ScienceDirect AI

Getting Started with ScienceDirect AI

Simplify search. *Strengthen* analysis.

Sharpen insights.

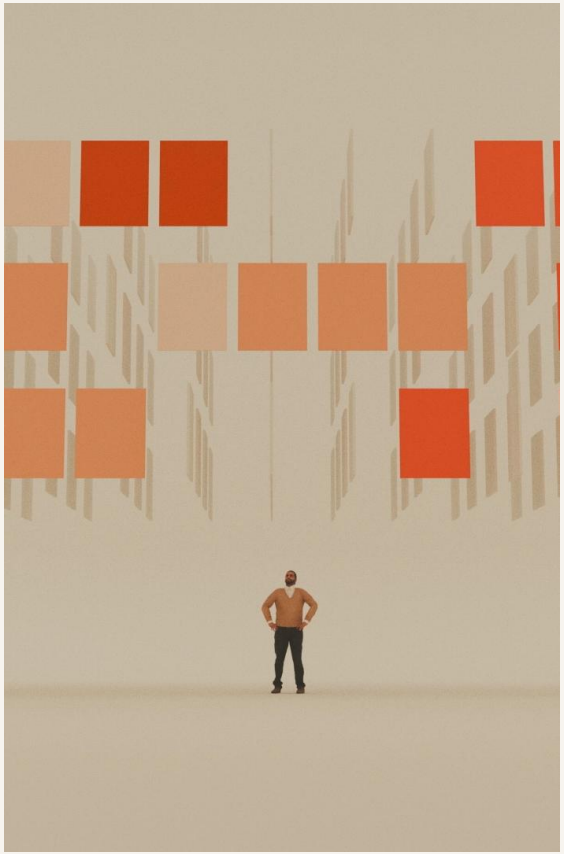
Alison Ferrett

Customer Success Manager

ELSEVIER

What we'll cover today

- ScienceDirect AI overview
- Core features at a glance
- Deep dive:
  - Ask ScienceDirect AI
  - Compare Experiments
  - Reading assistant
  - My Library
- Use cases for researchers
- Resources to get started



What is ScienceDirect AI?

Eureka, *every day* – your smarter research companion

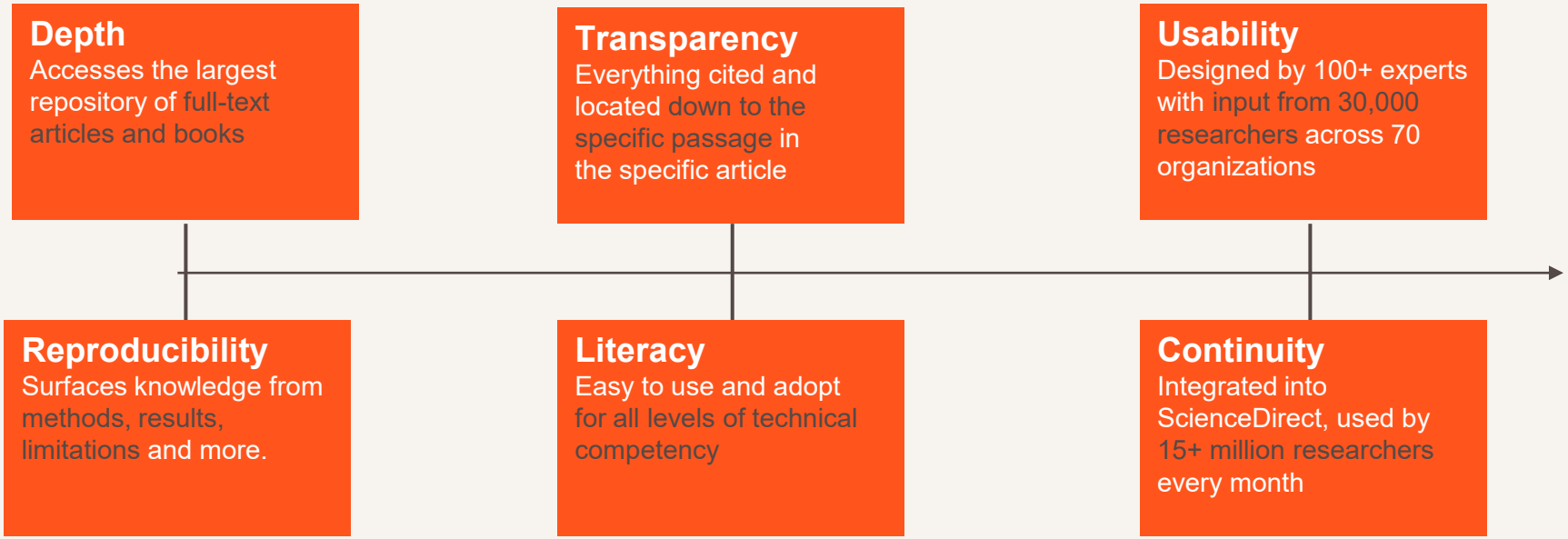
ScienceDirect AI is a new tool that enables researchers to extract, summarize and compare insights from deep within millions of peer-reviewed articles and book chapters. It surfaces critical evidence and ties it back directly to its original source, enabling traceability and reproducibility.

