Joint Annual Meeting of the Swiss and Austrian Physical Society 2023



Contribution ID: 248

Type: Talk

[405] Chiral sensing with void modes

Tuesday 5 September 2023 15:15 (15 minutes)

Chirality is a property of living organisms molecules, chemicals and drugs, which makes their detection and analysis an extremely important task in biology, chemistry, and pharmacology. One of the most well known methods for detecting chiral matter handedness is the measurement of circular dichroism (CD) that can be defined as the difference in the transmission of right- and left-handed circularly polarized light. In this work we present a system supporting bound state in the continuum and radiative void modes for CD enhancement. Different types of modes interaction, including weak coupling, strong coupling and exceptional point regimes are demonstrated, and the efficiency of each for chiral sensing is analyzed.

Theoretical Work

Theory

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Session Classification: Atomic Physics and Quantum Optics

Track Classification: Atomic Physics and Quantum Optics