# The Power of AI in Solid-State Characterization

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# Paradigm for AI Integration


- Current characterization methods are time-consuming.
- Vast material data is often unstructured.
- Optimize formulation development with AI.
- AI integration can accelerate material discovery.

# Digital Infrastructure

01 — Establish a robust digital infrastructure

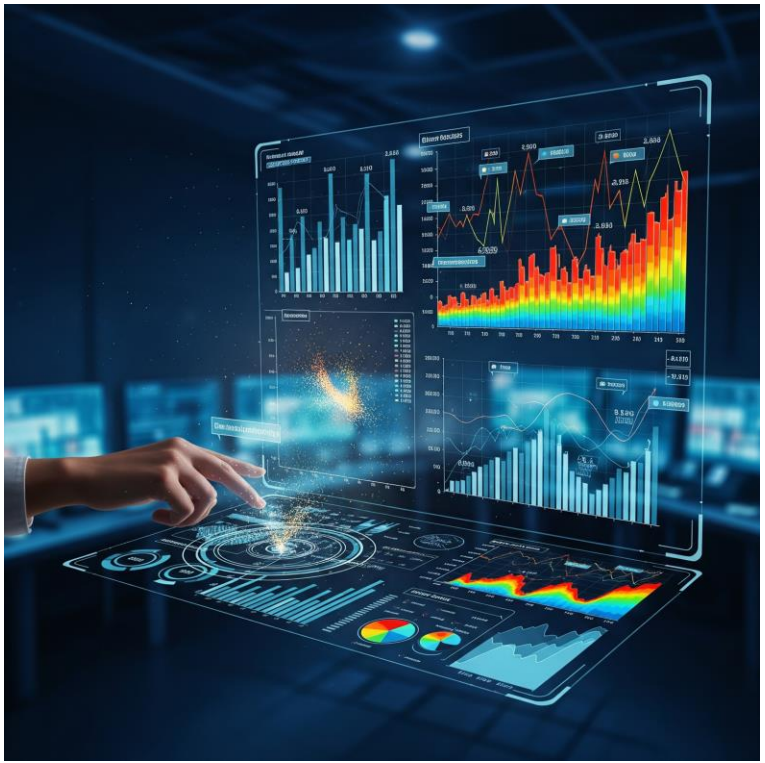
02 — Uniform analytical packages ensure integrity


03 — Standardized measurement protocols are key

04 — Create comprehensive centralized databases

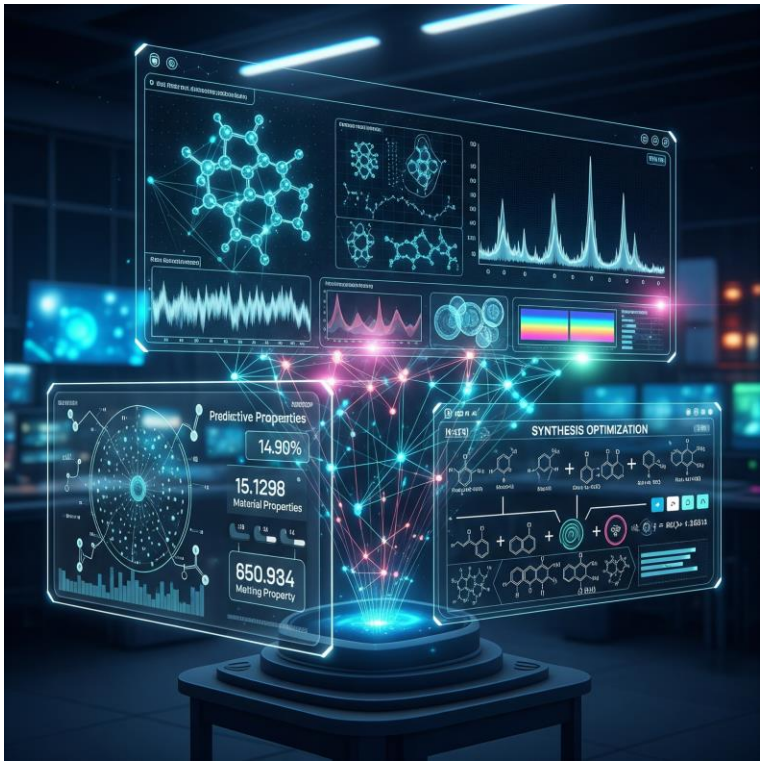
# Human-Centered Visualization

- Emphasizes human-centered data visualization
- Empower experts and customers to explore data
- Transform raw data into clear graphics
- Rapid identification of patterns and trends



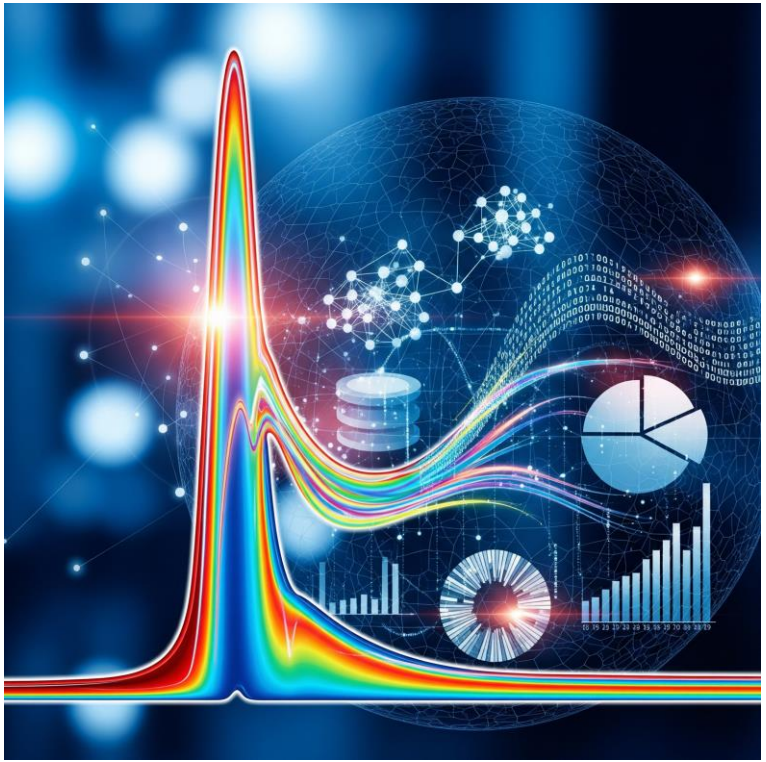
# AI Transformation - Predictive Power

- Apply AI tools to curated and visualized data
- Simulate material behavior using AI models
- Predict properties and optimize synthesis parameters or formulation compositions
- AI reduces physical experiments, saving resources
- AI unlocks innovation in material science



# Predictive & Data-Driven Future

- Framework shifts towards predictive, efficient, and data-driven approach
- Integrates robust digital infrastructure for innovation
- Leverages human-centered data visualization for insights
- Utilizes advanced AI tools to unlock material science innovation



Doing now what patients need next