

OPTOMECHANICAL GYROSCOPE ON PLANAR PLATFORM

ABSTRACT

A sensing component of a gyroscope and an opto-MEMS gyroscope comprising said sensing component are provided, the sensing component comprising, a frame; a proof mass configured to be displaced in response to a Coriolis force applied to the sensing component; and a photonic crystal cavity comprising, a first photonic crystal coupled to the proof mass; and a second photonic crystal coupled to the frame; wherein the first and second photonic crystals each comprises an array of holes formed thereon; wherein the photonic crystal cavity is configured to generate an optical output in response to the Coriolis force, and wherein the sensing component is configured to measure the Coriolis force based on changes in the optical output.

Fig. 9(a)