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Strong indirect coupling of a magnet with a piezoelectric in a microwave cavity

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Abstract
A system consisting of a magnetic material and a piezoelectric material placed within a microwave cavity is considered. The strong and long-range coupling between the piezoelectric material and the magnetic material mediated by the microwave cavity has been studied. We have shown that the realization of the strong coupling regime is not only possible between each of these materials with the microwave cavity, but also between the magnetic material and the piezoelectric material.

Keywords: microwave cavity, magnetic material, piezoelectric material, strong coupling

For full article, refer to the Persian section