



Elixir by Chemia is an integrated platform that accelerates and streamlines the selection, validation, and sourcing of materials for R&D teams, manufacturers, and innovators across diverse sectors and application verticals.

#### Why Elixir?

- All-in-one solution for material intelligence
- Removes barriers for non-experts to access advanced materials
- Reduces supply chain disruption risks by providing alternatives to critical materials from a pool of over 500,000 candidates
- Bridges experimental data, quantum physics simulations, and AI-generated data across various material classes and composites with real-world applications

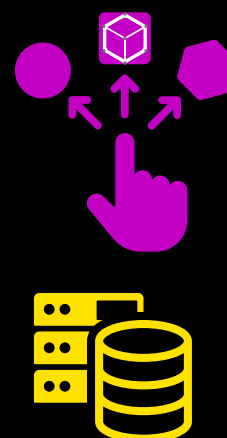
For a product demo, visit:

<https://chemiadiscovery.com/critical-material-alternatives>

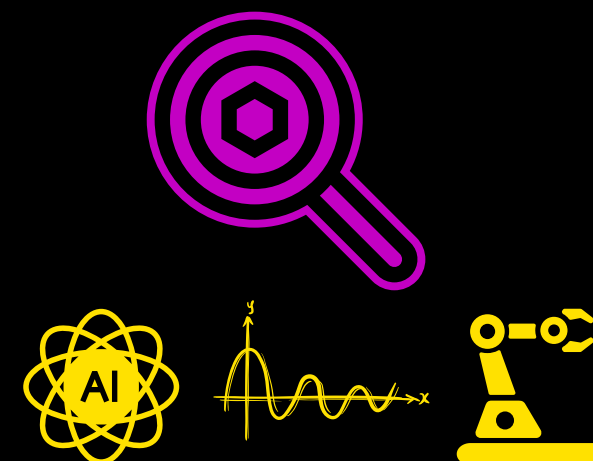
For more information, contact us:

[info@ChemiaDiscovery.com](mailto:info@ChemiaDiscovery.com)

#### Material Selection



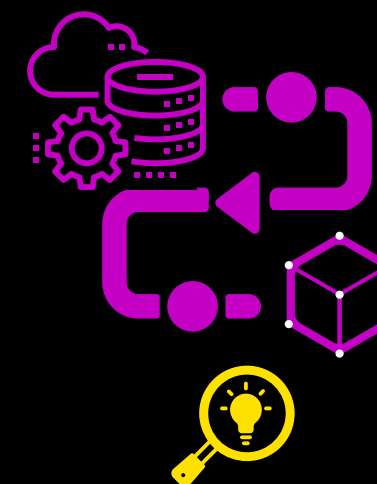
#### Material Discovery



#### Business Intelligence



#### Marketplace



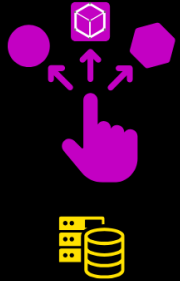
#### Material Discovery Pipeline

#### Material-Driven Technology Trends



# Overview of product features

## Material selection



| Specialized databases   | Sub-categories                                                            |
|-------------------------|---------------------------------------------------------------------------|
| 1- Gas sorbents         | Gas adsorption, selectivity, and stability*.                              |
| 2- Thermal materials    | Heat storage, conduction, conversion, high and low temperature materials. |
| 3- Structural materials | Hard & soft, light & heavy weight materials                               |
| 4- Electronics          | Dielectric constant, magnetization                                        |
| 5- Emergent & deep tech | Tuneable & multifunctional materials                                      |
| Pro database            | Access to +20 metrics                                                     |

## Material discovery



- Repository of pre-trained AI models
  - Physical property predictions
- First principles calculations
  - E.g., Gas adsorption and band gap
- Experimentations
  - Validation of synthesizability and properties
- Material generation
  - Generate new structures or composites

## Business intelligence



- Verify if a particular material or material class is protected with a valid patent.
- Identify the competitive and innovative landscape based on patents and economic data

## Marketplace



- Identify product-ready and manufacturable materials.
- Source cost-stable materials and acquire the most cost-effective options ranging from commercial and cross-industry materials to mining by-products.
- Material manufacturers can identify industry demands in terms of chemicals and form factors.

## Material-Driven Technology Trends



1. Identify the impact of tailwinds and headwinds in technology trends:

- Tailwinds: Export controls & supply chain disruptions → urgent need for alternatives
- Headwinds: Rise of circular & compostable electronics → demand for radically different material profiles

2. Make more informed R&D and strategic decisions with reports built from chains of pre-defined search sequences that connects different parts of our software, Elixir.



## Material Discovery Pipeline

Participate in joint material discovery projects as part of consortiums of companies.

E.g., Next-generation light and hard materials with cross-industry applications.

E.g., Next-gen thermoelectrics