Nanomaterials are likely candidates to create breakthroughs in the field of nano-optoelectronics. When the size of a material is reduced to the nanometer range, quantum effects become very pronounced, which cannot be found at macroscopic and microscopic level. The use of nanostructured materials for fabrication of optoelectronic devices, fast communication devices, light emitting diodes, laser diodes, photodetectors, solar cells, nano-sensors, etc. has recently attracted considerable attention of scientific community. Nanostructures in small dimensions can be perfectly integrated into a variety of technological platforms, offering novel physical and chemical properties for the high-performance optoelectronic devices. The exploitation of new nanostructures and their optical and electrical properties is necessary for their emerging practical device applications. However, there are still plenty of issues associated with the use of nanomaterials in a variety of nanodevice applications. The major issues are control over morphology, structural orientation, crystal size, phase, purity and effective doping towards electrically pumped devices.

The main goal of this special issue is to bring together researchers to share their recent results on synthesis and characterization of nanomaterials and their use in nano-optoelectronics. We invite the research to submit letters/short communications, research article and review papers focusing on (but not limited to) the following topics:

- **Synthesis of nanomaterials**: classification of nanomaterials, basic growth mechanisms and methods of synthesis of nanomaterials.
- **Properties of nanomaterials**: optical, electrical, thermal, mechanical, chemical, electrochemical sensing and quantum properties of nanomaterials.
- **Nano-optoelectronic devices**: communication devices, transistors, light emitters, lasers, photodetectors, solar cells, sensors, electromagnetic waves and antennas, etc.
- **Linear/nonlinear devices**: active devices, passive devices and linear/nonlinear devices.

**Manuscript Submission:**

Manuscripts must be prepared according to Journal’s guidelines, available at http://www.aspbs.com/sam. All papers submitted to this issue will be subject to a strict peer review process to ensure high quality articles. Please make sure in the cover letter that the submitted paper
has not been published previously and is not currently submitted for review to any other journal and will not be submitted elsewhere before a decision is made by this journal. Please notify well in advance all accepted manuscripts shall be paid manuscript processing fees 580 Dollars.

KEY TIMETABLE DATES

| Manuscript due: | July 30, 2020 |
| Authors’ notification: | August 31, 2020 |
| Publication date: | September 2020 |

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