

Table of Contents

Abstract	I
Kurzfassung	III
Acknowledgements	VII
Table of Contents	IX
1. Introduction	1
1.1. General setting of the Atacama Desert	3
1.2. Cenozoic climate history of the Atacama Desert	13
1.3. Framework and objectives	15
2. Case studies	17
2.1. A 68 ka paleoclimate record from the hyperarid core of the Atacama Desert	21
2.2. Climatic fluctuations of the hyperarid core of the Atacama Desert during the past 215 ka	55
2.3. Pliocene to Pleistocene climate history of the hyperarid Atacama Desert in northern Chile based on a 52-m sediment core from the Coastal Cordillera ..	77
3. Synthesis	121
3.1. Clay pans as paleoclimate archive: proxy discussion	121
3.2. Local and regional precipitation pattern since the Pliocene – tectonic and/or orbital forcing	135
3.3. Overall conclusions	140
3.4. Outlook	141
4. References	143
Appendix A	XI
Appendix B	XXI
Appendix C	XLI
Erklärung	LIII