

Magneto-dipole coupling in arrays of micron-size rectangular magnetic elements

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Static magnetic properties of arrays of micron-size rectangular magnetic permalloy elements are investigated by means of magneto-optic Kerr-effect magnetometry and magnetic force microscopy. The influence of the size and the spacing between the elements on the magnetization curves of the arrays is studied for different orientations of the applied magnetic field. A sizeable magnetic dipole coupling between the elements is found, affecting strongly the magnetic properties of the arrays.