

Table of Contents

1. Introduction	1
1.1. Metals and life	1
1.2 Amino acid metal interactions	4
1.3 Catechols and DOPA	6
1.4 Mussel adhesive proteins	11
1.5. Mussel inspired materials	15
1.6 Photo-removable protection groups	17
1.7 Incorporation of unnatural amino acids into proteins	19
1.8 Terpyridines	23
2. Project aim and motivation	26
3. Overview of Manuscripts:	28
4. Manuscripts	31
5. Summary and Outlook	104
6. Literature	109