

## COERCIVITY ENHANCEMENT OF HEXAFERRITE MAGNETS

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*ABSTRACT : Permanent magnets as a continuous source of magnetic energy are an essential requirement for devices. The quest for low cost and high coercivity magnetic materials free of rare earth metals has been the main driving force for magnetic materials research in recent times. Although hexaferrite powder offers a low cost and high corrosion resistance magnet, it finds limited application in high performance miniaturized devices compared to NdFeB and AlNiCo magnets, because of its low coercivity. We have synthesized La and Co doped hexaferrite powder of particle size <120 nm using a microwave method followed by electroless coating of Co. The optimized powder exhibits more than 35% enhancement in the coercivity compared to the parent compound.*

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