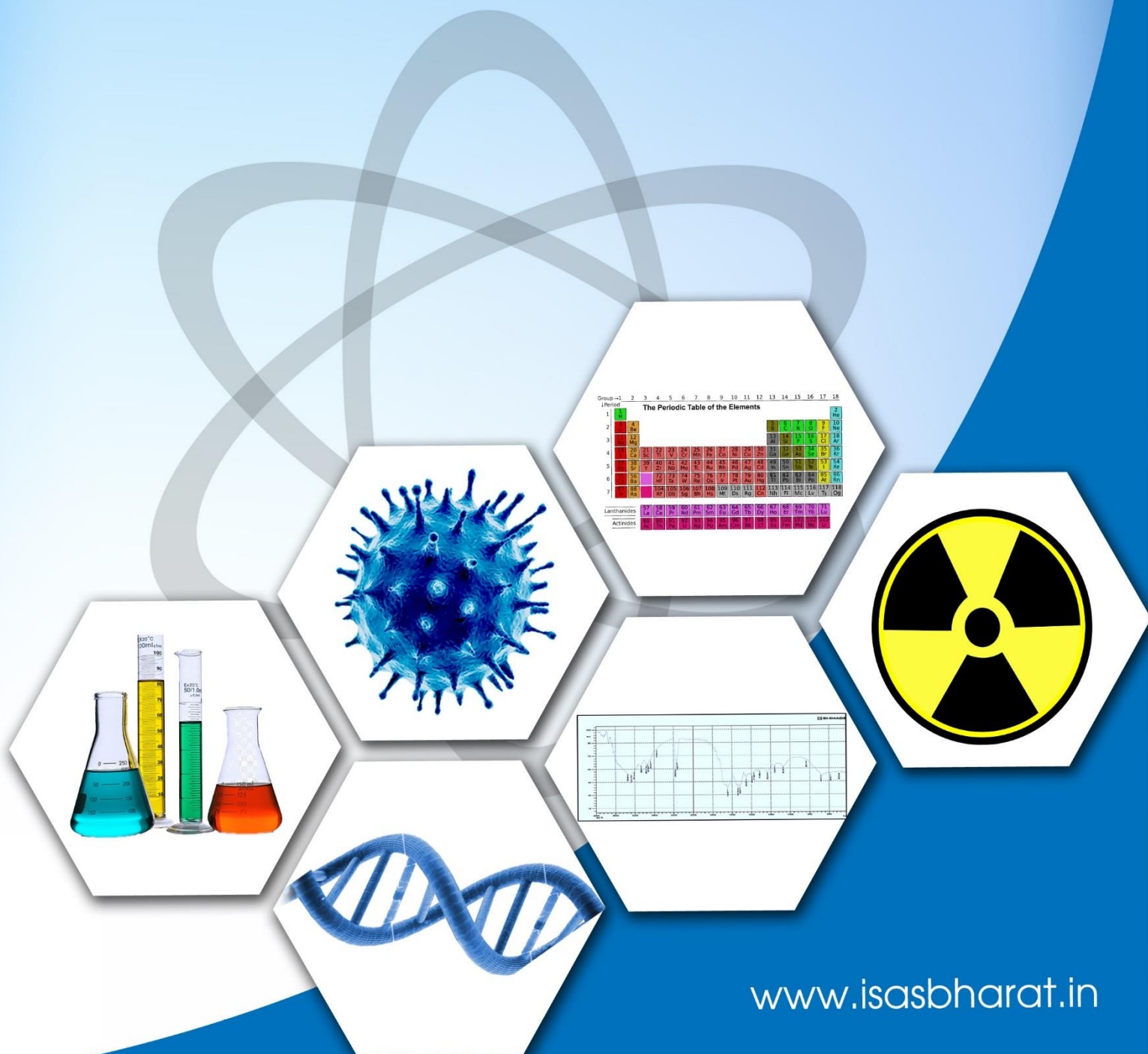




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# Journal of ISAS

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Indian Society of Analytical Scientists





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- The Manuscript should be typed in **MS word** (times new roman) with **1.5 spacings** and **font size 12**
- The **title** of the paper should be clear and concise(**font size 14 and bold**), the first letter of each noun and adjective in the title must be in capital letter. It will be followed by names of authors(initials followed by surname) with their affiliation (**font size 12**)
- Corresponding author should be indicated by \* with email ID
- The text should be divided into following sections:
  - **Abstract : up to 300 words**
  - **Key words: 5-6**
  - **Introduction**
  - **Experimental**
  - **Results and Discussion**
  - **Conclusions**
  - **Acknowledgement**
- Figures and Tables should be before references with a caption **Figures:** Followed by **Tables:**
- **References**
  - Divisions within the section should be indicated as subheadings
  - The figures and tables should be numbered with Roman numerals and must be mentioned in the text at appropriate places
  - Standard abbreviations for technical terms and journals should be used
  - All constants should be expressed in **SI units**
  - References should be numbered consecutively and should appear in the text as superscript at appropriate places.
  - References should be in following pattern
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Authors' initials and surname, Journal abbreviation, Volume, Page, Year.
    - For book:**  
Authors' initials and surname, Book name, Publisher, Place, Year.
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Indian Society of Analytical Scientists

