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Souvenir

International Conference on

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5th International Conference
on
Applied Science,
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Science
(ASELS-2025)

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About ISR

International Society for Research (ISR) is a non-profit organization for promoting research and development around the world. ISR is the bridge between the quality publisher and researchers. It provides the platform to researchers and academicians for publication in the Scopus Indexed Journals, SCI Journals, Web of Science Journals, UGC Approved Journals, NAAS Rated Journals, Google Scholar Indexed Journals and other good quality DOI journals.

ISR is also a partner organization for publication in conference proceedings. We organize the International conferences for publication in SCOPUS indexed and other refereed journals as per the requirement of the authors of the manuscripts. The manuscripts submitted to ISR should be plagiarism free and well coherent in all sense. The scope of publication with the ISR covers all type of review and research manuscripts including the Exploratory & Explanatory Research, Descriptive & Theoretical Research, Applied Research & Action Research, Cross-Sectional Research, Quantitative & Qualitative Research in the field of engineering & technology, agriculture & environmental, Social science & Humanities, Literature & Education development, Medical & Health Science.

The vision of ISR :

ISR endeavors to promote global excellence in the field of research & development through diligent applications of advanced technology for the holistic development of society. Also, ISR is committed to motivate and persuade the researchers to take up the projects for the continuous development of human society and make this world a better place to live in. The ISR has a steadfast commitment be the fulcrum of the ocean of knowledge around which efforts of researchers move about.

About Conference

5th International Conference on Applied Science, Environment and Life Science

(ASELS-2025)

During the worldwide lockdown due to COVID 19 pandemic, a lot of important activities have come to a halt. However, when we look at the brighter side, all of us have more time for adding to our knowledge and insights.

With this aim, to keep contributing to learning and motivation ISRis going to organize a two-day International Conference with the title "**5th International Conference on Applied Science, Environment and Life Science (ASELS-2025)**" on Aug 02-03, 2025.

We hope, this online mode of the conference in COVID-19 pandemic will be an appreciable step in promoting the research activities and new information between researchers, developers, students, academicians and practitioners working in and around the world by keeping the social distance in view to stop the spread of COVID-19 disease. This conference aims is to present the current researches being carried out in the field of social science and education development around the globe.

Prospective authors from academia as well as industry are invited to submit their abstracts that illustrate original/unpublished works and industrial applications describing advances and significant innovations in the field.

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- **Assoc. Prof Dr. Mehmet Karakaş**, General biology and zoology, Physiology, Ankara University, Turkey

Message

I am extremely pleased to share that **International Society for Research (ISR)** (ISR) is organizing a two days “**5th International Conference on Applied Science, Environment and Life Science (ASELS-2025)**” on Aug 02-03, 2025.

I am sure the state of art lectures from the invited experts and the research findings of researchers, academicians, utility engineers will enrich the knowledge of all the participants. It will provide an excellent opportunity for students to learn new ideas.

I offer my best wishes to the whole team of the organizing committee, the participants, and volunteers for the grand success of the conference.

Dr. Kiran Gupta
Co-Convenor ASELS-2025

Message

I am happy to know that ISR(ISR) is organizing a two days "**5th International Conference on Applied Science, Environment and Life Science (ASELS-2025)**" on Aug 02-03, 2025. I am sure that, this conference would provide an ideal platform for the academicians, scholars and experts to present and exchange their research findings and Ideas.

I wish the conference a great success.

Praveen Kumar Rajpurohit
Fonterra Future Dairy Private
Limited, Mumbai, India

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Kinetic, Isothermal And Thermodynamic Study Of Surface Modified Carbon Adsorbent For The Removal Of Orange G Dye From Aqueous Medium

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Kinetic, Isothermal And Thermodynamic Study Of Surface Modified Carbon Adsorbent For The Removal Of Orange G Dye From Aqueous Medium

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Abstract— The aim of the study was to develop economical, highly effective and easy approachable adsorbent for removal of Orange G dye from aqueous solution. For this purpose, the adsorption efficiency of surface modified carbon adsorbent prepared from *Parthenium hysterophorous* plant was evaluated. The surface modified adsorbent was prepared by treating the carbonized samples of the selected plant with Phosphoric acid and Potassium Hydroxide to get the optimized adsorbent. The prepared adsorbent was characterized by Fourier Transform Infra Red spectroscopy (FT-IR), Scanning electron microscopy (SEM) and Energy dispersive X-Rays (EDX) for determination of functional group presence, surface structure and elemental analysis of the adsorbent respectively. Orange G solution was prepared as target adsorbate to determine the adsorption characteristics of the prepared adsorbent. Different conditions like effect of initial concentration, pH, contact time, adsorbent dose and temperature were examined in adsorption process. In the current study, the adsorption equilibrium data was described by kinetic models like pseudo first order, pseudo second order and intra particle diffusion and isothermal models like Langmuir, Freundlich, Temkin and Dubinin- Radushkevich isotherms. Thermodynamic parameters like Gibbs free energy, change in enthalpy and change in entropy were also evaluated. The results show that the adsorption was spontaneous, exothermic with decrease in entropy (Kaur, Kumari, & Sharma, 2020; Nazir et al., 2020; Rehman et al., 2023; Wafaa et al., 2023; Wu et al., 2019).

Keywords— *Adsorption, Dye, Kinetic, Isothermal, Thermodynamic study*

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