Elsevier's responsible AI principles

- We consider the real-world impact of our solutions on people.
- We take action to prevent the creation or reinforcement of unfair bias.
- We can explain how our solutions work.
- We create accountability through human oversight.
- We respect privacy and champion robust data governance.

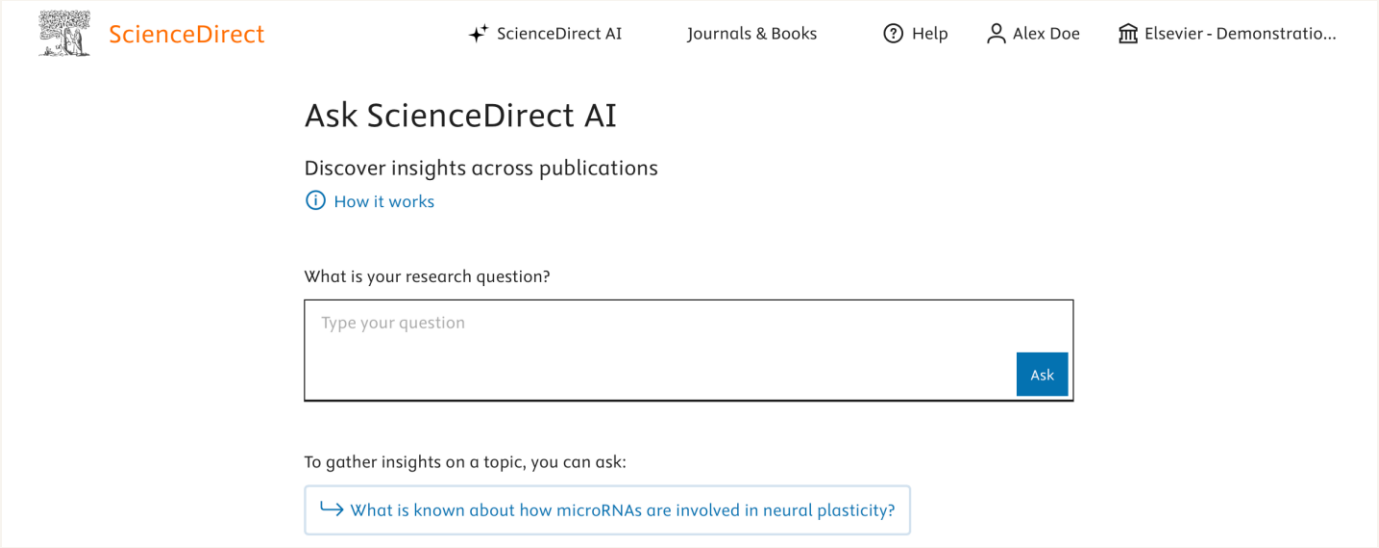
Visit our Responsible AI principles site for more information.

