ABSTRACT

APPARATUS AND METHODS FOR GENERATING SEPARATED SPIN-POLARIZED EXCITON-POLARITON QUASIPARTICLES

Apparatus, systems and methods for generating separated spin-polarized exciton-polariton quasiparticles are disclosed. Apparatus, systems and methods comprise providing a perovskite optical microcavity, incorporating liquid crystal molecules into the perovskite microcavity, and generating one or more polaritons within the microcavity by optically exciting an intersection point corresponding to a point of generation of the polaritons such that the one or more polaritons separate perpendicular to their respective propagation direction.

[Abstract to be published with FIG. 1a]