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Graphene mediated magnetic domain formation IORI TANABE, YI WANG, LINGMEI KONG, CHRISTIAN BINEK, University of Nebraska-Lincoln, FRANK PASQUALE, YUAN CAO, BIN DONG, JEFFRY KELBER, University of North Texas, PETER DOWBEN, University of Nebraska-Lincoln — Both graphene on Co and graphene on Co3O4/Co samples were investigate by the Raman spectroscopy and longitudinal magneto-optic Kerr effect (MOKE). While the graphene on Co (111) bilayer thin films exhibited high remnant magnetization in plane easy axis ferromagnetism, the graphene/Co3O4/Co trilayers exhibited little remnant magnetization. The latter is due to formation of a complex multidomain state at zero applied field. The role of graphene and Co3O4 will be discussed.

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