

Proceedings of the 1st International Conference on Frontiers in Physical and Chemical Sciences: Exploring New Horizons

13-14 November 2024, Bengaluru, Karnataka, India

FPCS 2024

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Preface

We are delighted to present the proceedings of the first International Conference on **Frontiers in Physical and Chemical Sciences: Exploring New Horizons** (FPCS-2024). The FPCS-2024 was organized by the Department of Physics and Chemistry, Acharya Institute of Graduate Studies (AIGS), Affiliated to Bengaluru City University, Soladevanahalli, Bengaluru-560107, Karnataka, INDIA held on 13th & 14th November 2024 in offline mode. The proceedings of FPCS 2024 consisted of 22 research papers.

The FPCS-2024 aims to provide an opportunity for students, researchers, academicians and industrialists to present and share their latest research work in physical and chemical sciences.

The Chief Guest who commenced the FPCS-2024 with keynote talk was Prof. Dr. C. V. Yelamaggad, Scientist-F (CeNS) and AcSIR National Professor, Centre for Nano and Soft Matter Sciences (CeNS), Autonomous Research Institute, Bengaluru, Karnataka, INDIA.

The conference spanned a broad area of research in the field of physical and chemical sciences. The technical program of FPCS 2024 is attended by about 80 presenters. The technical sessions of FPCS-2024 conference were: Session 1 - Introduction to X-Ray Diffraction and its Applications in Materials Science; Session 2 - Effort Towards Designing Affordable and Functional Smart Windows; Session 3 - Material Science and Engineering to Modify Physicochemical Properties Of Pharmaceutical Solids; Session 4 - Semiconducting Nanostructures for Sensor and Catalytic Dye Degradation Applications; Session 5 - Innovative Horizons: Low-Dimensional Materials for High-Performance Batteries and Supercapacitors; Session 6 - Development of Highly Efficient Single and Nano Crystals for Optical and Solar Cell Device Applications; Session 7 - Quantum computational, molecular docking, and spectroscopy investigation on some organic compounds and Session 8 - Advanced Energy Systems.

On this chance, the FPCS-2024 organizers would like to give big appreciation to chief guest, all invited speakers and participants for impressive share and discussion. We would also like to express our sincere gratitude to reviewers of the FPCS-2024 research papers to be published in these proceedings. We hope that these proceedings will become valuable reference for further research in the field of physical and chemical sciences.

Editors,

Dr. Rajegowda H R

Dr. Sumathi R B

Dr. Krishna Murthy Potla

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