

CONTENTS

I. Introduction	7
<i>Martin Bílek</i>	
II. Methodology of Natural Science/Chemistry Recognition in General Education	9
<i>Martin Bílek, Karel Myška, Jiří Škoda and Pavel Doulik</i>	
III. Types of Virtual Environment in Early Science/Chemistry Education	19
3.1 Computer Models and Modelling in Science/Chemistry Education	19
<i>Karel Myška, Karel Kolář and Martin Bílek</i>	
3.2 Chemistry Experiment and Modern Multimedia Technologies	26
<i>Robert Wolski and Piotr Jagodziński</i>	
3.3 Remote and Virtual Laboratories and Remote Sensing	38
<i>Martin Bílek, Milan Turčáni and Petra Skalická</i>	
3.4 Virtual Museums in Science and Technology Education.....	47
<i>Martin Bílek</i>	
IV. Types of Real and Virtual Environment Interaction in Early Science/Chemistry Education	51
4.1 Chemistry Experiment in Educational Films	51
<i>Robert Wolski and Piotr Jagodziński</i>	
4.2 Video-technology and Experiment in Early Science/Chemistry Education .	64
<i>Jiří Rychtera</i>	
4.3 Virtual Environment on Theoretical Introduction and Training of Real Experimentation	68
<i>Iwona Maciejowska and Martin Bílek</i>	
4.4 Augmented Reality and Augmented Virtuality in Early Science/Chemistry Education	77
<i>Vincentas Lamanauskas</i>	
4.5 An Example of Augmented Reality Technology Influence on Results of Learning at Comprehensive Schools.....	94
<i>Margarita Vilkonienė</i>	

V.	The Research on Interaction of Real and Virtual Environment in Early Science Education	107
	5.1 Meta-analysis of Didactic Use of Different Types of Experiment in Science Education	107
	<i>Pavel Doulík, Jiří Škoda and Martin Bílek</i>	
	5.2 Selected Methods of Pedagogical Research in Experimental Applications of Science/Chemistry Education.....	129
	<i>Pavel Doulík, Jiří Škoda and Martin Bílek</i>	
VI.	Perspectives and Challenges of Real and Virtual Environment Interactions in Early Science/Chemistry Education	137
	<i>Martin Bílek, Jiří Škoda and Pavel Doulík</i>	