Contents

Chapter-1

Introduction

Chapter-2

Synthesis and Characterization of Amino acid capped transition metal ion doped iron oxide nanoparticles

Chapter-3

Amino acid-capped transition metal ion-doped iron oxide nanoparticles: evaluating drug delivery carrier efficiency and in vitro magnetic resonance image contrasting ability

Chapter-4

Synthesis of Fe_3O_4 Nanoparticles Using Different Amino Acid Molecules as Templates, Their Characterization and Applications as Vehicle for Drug Delivery

Chapter-5

Fe_3O_4@L-Arginine and Fe_3O_4@L-Histidine Nanoparticles for One pot Solvent-free Sequential Knoevenagel-Michael Addition Reactions