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DVV Clarification

3.3.2. ***Provide Cover page, content page and first page of Water Pollution/ Water Conservation, QSAR study on Melting Point , Partition cofficient & Aquas soliblity with ISBN numbers, title, author, Department/ School/ Division/ Centre/ Unit/ Cell, name and year of publication.***

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3.3.2 - Index

1. Cover page, content page and first page of Water Pollution/Water Conservation.
2. Cover page, content page and first page of QSAR study on Melting Point, Partition coefficient & Aqua's solubility with ISBN number, Title, author name and year of publication.

S. No.	Name of the Teacher	Title of Book/ Chapter Published	Title of the Paper	Title of the Proceeding of the conference	Name of the Conference	National/ International	Calendar year of Publication	ISSN number of the proceeding	Affiliating institute at the time of Publication	Name of the Publisher
1	Dr. Saroj Chahar (Zoology)	Water Pollution/ Water Conservation					2021	978-93-5516-000-3	Smt. Kamla Devi Gauridutt Mittal Mahila Mahavidhyalaya	Sumit Enterprises Dariya Ganj, New Delhi
2	Dr. Manish Rao (Chemistry)		QSAR study on Melting Point , Partition cofficient & Aquas soliblity	International Multidisciplinary Conference on Research , Technology & Engineering	International Multidisciplinary Conference on Research, Technology & Engineering	International	2022	978-93-91535-28-5	Smt. Kamla Devi Gauridutt Mittal Mahila Mahavidhyalaya	KJEI's Trinity Academy of Engineering conferenceworld

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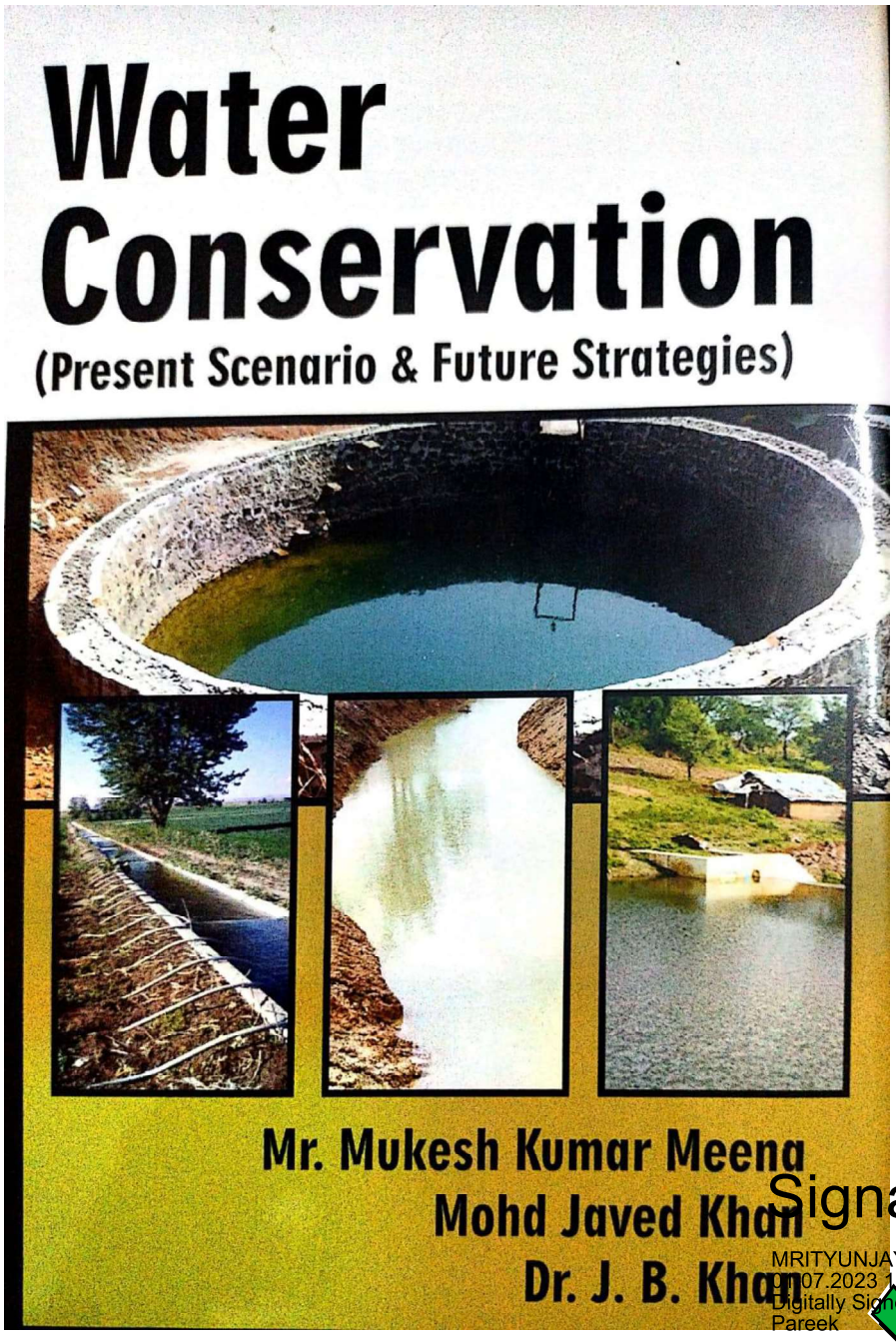

