

Content

1.	Introduction	2
2.	Distribution of Al atoms in the framework of Si-rich zeolites	5
2.1.	History of the problem and strategy for its solution	5
2.2.	Definition of the distribution of framework Al atoms	8
2.3.	Analysis of the distribution of Al atoms and siting of Al pairs in the framework	10
2.4.	Distribution of Al atoms and siting of Al pairs in zeolites	12
2.5.	Control of the distribution of Al atoms in the framework by the zeolite synthesis	15
2.6.	Relationship of the distribution of Al atoms and the properties of zeolites	17
2.7.	Distribution of Al atoms and catalytic activity of zeolites	21
3.	Siting of Al atoms in the framework of Si-rich zeolites	24
3.1.	Outline of the problem and strategy for its solution	24
3.2.	Definition of the siting of Al atoms in the framework	27
3.3.	Analysis of the siting of Al atoms in the framework	27
3.4.	Siting of Al atoms in the framework T sites	28
3.5.	Siting of Al atoms and catalytic activity of zeolites	31
4.	Conclusions	32
5.	References	33
	Appendix A – List of thesis publications	38
	Appendix B – – List of publications not relevant for Thesis	42