Key benefits

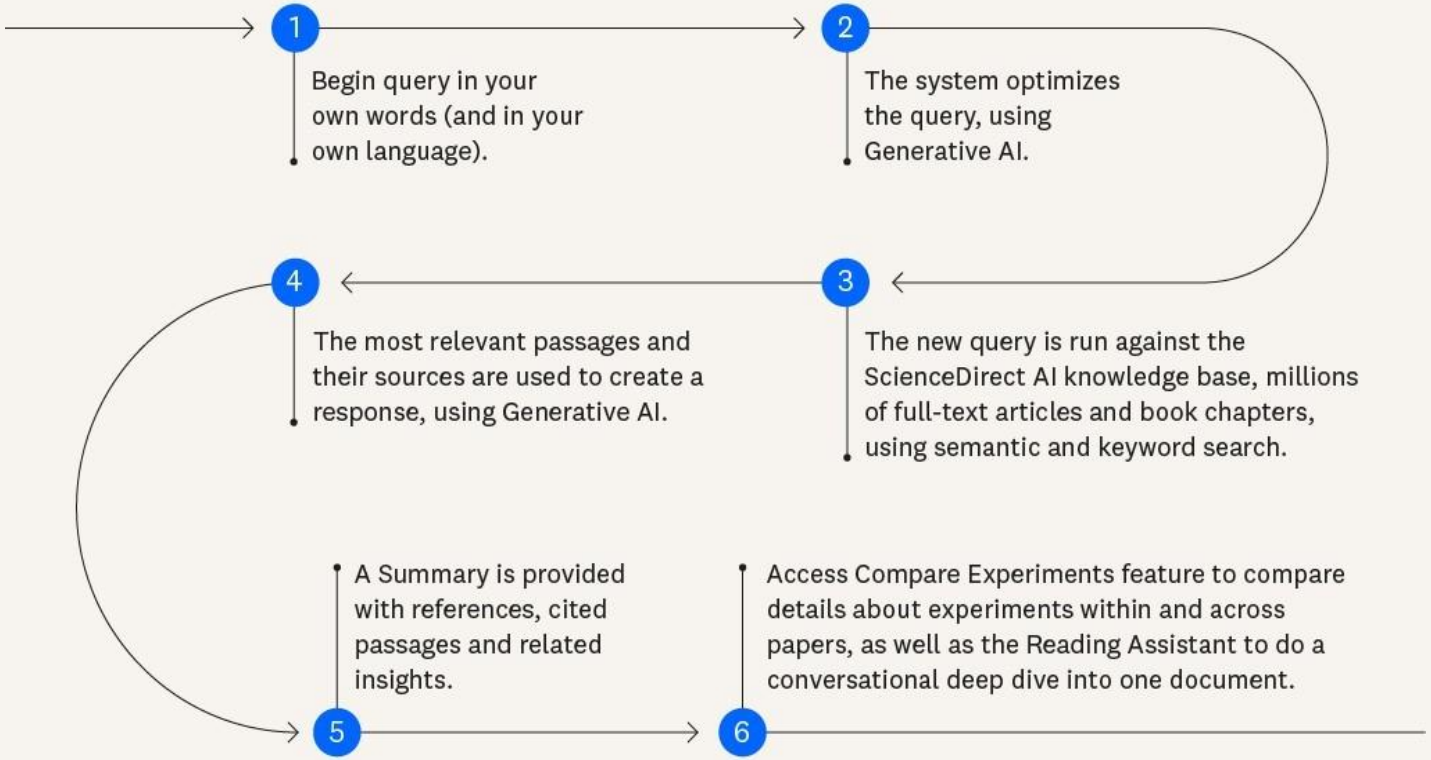


Accessing ScienceDirect AI

Access ScienceDirect AI via the URL, www.sciencedirect.com/ai
or by selecting the ScienceDirect AI symbol in the header,
or by using the floating widget.