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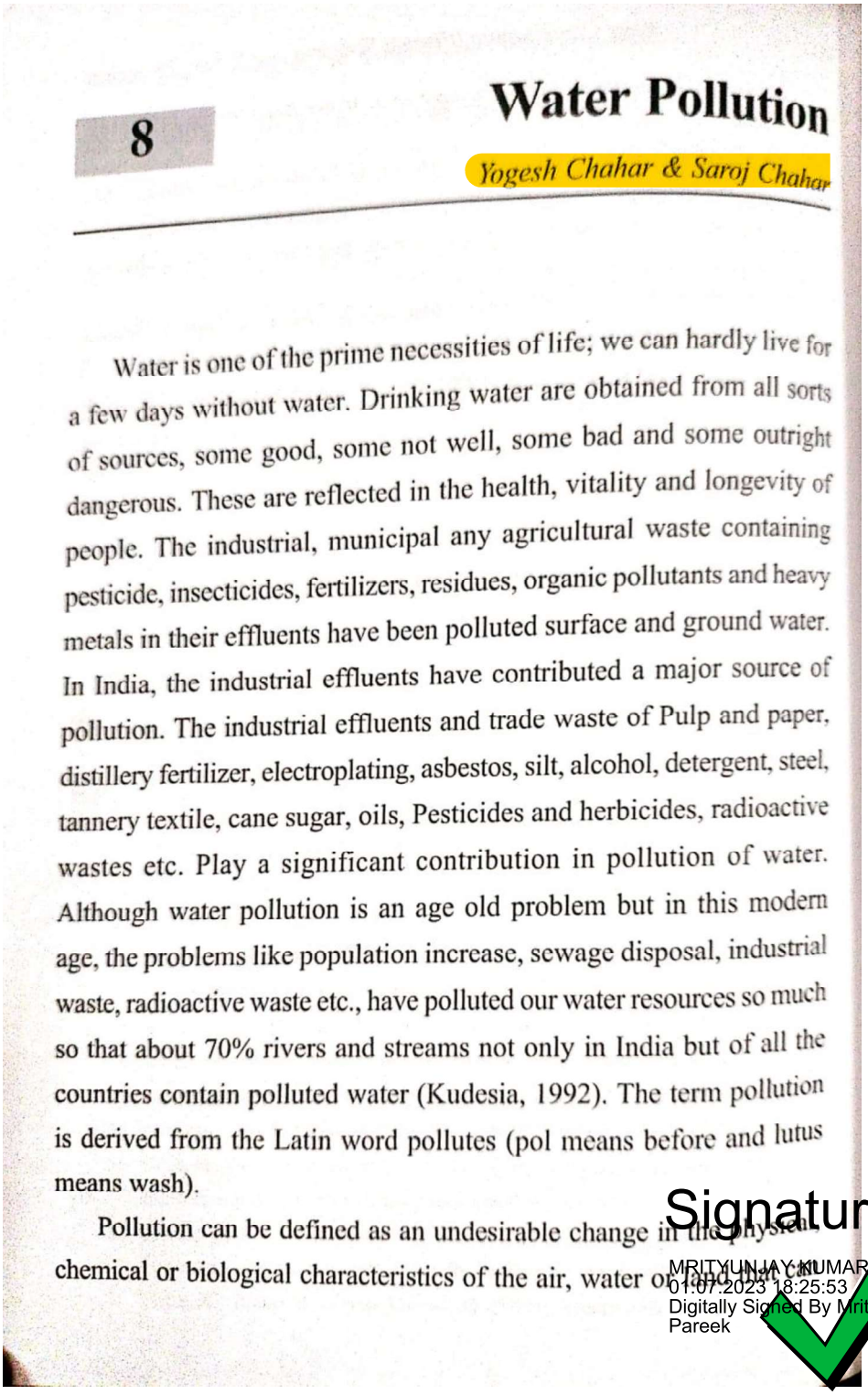

