



Editorial

It is indeed a great pleasure and privilege for me to introduce the Chemical Sciences issue of *Mapana-Journal of Sciences* which is dedicated to publishing the research articles pertaining to the field of Chemistry and related areas.

The first article by Kezia Sasitharan reports a brief review on the working of photovoltaic systems and the conditions required to fabricate an ideal solar cell. Some of the advanced systems incorporated in solar cells over the past 20 years have been discussed along with their place in making photovoltaic technology efficient.

Nidhin M and Sakshi R explored the green route for the synthesis of silver nanoparticles and analyzing the efficiency of synthesized silver nanoparticles for antibacterial activity thereby suppressing the growth of bacterial strain *Escheriacoli*. The biosynthesis of Ag nanoparticles was confirmed by different analytical techniques.

The third article accounts for a brief outlook on research and development of β -secretase, a hopeful target for the exploration of Alzheimer's disease. Anil K Agarwal et al. have focused on role of genetic variation in Alzheimer's disease and also on the functions of peptidomimetic and non-peptide BACE1 inhibitors. The consequences of Alzheimer's disease on cognitive impairments have also been discussed.

Nefisath et al. have reported the synthesis and characterization of different biologically important benzoxazinone derivatives. The prepared compounds were characterized by Elemental analysis and NMR spectral studies.

The fifth article by Matilda George explores the comprehensive development of near infrared (NIR) spectroscopic analytical technique for high-throughput applications in the determination of pharmaceutical raw materials and excipients in a pharmaceutical formulation. Advancements in NIR spectrometry as quality and process control tool have also been discussed.

Shashiprabha et al. have reported the synthesis of 8-hydroxyquinoline derivatives from 5-chloromethyl-8-hydroxyquinoline and imidazole. The product was characterized by NMR and mass spectrometry. Among the synthesized ones, few selected compounds were tested for anti-dengue activity.

Therefore, with a hope to rise in the plethora of knowledge, we present the Chemical Sciences issue of *Mapana-Journal of Sciences*. It is my pleasure to recognize and thank all the contributors for their cooperation and support in bringing out this issue. We would like to express our gratitude to the reviewers who have unconditionally extended their efforts in reviewing all the articles received.

The journal is available in both printed and electronic versions. The Journal has wide circulation across all the major research centers and universities across the country. Hoping that the scientific pursuit of *Mapana Journal of Sciences* sees a phenomenal growth with every upcoming issues. We welcome your feedback on these articles.

Issue Editor
Anitha Varghese