Contents:

Summary		2
1. Introduction	3	
2. Syntheses of Purine Derivatives by Cross-coupling Reactions		6
2.1. Development of Basic Methodologies of Cross-coupling Reactions		
of Halopurines	6	
2.2. Regioselectivity of Cross-coupling Reactions of Di- a Trihalopurines		8
2.3. Cross-coupling Reactions of Halopurines with Functionalized		
Organometallics		10
2.4. Syntheses of Covalent Analogues of Base-Pairs	13	
2.5. Syntheses of Purine Derivatives for Applications in Medicinal Chemis	stry,	
Chemical Biology and Bioanalysis		14
2.5.1. Syntheses and Biological Activity of Purine Bases and Nucleosides		14
2.5.2. Syntheses of Purines for Applications in Chemical Biology		
and Bioanalysis		17
3. Conclusions	18	
4. References		18
5. List of papers composing the thesis		21
6. Other papers by the author		23