# Magnetic Elastomeric Composites Filled by Lithium Ferrites

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**Abstract.** The magnetic polymer composites with magnetically active filler contents of 0, 100, 200 and 400 phr (i.e., 0, 17, 29 and 45 vol. %) and the acrylonitrile-butadiene rubber as the elastomeric matrix was investigated. Li-ferrite substituted by Zn and Ti prepared by wet combustion method was used as a soft magnetic filler. The effect of magnetic filler concentration on magnetic, microwave absorption and physical-mechanical properties of magnetic polymer composites was examined and evaluated. Relevant parameters of the composites exhibit nearly linear behavior allowing easy control of final properties required for specific application.