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Surface Waves on Planar Photonic Crystals

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Message from the Guest Editor

Almost forty years since the first published works, surface modes on periodic planar structures are still triggering new and exciting research opportunities. During the last two decades, a renewed broad interest in these dielectric multilayer-sustaining surface modes has occurred, thanks to advancements in the available fabrication technology and the many inspirational analogies with plasmonics and waveguide optics. Bloch Surface Waves now represent a powerful and easy-to-handle concept for a number of different application fields. This Special Issue is expected to provide an extensive overview of the most recent results obtained in Bloch Surface Waves-based optics, wherein surface modes play a key role.

- Theoretical aspects of light confinement and guiding on photonic crystal surfaces
- Design, fabrication and characterization of optical surface waves
- Surface wave-coupled emission effects
- Surface wave-based sensing (label-free, fluorescence, Raman)
- Non-linear, magneto- and electro-optical phenomena involving surface waves
- Bloch surface polaritons
- Platforms and circuits for two-dimensional optics



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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