

# CONTENTS

<b>INTRODUCTION</b> .....	<b>5</b>
<b>1 THE LIFE, TIMES, AND WORK OF ROGER BACON</b> .....	<b>8</b>
1.1 Economical and social transformation of medieval society of Western Europe.....	8
1.2 The life of Roger Bacon in the light of sources .....	21
1.3 The works of Roger Bacon.....	37
<b>2 CHARACTER OF SCIENCE AND ITS METHODOLOGY BEFORE ROGER BACON</b> .....	<b>45</b>
2.1 The birth of deductive logics in ancient Mediterranean .....	45
2.2 The loss of the tradition of deductive logics in medieval Latin Europe .....	57
2.3 The restoration of the tradition of deductive logics in Europe in the form of scholasticism .....	63
<b>3 METHODOLOGY OF ROGER BACON IN THE HISTORY OF SCIENCE</b> .....	<b>67</b>
3.1 Methodology of studying natural science in the works of Roger Bacon.....	67
3.2 Sources and continuity of the methodology of Roger Bacon .....	73
3.3 Refusal of scholastic approach by nascent modern science.....	77
<b>4 THE CONTRIBUTION OF ROGER BACON IN VARIOUS SCIENTIFIC DISCIPLINES</b> .....	<b>84</b>
4.1 Mechanism of vision and optical phenomena.....	84
4.2 Geography and cartography .....	106
4.3 Medicine .....	134
4.4 Chemistry (A problem in the discovery of gunpowder) .....	138
<b>CONCLUSION</b> .....	<b>142</b>
<b>Sources and bliography</b> .....	<b>145</b>
A. Sources .....	145
B. Bibliography .....	149
<b>Summary</b> .....	<b>168</b>
<b>Zusammenfassung</b> .....	<b>169</b>
<b>Resumé</b> .....	<b>170</b>
<b>Glossary</b> .....	<b>170</b>
<b>Register</b> .....	<b>172</b>