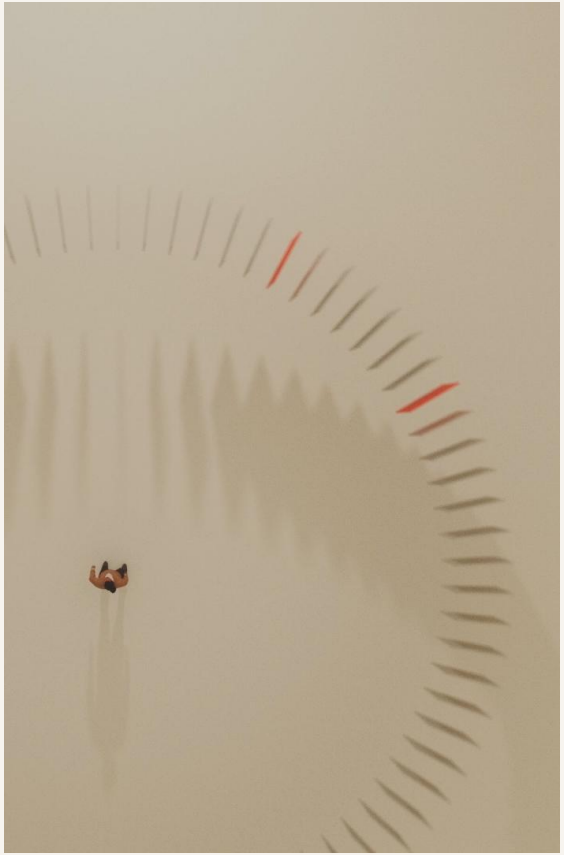


How does it work?



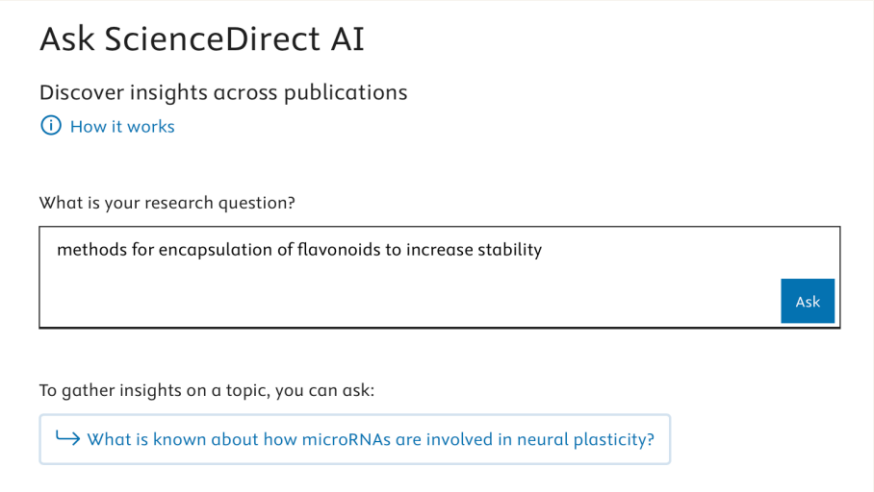
Core features at a glance

- Ask ScienceDirect AI
  - Search and summarize insights from millions of articles and book chapters, using your own words to describe what you need.
- Compare Experiments
  - Extracts and compares key experimental details (goals, methods, results) from multiple studies into structured tables.
- Reading Assistant
  - Chat, ask follow-up questions and summarize sections of an individual article or book chapter.
- My Library
  - Save references directly into your Mendeley Library and access your Mendeley Library in ScienceDirect.