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Water Pollution

Yogesh Chahar & Saroj Chahar

Water is one of the prime necessities of life; we can hardly live for a few days without water. Drinking water are obtained from all sorts of sources, some good, some not well, some bad and some outright dangerous. These are reflected in the health, vitality and longevity of people. The industrial, municipal any agricultural waste containing pesticide, insecticides, fertilizers, residues, organic pollutants and heavy metals in their effluents have been polluted surface and ground water. In India, the industrial effluents have contributed a major source of pollution. The industrial effluents and trade waste of Pulp and paper, distillery fertilizer, electroplating, asbestos, silt, alcohol, detergent, steel, tannery textile, cane sugar, oils, Pesticides and herbicides, radioactive wastes etc. Play a significant contribution in pollution of water. Although water pollution is an age old problem but in this modern age, the problems like population increase, sewage disposal, industrial waste, radioactive waste etc., have polluted our water resources so much so that about 70% rivers and streams not only in India but of all the countries contain polluted water (Kudesia, 1992). The term pollution is derived from the Latin word pollutes (pol means before and lutus means wash).

Pollution can be defined as an undesirable change in the physical, chemical or biological characteristics of the air, water or land that can

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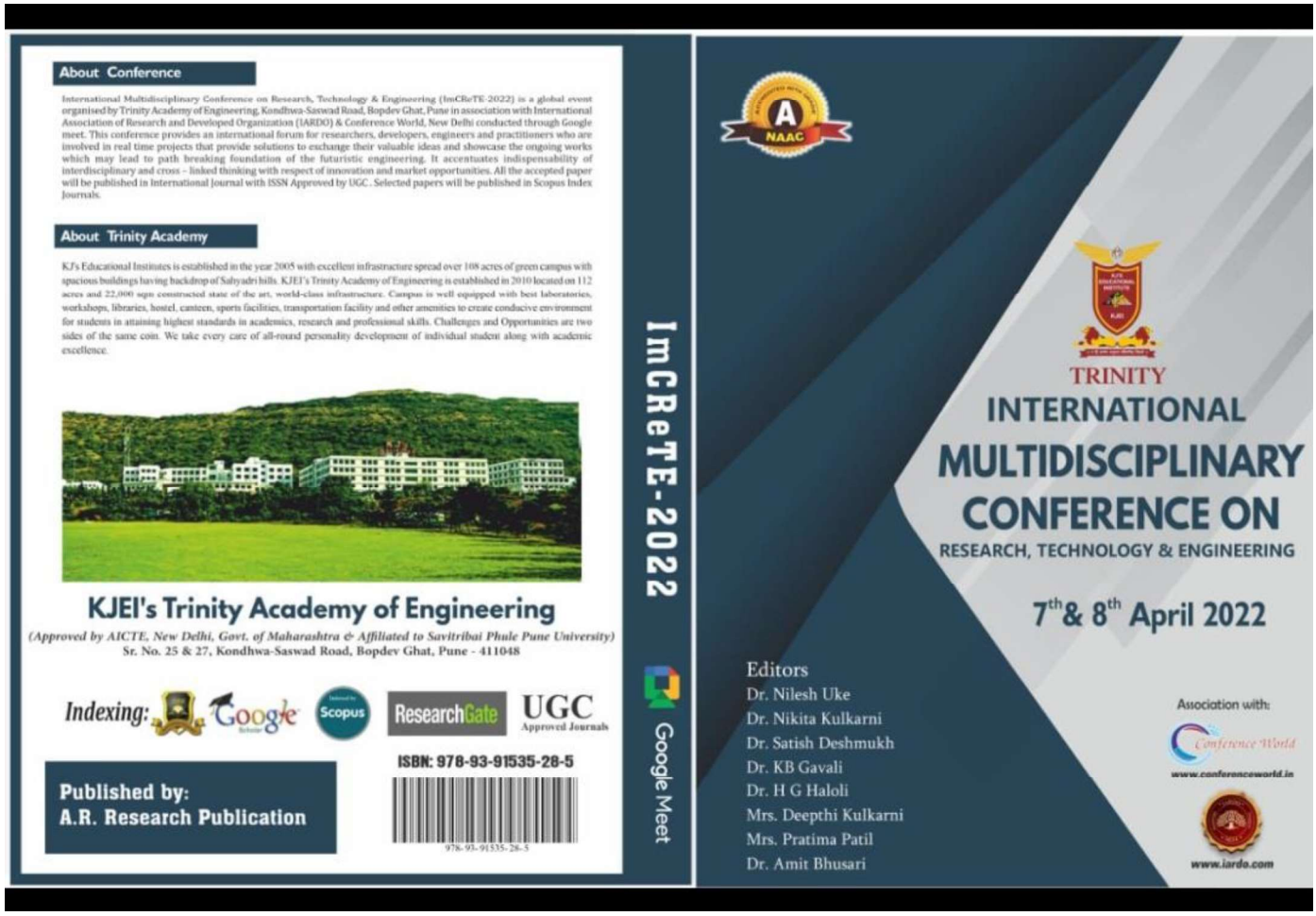
Dr. Manish Rao - Cover Page of Souvenir



