



## Silicon Photonics: Functional Enhancement by New Structures and Materials

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### Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to provide an overview and highlights of the most recent theoretical and experimental efforts of applying novel waveguide structures and functional materials on silicon chips toward enhancing or extending the functions of silicon photonic devices, whether passive or active, linear or nonlinear, silicon-based or hybrid material-assisted.

We encourage you to contribute review papers, original research short letters, or long articles on such topics as (1) novel silicon-based waveguide structures such as hybrid plasmonic structure, subwavelength gratings, nano pillars/slots, suspended structures, etc.; (2) silicon photonic devices integrated with CMOS-compatible materials such as SiN and oxides and hybridized with materials such as 2D materials, III-V/II-VI semiconductor compounds, chalcogenides, LiNbO<sub>x</sub>, VO<sub>x</sub>, magneto-optic materials, phase-change materials, etc.; (3) applications of the aforementioned structures and devices, e.g., programmable photonics, mode manipulations, sensors, MIR photonics, integrated nonlinear optics, etc. Submissions on other topics are also welcome if they are relative to the theme of the Special Issue.

