

---

# Contents

<b>1</b>	<b>Introduction</b> . . . . .	<b>1</b>
<b>2</b>	<b>The Earth's Magnetic Field from a Geological Perspective</b> . . . . .	<b>11</b>
2.1	The Earth as a Dynamic System . . . . .	11
2.2	The Earth's Magnetic Field Over Time . . . . .	31
<b>3</b>	<b>Magnetism</b> . . . . .	<b>57</b>
3.1	Different Types of Magnetism . . . . .	63
3.2	Rock Type Determines Acquisition Mechanism . . . . .	68
3.3	Size and Time . . . . .	75
3.4	Self-Reversal, Reference Systems and Arrows . . . . .	80
3.5	Magnetic Susceptibility of Rocks and Minerals . . . . .	87
<b>4</b>	<b>Paleomagnetism—Applications</b> . . . . .	<b>93</b>
4.1	Magnetostratigraphy . . . . .	98
4.2	Moving Continents with Stored Earth Magnetic Fields . . . . .	126
<b>5</b>	<b>Rock Magnetism</b> . . . . .	<b>145</b>
5.1	Delineation from Paleomagnetism . . . . .	145
5.2	Applications of Rock Magnetism in the Geosciences . . . . .	156
<b>6</b>	<b>Conclusion and Outlook</b> . . . . .	<b>193</b>