Deep dive: Ask ScienceDirect AI

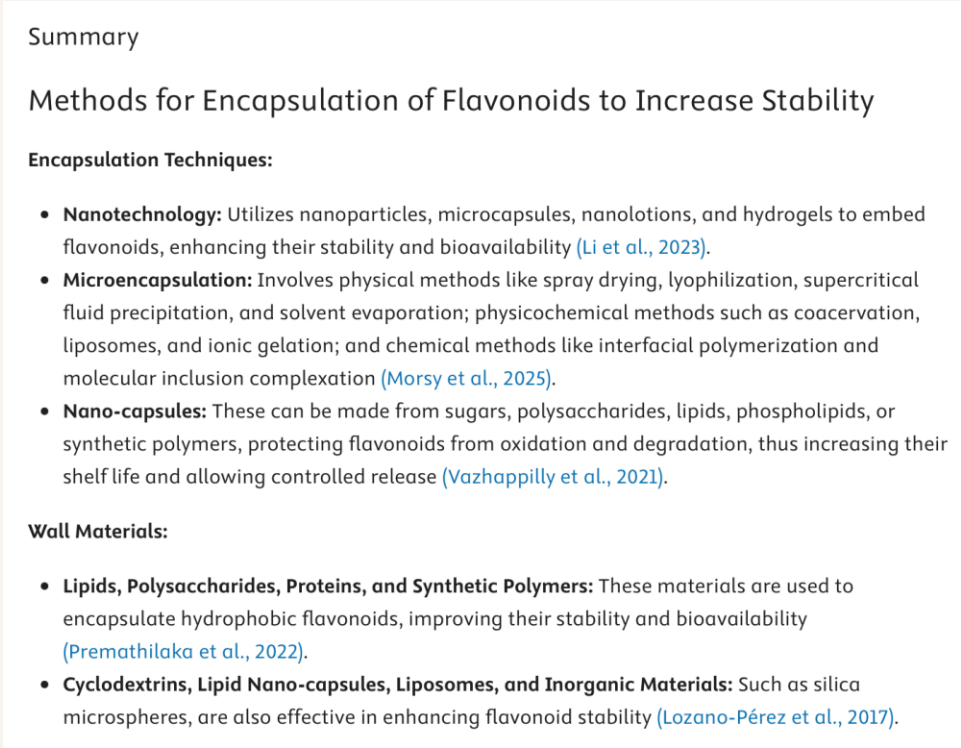
- **Functionality:**
  - Uses natural language queries to provide insights across the underlying corpus of full-text, peer-reviewed scientific papers and book chapters
- **The results:**
  - Summary response provides an overview to your query with references to the articles or chapters used
  - References with a bespoke summary in reference to your query
  - Related insights from other articles, explaining their relevance



Deep dive: Ask ScienceDirect AI

- **Use cases:**
  - Search over millions of full-text, peer-reviewed articles and book chapters
  - Dive deeper into a specific topic or specific research question
  - Read the exact passage in the full-text that the AI assertion comes from

Remember: Every statement includes a citation for further research or reference.



Summary

Methods for Encapsulation of Flavonoids to Increase Stability

Encapsulation Techniques:

