Thermal analysis of magnetic polymer nanospheres

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The thermal decomposition of PLGA (poly(D,L-lactic-co-glycolic) acid) polymer nanospheres loaded with magnetic fluid and anticancer drug Taxol prepared by the nanoprecipitation method was analyzed by means of thermogravimetry and differential scanning calorimetry. The stepwise mass decrease upon heating was connected with the decomposition of magnetic polymer nanospheres. Compared with the amount of Taxol added, it was shown that most of the Taxol was encapsulated into the PLGA polymer matrix.