

## CONTENTS

<b>CHAPTER 1. INTRODUCTION</b>	<b>1</b>
<b>CHAPTER 2. THE CHROMATOGRAPHIC PROCESSES</b>	<b>4</b>
Partition	4
Diffusion	7
Adsorption	11
Ion exchange	15
Precipitation chromatography	19
Complex ion formation	20
The role of the chromatographic processes in chromatography	22
<b>CHAPTER 3. CHROMATOGRAPHIC TECHNIQUES</b>	<b>33</b>
General	33
Preparation of test solutions	33
Adsorption columns	39
Partition columns	44
Paper chromatography	46
Ion exchange	57
Thin layer chromatography	63
The chromatobox	64
<b>CHAPTER 4. APPLICATIONS OF CHROMATOGRAPHY TO GEOLOGY</b>	<b>66</b>
Natural water sampling and stream analysis-hydrogeochemistry	66
Soil, rock and ore analysis	74
Prospecting for fine gold	96
Analysis of coal ash	98
Identification of metal ions in minerals and mineral identification	100
Analysis of magnesian limestones	131
Copper, gold and silver assays	133
Chromatographic processes in geology	137
Conclusion	140
APPENDIX	141
REFERENCES	149
INDEX	156