

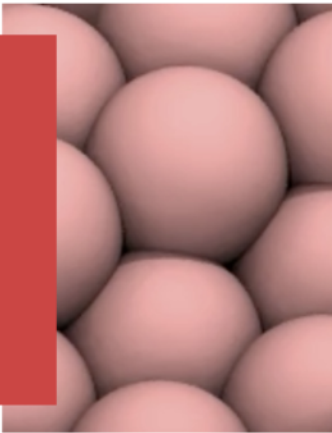
Google DeepMind

RESEARCH

Millions of new materials discovered with deep learning

Meta

Discover climate change solutions with AI




Open Catalyst

AI at Meta and Carnegie Mellon University join forces to find more efficient and scalable ways to store and use renewable energy.

MATLANTIS

Matlantis™ supports companies exploring innovative materials for a sustainable future.


Out of 10^{60} functional molecules that are theoretically possible, mankind has discovered only a handful of useful materials. Powered by an AI technique known as deep learning, Matlantis sheds light on promising candidates in the vast ocean of unknown molecules with its high-speed, versatile atomistic simulation.



Research

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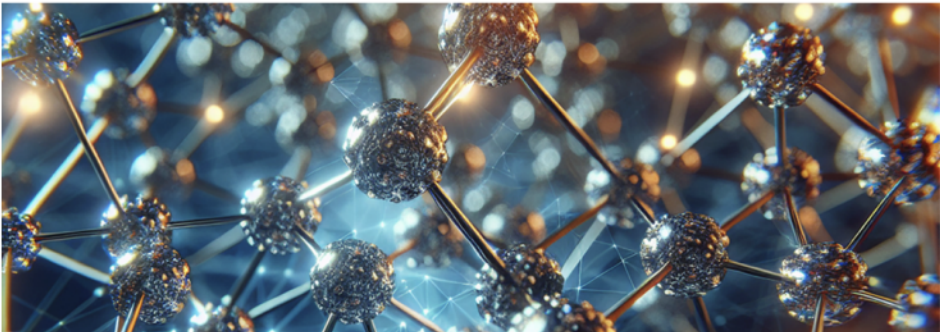


MatterSim: A deep-learning model for materials under real-world conditions

Published May 13, 2024

By [Han Yang](#), Senior Researcher; [Jielan Li](#), Researcher 2; [Hongxia Hao](#), Senior Researcher; [Ziheng Lu](#), Principal Researcher

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Orbital Materials

Introducing ‘Orb’ - the world’s fastest and most accurate AI model for simulating advanced materials

September 3, 2024
Jonathan Godwin

Today we’ve open-sourced ‘Orb’, the state of the art AI model for simulating advanced materials. Built upon our proprietary foundation model (LINUS), Orb outcompetes models from Google and Microsoft on accuracy and speed.

When we started Orbital, our goal was to leverage AI to accelerate the creativity and ingenuity of scientists creating the advanced materials that will power the energy transition. One way to do this is to use computers to peek into the inner functioning of materials - to simulate (“in silico”) at an atomic level what would be impossible to view under a microscope. By understanding the mechanisms that give advanced materials their extraordinary properties, we can use computers to design more performant materials.