

CONTENTS

	Preface	i
1	Introduction	1
2	Experimental Techniques	16
3	Synthesis, spectroscopic characterization, antimicrobial activity, Hirshfeld surface analysis and crystal structure of silver (4-amino-N-(1-phenyl-1H-pyrazol-5-yl) phenyl sulfonamido) dihydrate	43
4	Synthesis, spectroscopic characterization, antimicrobial activity, Hirshfeld surface analysis and crystal structure of Silver (4-amino -N-(6-chloropyridazin-4-yl) phenyl sulfonamido) (pyridine) (1,4dioxane) hemihydrates	73
5	Synthesis, spectroscopic characterization, Hirshfeld surface analysis and crystal structure Silver (4-Amino-N-(2-pyrimidinyl)benzenesulfonamide, pyridine	103
6	Crystallographic investigation, quantum chemical calculations, Hirshfeld surface analysis and molecular docking of 4-Amino-N-(6-methoxy-4-pyrimidinyl) benzenesulfonamide	126
7	Crystallographic investigation, quantum chemical calculations, Hirshfeld surface analysis and molecular docking of 4-Amino-N-(6-methoxy-4-pyrimidinyl) benzenesulfonamide monohydrate	146
8	Crystallographic investigation, quantum chemical calculations, Hirshfeld surface analysis and molecular docking of 2- [4- (Acetyl amino sulphonyl) phenylcarbanoyl] benzoic Acid	171
9	Crystallographic investigation, quantum chemical calculations, Hirshfeld surface analysis and molecular docking of polymorph-III of 4-amino-N-(1, 2-dihydropyridin-2-ylidene) benzenesulfonamide	191
10	Conclusion	211
	References	222
	List of Publications	239