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Optomagnonic Structures

Novel Architectures for Simultaneous Control of Light and Spin Waves

Editor
Evangelos Almpanis

 World Scientific



- The first book devoted to optomagnonics, a new research field that started to grow in 2016
- Pedagogical and explanatory style suitable for young researchers or scientists who want to enter the field
- Written by pioneering researchers/groups in the field of optomagnonics



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Find out more at <https://doi.org/10.1142/11820>

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Understanding, controlling and, more importantly, enhancing the interaction between light (photons) and spin waves (magnons) can be, among others, a step towards the realization of magnon-mediated microwave-to-optical transducers for quantum computing applications. In this respect, the development of so-called optomagnonic devices, which simultaneously control optical and spin waves and enhance their interaction, is particularly attractive.

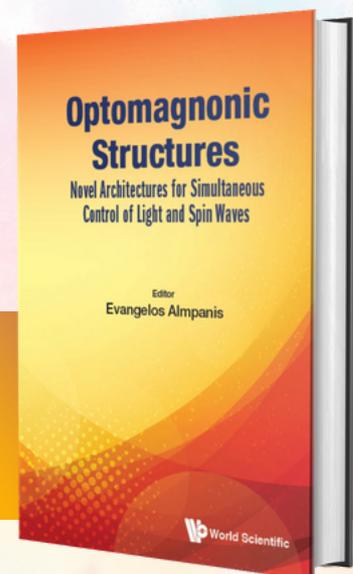
This book constitutes a collective work, comprising 7 chapters from leading researchers in the field of optomagnonics and related areas. Apart from exciting recent developments, it provides the necessary fundamental knowledge in an explanatory manner and, therefore, is accessible to newcomers to the field. Selected parts can also serve as lecture material for advanced courses.

With increasing demand for miniaturized optomagnonic devices, this book will be an important resource to researchers working on optomagnonics, magneto-optics, spintronics, as well as hybrid micro/nano devices for information processing.

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