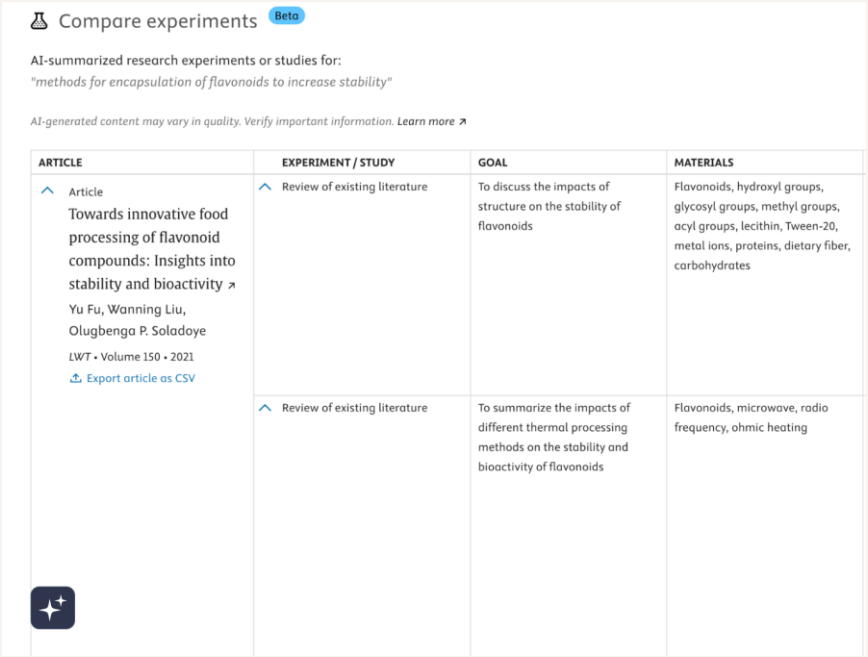
- **Nanotechnology:** Utilizes nanoparticles, microcapsules, nanolotions, and hydrogels to embed flavonoids, enhancing their stability and bioavailability (Li et al., 2023).
- **Microencapsulation:** Involves physical methods like spray drying, lyophilization, supercritical fluid precipitation, and solvent evaporation; physicochemical methods such as coacervation, liposomes, and ionic gelation; and chemical methods like interfacial polymerization and molecular inclusion complexation (Morsy et al., 2025).
- **Nano-capsules:** These can be made from sugars, polysaccharides, lipids, phospholipids, or synthetic polymers, protecting flavonoids from oxidation and degradation, thus increasing their shelf life and allowing controlled release (Vazhappilly et al., 2021).

Wall Materials:

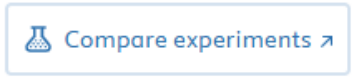
- **Lipids, Polysaccharides, Proteins, and Synthetic Polymers:** These materials are used to encapsulate hydrophobic flavonoids, improving their stability and bioavailability (Premathilaka et al., 2022).
- **Cyclodextrins, Lipid Nano-capsules, Liposomes, and Inorganic Materials:** Such as silica microspheres, are also effective in enhancing flavonoid stability (Lozano-Pérez et al., 2017).

Deep dive: Compare Experiments

- **Functionality:**
  - Extract goals, materials, methods, results, and conclusions from studies in your response or selected articles into a table, experiment by experiment
- **The results:**
  - An easy-to-read table containing all experiments, which can be easily exported into a CSV
  - If there are multiple experiments in an article, all will be included
- **Use case:**
  - Comparative understanding of past experiments
  - Identifying gaps and limitations, inspiring further experiments to be done
  - Less time spent manually compiling and note-taking



Deep dive: Compare Experiments

- **How to compare experiments**
  - From a ScienceDirect AI query:
    - From the Summary page, scroll down and select 

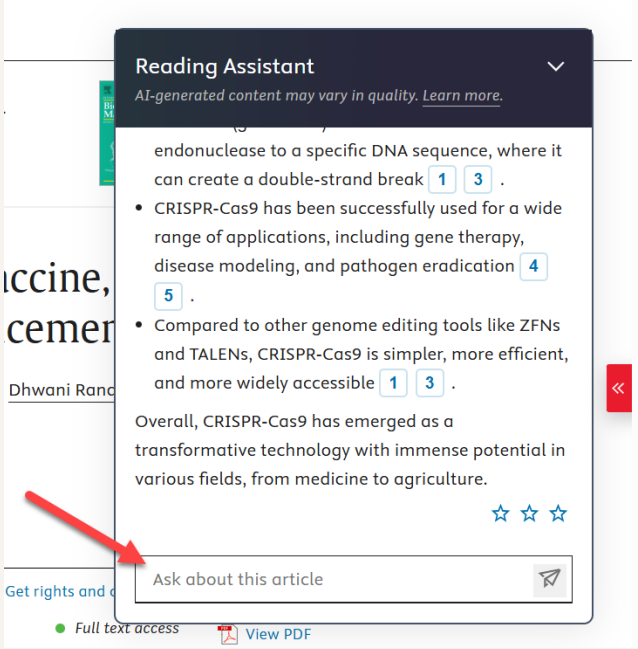
    - The experiments from documents used in the summary response will be included.
  - From a ScienceDirect search results list page:
    - Select the research articles you want to include in the comparison.
    - Click 

 from the top of the article list.

