

## Shedding Light on Chemistry

The General Assembly of the United Nations proclaimed the year 2015 as the International Year of Light and Light-Based Technologies. Light is connected with humans in several ways. From photosynthesis to health, optics and photonics, light has revolutionized our society.

The advancement of photonics allowed light to be present in almost any device used by us, from an advanced research or medical equipment to simple home-appliances. Light is also revolutionizing many fields of research and technology such as in medicine, communications, computers, etc. Photons are perhaps the tool mostly used by chemists, because they are present both in the preparation of chemicals and materials as well as in their analysis. Some photochemists use the interaction of light and materials to bring new properties to molecules and others use special materials to change properties of photons.

In recognition to this and expecting that light will play an increasing role in future technologies, the *Journal of the Brazilian Chemical Society* prepared this issue to present some examples of novel

developments in this field, hoping to foster high-level discussions related with light induced phenomena.

Among the 21 articles presented in this special issue, the reader can find a wide range of light inspired activities. From luminescent and photochromic glasses and thin films to writing nanostructures on glasses and thin films with femtosecond lasers; from the preparation and testing of new materials for photodynamic therapies to the laser and ionizing radiation effects on hard tissues; from materials enhancing the efficiency of photovoltaic cells to materials to optically measure the temperature at the nanometric scale; from lanthanide containing to carbon-dots containing new luminophors.

This issue for sure highlights the International Year of Light. Even photochemistry without light is touched here!

Enjoy it!

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