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### **Message from President ISAS**

My heart swells with pride to note that Journal of ISAS (J. ISAS) is going to complete two years of its quarterly e - publication on July 30, 2024.

Pivotal objective of Indian Society of Analytical Scientists (ISAS) was dissemination of science and new researches in the field right from its inception since four decades back in 1983 from the grassroots level, publication being one of the major component of the integrated approach.

The efforts made of bringing out a journal of ISAS during the time (with several limitations) restricted the publication to be sporadic in nature, constrained mostly to the extent of newsletters with a fewer research articles. The constraints took their toll to the extent that intent of publication of a scientific journal slowly crept to subconscious but never dead. The dormant idea started re throbbing, on meeting several ignited minds with equal frequency and the idea crystallised on 30th July, 2022 with e- publication of first issue of peer reviewed quarterly journal J. ISAS free of any charge on either side researcher or reader. The journey began with acquisition of ISSN and DoI (worldwide recognition for individual research paper) numbers for the journal. The journal is open access and accepts diverse array of cutting edge peer reviewed research articles in analytical sciences and allied fields employing state of art techniques for quantification and characterisation.

Today at the verge of celebration of two years of the inspiring journey we must congratulate the stellar performance of perseverance, resilience and sheer determination of the entire group responsible specially in particular Editor in Chief Dr Nilima Rajurkar. The continuing journey is endless. I sincerely wish the journal an endless, successful journey of bringing out newer of researches of immense utility to mankind marking deep impression on scientific community.

Dr.Raghaw Saran  
President ISAS and  
Advisor J.I SAS



Indian Society of Analytical Scientists.

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### **Editorial**

Dear Readers,

We are delighted to present the ninth issue of the Journal of Indian Society of Analytical Scientists (J. ISAS) as we celebrate the second anniversary of our publication. Over the past two years, our journey has been one of growth, innovation, and a steadfast commitment to advancing the field of analytical science. As a peer-reviewed quarterly e-journal with ISSN and DOI numbers, J. ISAS has consistently aimed to provide a platform for high-quality research that drives scientific progress and addresses contemporary challenges.

In this special anniversary issue, we are proud to feature a diverse array of manuscripts that exemplify the breadth and depth of analytical science. It presents a diverse array of innovative research and case studies, each contributing to advancements in forensic science, environmental sustainability, water treatment, pollution control, and the integration of traditional medicine with modern science. The meticulous identification of Delorazepam in suspected Methaqualone contraband highlights the critical role of analytical precision in forensic investigations. The elemental analysis of discarded printed circuit boards reveals efficient methods for silver recovery, emphasizing the environmental and economic benefits of recycling electronic waste. The SWASTIHK technology for water disinfection, combining fennel oil and hydrodynamic cavitation, addresses global clean water challenges with promising results. The exploration of mesoporous biochar from cotton crop residues demonstrates a sustainable approach to environmental remediation by efficiently adsorbing p-nitrophenol. Lastly, a review on the synthesis and characterization of Ayurvedic Bhasmas bridges ancient practices with contemporary science, offering a comprehensive understanding and potential validation of these traditional medicines. Together, these studies underscore the importance of innovative techniques and interdisciplinary approaches in addressing pressing global issues.

This milestone is a testament to the collective efforts of our dedicated editorial board and advisory board, the rigorous contributions of our authors, and the invaluable insights of our reviewers. We extend our heartfelt gratitude to each one of you for your unwavering support and engagement. I would like to extend my sincere gratitude to Dr. Raghav Saran, National President of ISAS and Advisor to J. ISAS, for his invaluable suggestions and support. My Special thanks to the Editors: Dr. Vijayalaxmi Adya and Dr. Vinay Bhandari for their cooperation. The technical assistance provided by Shivani Katak and Vaibhav Parse is greatly appreciated.

The continued support and active participation of our readers, authors, and reviewers are crucial in sustaining the high standards of J.ISAS. We look forward to many more years of fostering scientific excellence and contributing to the global body of knowledge in analytical science. Thank you for being a part of our journey.

Sincerely,



Dr. Nilima Rajurkar  
Editor in Chief  
J.ISAS



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