Seyed Abolghsem Mirhosseinidehabadi | |

| | | |
|------------|---|------------|
| Chapter 22 | Regeneration and treatment of sulfidic spent caustic using analytic hierarchy process..... | 123 |
| | Asadollah Karimi, Esmaeil Fatehifar, Reza Alizadeh and Iraj Ahadzadeh | |
| Chapter 23 | Modeling of CO and NO_x produced by vehicles in Mashhad, 2012..... | 129 |
| | Ali Asghar Najafpoor, Ahmad Hosseinzadeh, Somaye Allahyari, Allah Bakhsh Javid and Habibollah Esmaily | |
| Chapter 24 | Evaluation and analysis of gaseous emission in landfill area and estimation of its pollutants dispersion..... | 134 |
| | Amirreza Talaiekhosani, Somaye Bahrami, Seyed Mohammad Javad Hashemi and Sahand Jorfi | |
| Chapter 25 | An assessment on dispersion of carbon monoxide from a cement factory..... | 142 |
| | Gholamreza Goudarzi, Rajab Rashidi, Fariba Keishams, Mahsa Moradi, Shahram Sadeghi, Fereydoun Masihpour, Mojtaba Shegerd, Ehsan Abouee Mehrizi, Mohammad Veysi Shikhrobat and Yusef Omid Khaniabadi | |
| Chapter 26 | Effects of noise pollution on Samen district residents..... | 148 |
| | Asiyeh Moteallemi, Bijan Bina and Soheila Mortezaie | |
| Chapter 27 | Significance of physicochemical factors in the transmission of <i>Escherichia coli</i> and chloride..... | 153 |
| | Sahar Akhavan, Soheila Ebrahimi, Maryam Navabian, Mahmoud Shabanpour, Ali Mojtahedi and Alireza Movahedi Naeini | |
| Chapter 28 | Biomedical waste disposal systems of health facilities..... | 161 |
| | Sisay Derso, Girum Taye, Theodros Getachew, Atkure Defar, Habtamu Teklie, Kassahun Amenu, Terefe Gelibo and Abebe Bekele | |
| Chapter 29 | Risk assessment of noise pollution by analyzing the level of sound loudness resulting from central traffic..... | 170 |
| | Hadi Negahdari, Sirius Javadpour, Faramarz Moattar and Hashem Negahdari | |
| Chapter 30 | Estimating greenhouse gas emissions using emission factors from the Sugarcane Development Company..... | 180 |
| | Amir Zahedi, Sorour Ghodrati, Mehdi Ahmadimoghaddam and Nematollah Jaafarzadeh | |
| Chapter 31 | Assessing some heavy metals pollutions in sediments of the northern Persian Gulf (Bushehr province)..... | 186 |
| | Mehdi Bibak, Masoud Sattari, Ali Agharokh, Saeid Tahmasebi and Javid Imanpour Namin | |
| Chapter 32 | Adsorption of copper, lead and cadmium from aqueous solutions by activated carbon prepared from saffron leaves..... | 191 |
| | Shidvash Dowlatshahi, Ahmad Reza Haratinezhad Torbati and Mahshid Loloie | |
| Chapter 33 | Biodegradation of glyphosate herbicide by <i>Salinicoccus</i> spp isolated from Qom Hoze-soltan lake..... | 199 |
| | Yaser Sharifi, Ahmad Ali Pourbabaei, Ali Javadi, Mohammad Hossein Abdolmohammadi, Mehri Saffari, Abbas Morovvati | |

Chapter 34 **Humic acid removal from aqueous solutions by peroxi-electrocoagulation process**.....205
 Ahmad Reza Yazdanbakhsh, Majid Kermani, Sanaz Komasi, Ehsan Aghayani and Amir Sheikhmohammadi

Chapter 35 **Strategic management of solid waste in Tehran**.....211
 Monireh Majlessi, Aida Vaezi and Mohsen Mehdipour Rabori

Chapter 36 **Efficiency of horizontal roughing filter in removing nitrate, phosphate and chemical oxygen demand from effluent of waste stabilization pond**.....219
 Seyed Mostafa Khezri, Gharib Majidi, Hossein Jafari Mansoorian, Mohsen Ansari, Farideh Atabi, Taha Tohidi Mogaddam and Nahid Rashtchi

Chapter 37 **Feasibility of electrochemical oxidation process for treatment of saline wastewater**.....225
 Kavooos Dindarloo, Hamza Ali Jamali, Parvin Lakbala, Hamid Mahmoodi and Fatemeh Kazemi

Permissions

List of Contributors

Index