

Phase space as an optical engineering tool in open microcavity designs

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Optical microcavities have received much attention in the last decade from many different research fields ranging from fundamental aspects (quantum chaos) to specific applications in biosciences (molecular detection). In most cases, it would be desirable to combine high energy densities AND emission directionality in the near/far field. We propose to modify the refractive index of the medium with a careful monitoring of the corresponding phase space to achieve an optimal combination of these characteristics.

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