

Curiosity: Seeing What Cannot Be Seen Directly

Curiosity Reading | CheAI Research Inc.

Packet ID: g09_u03_w09

Connection: medical imaging and technology

Reading time: 4 minutes

Atoms are far too small for an ordinary camera photograph. Scientists instead gather effects: scattering, electrical behavior, and spectra. A model connects those observations to an unseen arrangement and earns confidence when it predicts new observations. It is not automatically a literal image. Like a medical scan, an atomic image depends on signals, calibration, and a model that turns data into a representation.

Think like a chemist

1. What observation would make a model worth revising?
2. Why are colors in a model usually not direct evidence?
3. What can a useful-but-limited model still do well?

Word	Meaning	Packet
scattering	change in direction after interaction	4–5, 10–12, 18
nucleus	small dense central region in model	5, 9–12
model	testable simplification	throughout