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QSAR Studies on the Melting Point, Partition Coefficient and Aqueous Solubility.

Dr.Madhu Gupta[1], Bhakti Kumari[2], Dr.Manish Rao Ambedkar[3]
Department of Chemistry, M.M.H. College, Ghaziabad, Uttar Pradesh, India[1,2,3],
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ABSTRACT:
As we know that melting point has numerous applications in biochemical and environmental sciences due to its relationship with solubility. Sufficient aqueous solubility is essential for a compound to be transferred to the site of action within an organism. In the present research work QSPR models of 29 compounds were developed using QSPR multiple linear regression (MLR). The square of correlation coefficient(R^2) for best model with penta molecular descriptors is ***0.9311****. All value's of best penta perametric model are* ***N=29 , SE = (21.0089), R = (0.9649) , R^2 = (0.9311) , R^2A = (0.8162), F RATIO = (8.1029), Q = (0.0459).****The results obtained offers excellent regression models that possesses good prediction ability.*

Introduction

Melting point is a basic physical property that specifies the transition temperature between solid and liquid phases. Melting point has numerous applications in biochemical and environmental sciences due to its relationship with solubility. Sufficient aqueous solubility is essential for a compound to be transferred to the site of action within an organism. In spite of the huge number of available melting point data, few useful guidelines exist for understanding the relationship between the compound melting point and its chemical structure.

Predicting Melting Points Predicting crystal structures and their physicochemical properties is an important research area. Predicting melting points is one small region of this research area. Melting points are an attractive property as the well established General Solubility Equation (GSE, Equation) 1,2,4 links the melting point to solubility with reference to a thermodynamic cycle via a pure melt: this empirically derived relationship has seen wide usage 3, 4, 5. The GSE has been proposed as a way to accurately predict solubility using only two pieces of empirical data; the MP is the melting point, the second logP. Log P can be reasonably predicted by atom or group 30 For this reason a good prediction of a crystal's melting point could in principle provide a direct useful prediction of a molecule's solubility.

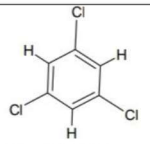
The General Solubility Equation:

$\log 10S = 0.08 - \log 10P - 0.01 \times (MP - 25)$

$\log 10S = 0.05 - \log 10P - 0.01 \times (MP - 25)$

Therefore, methods for estimating the melting point of organic compounds would considerably help medicinal chemists in designing new drugs within a specified range of melting point and solubility. A highly effective tool depending on quantitative structure–property relationship (QSPR) can be utilized to predict melting point for drug-like compounds with no literature values.

Table 1: Structure

Sn.	Structure	M.P
1	 1,3,5-trichlorobenzene	63.5

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