

1.5.7	Synthesis of amidoalkyl naphthols using $H_4SiW_{12}O_{40}$ as a catalyst	12-13
1.6	Importance of sulfur	13
1.7	Notion of using sulfur nanoparticles	14
1.8	Aim and objective of the present work	14
1.9	Plan for the present work	14-15
2	<u>Chapter 2</u> Experimental section	
2.1	Experimental	16
2.2	Instruments and apparatus	16
2.3	Chemicals and reagents	16
2.4	General method for the synthesis of 1-amidoalkyl-2-naphthols	17
2.5	Synthetic schemes of 1-amidoalkyl-2-naphthols	17
2.6	Work up for the reaction schemes	18
3	<u>Chapter 3</u> Results and Discussion	
3.1	Characterization of the catalyst	19-22
3.2	Table 1: Optimization of reaction conditions	22
3.3	Table 2: Catalyst loading	23
3.4	Table 3: S_8 NP catalyzed synthesis of 1-amidoalkyl-2-naphthols	24
3.5	Selected spectral data of the synthesized 1-amidoalkyl-2-naphthol derivatives	25-26
4	Conclusion and future scope of the present work	27
5	References	28-33
6	Spectra	33-40

ABBREVIATIONS USED

SFRC	Solvent free reaction condition
MCR	Multicomponent reaction
HIV	Human immune virus
UV	Ultra violet
TBAB	Tetrabutylammonium bromide
CPTS	Copper <i>p</i> -toluenesulfonate
ZBS	Zinc benzenesulfonate
NPs	Nanoparticles
NMR	Nuclear magnetic resonance
FTIR	Fourier transform infra-red spectroscopy
MS	Mass spectroscopy
TGA	Thermo gravimetric analysis