Remember: If there is more than one experiment in the paper or book chapter, each experiment will be included individually. Documents with no experiments will not be included.

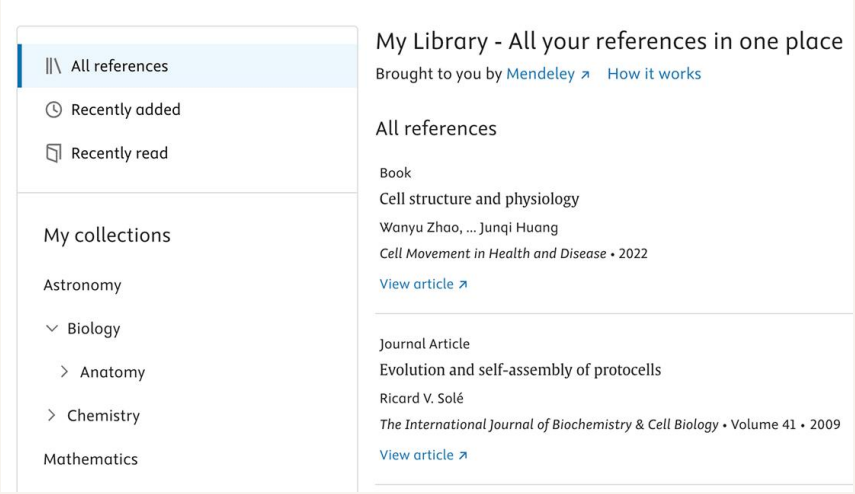
Deep dive: Reading Assistant

- **Functionality:**
  - Built to summarize or analyze individual articles or chapters
  - Embedded in the article/book chapter page on ScienceDirect
- **The results:**
  - Concise AI-generated answers, with references to places in the paper
  - Clicking on a reference highlights the part of the article used to generate response
- **Use cases:**
  - Determine if this article is relevant to the research question
  - Find information from within the article quickly
  - Summarize different sections of the article



Deep dive: My Library

- **Functionality:**
  - Reference space to save and view papers discovered using ScienceDirect AI
  - Any citations saved via My library will also be accessible through Mendeley and vice-versa
  - You can access My Library using the floating AI widget
- **The results:**
  - View all citations in a single place for easier reference management
  - Navigate between finding relevant scientific literature and reviewing your citations seamlessly
- **Use cases:**
  - Saving citations to review later
  - Collecting relevant citations for a literature review
  - Keep track of and organize citations saved over time



Use cases for researchers – from information overload to insights

- **Reviewing literature**
  - Ask complex questions and receive synthesized responses to speed up your literature review process.
  - Get a sense of which papers are likely to contain information helpful to you.
- **Evaluating experiments**
  - Use the Compare Experiments tool to evaluate and compare experiments using one intuitive overview table
- **Identifying relevant content quickly**
  - Use the Reading Assistant to find relevant portions of an article or focus on the data that matters most to you

Resources for more information

ScienceDirect AI is here to elevate your research experience. Start exploring! .

- **Useful links:**
  - ScienceDirect AI Website
  - ScienceDirect AI Video - Transformative Search
  - ScienceDirect AI Video - Compare Experiments
  - ScienceDirect AI video - Reading Assistant
  - ScienceDirect AI – FAQs
  - ScienceDirect AI Quick Reference Guide
  - ScienceDirect AI Libguide
  - ScienceDirect Support Center

Have questions?
Contact your dedicated Customer Success Manager

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Thank you for your time.

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