

## CHAPTER OVERVIEW

### 9: Electromagnetic Waves

In this chapter, we explain Maxwell's theory and show how it leads to his prediction of electromagnetic waves. We use his theory to examine what electromagnetic waves are, how they are produced, and how they transport energy and momentum. We conclude by summarizing some of the many practical applications of electromagnetic waves.

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[9.2: Maxwell's Equations and Electromagnetic Waves](#)

[9.3: Plane Electromagnetic Waves](#)

[9.4: Polarization](#)

[9.5: Energy Carried by Electromagnetic Waves](#)

[9.6: Momentum and Radiation Pressure](#)

[9.7: The Electromagnetic Spectrum](#)

[9.A: Electromagnetic Waves \(Answer\)](#)

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[9.S: Electromagnetic Waves \(Summary\)](#)

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