

Information Skills for Maths 4Y and MSc students

Alessandra Vetrugno
Lead Librarian for Physical and
Applied Sciences



The Radcliffe Science Library (RSL)

- One of the Bodleian Libraries
- The University's main science library
- Legal deposit library for science material
- All scientific subjects covered apart from Clinical Medicine
- <https://www.bodleian.ox.ac.uk/libraries/rsi>

Plan for this session

SOLO (Searching Oxford Libraries
Online)

Where to find useful resources
for your subject

Searching bibliographic
databases

Referencing

SOLO



thermodynamics and statistical mechanics|

✕ Search Everything 🔍

ADVANCED SEARCH

Sort & Filter Results

☐ Include results without full-text access

Sort by Relevance ▾

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PAGE 1

1-10 of 38,436 Results ▾



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1



MULTIPLE VERSIONS

Thermodynamics and statistical mechanics

Seddon, John M.; Gale, Julian D.



3 versions of this record exist. See all versions >

2



BOOK

Thermodynamics and statistical mechanics

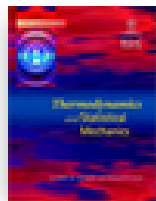


Searching a title on SOLO

- Type the title in the search box.
- Remember to "Search everything".
- Click on a title to see availability information.

Availability in different formats

1



BOOK

Thermodynamics and statistical mechanics

Seddon, John M. | Gale, Julian D.

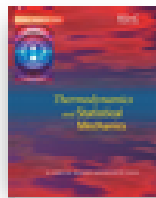
c2002 | New York : Wiley-Interscience | viii, 161 p. : ill. ; 25 cm.

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2



BOOK

Thermodynamics and statistical mechanics

Seddon, John M. | Gale, Julian D.

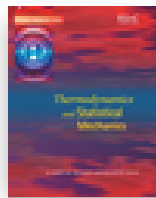
2001 | Cambridge : Royal Society of Chemistry | viii, 161 p. : ill. ; 25cm.

 COURSE

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3



BOOK

Thermodynamics and statistical mechanics

Seddon, John M. | Gale, Julian D.

E-book – Read on-line 24/7 | Royal Society of Chemistry | 1 online resource (viii, 159 pages) : illustrations (some color)

 **Online Access** >



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Previous shelfmark: 02.E00425
Public note: rlchem



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chemistry & industry

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Showing list of versions

☐ SELECT ALL 0 selected 1-2 of 2 Results ⌵ Save query

1



JOURNAL

Chemistry and industry.

Society of Chemical Industry (Great Britain)

1932 | London : Society of Chemical Industry | Print began with v. 10, no. 1 (Jan. 1, 1932).

PEER REVIEWED

● Online Access >



2



JOURNAL

Chemistry and industry

Society of Chemical Industry (Great Britain)

1932 | [Oxford] : Wiley-Blackwell | Print version began with v. 10, no. 1 (Jan. 1, 1932). | v. : ill. ; 30 cm.

● Electronic Legal Deposit Item - currently unavailable due to system outage at British Library. >

Follow this link for advice on possible alternative ways to access the item.



2



JOURNAL

Chemistry & industry.

Society of Chemical Industry (Great Britain)

[1943]- | London : Society of Chemical Industry | Vol. 62 (1943)- | v. ; 27 cm.

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Regular e-resource

- ✓ Access anywhere
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- ✓ Easy printing

E-Legal deposit

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LOCATION ITEMS

Bodleian Offsite Storage

Holdings: 1993-2006:Mar. 2,v.80:no.6(2016) [incomplete]



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v.80:no.6(2016)

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Journals

1993-1996 [incomplete holdings]

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Scan & Deliver



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Journals

1997-1998 [incomplete holdings]

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Subject specific Resources

Where do you go to get
information?



Research Guide for Mathematics: Home

Subjects: [Mathematics](#)

[Home](#)[Books](#)[Journals and Conference Proceedings](#)[Databases](#)[Dissertations](#)[Keeping up-to-date](#)[Training](#)

Purpose of this guide

This guide is intended for students and researchers studying Mathematics at the University of Oxford, although students and researchers from any field may find it useful. Use this guide to find out about books and online resources for Maths, including ebooks, ejournals, bibliographic databases.

Finding books for Mathematics

Oxford has a wide range of ebooks for Mathematics and printed books, including the main science collection in the [Radcliffe Science Library](#). For more detailed info about our book collections visit our [books page](#) of this guide.

- [SOLO](#)

Search SOLO, the University's resource discovery tool, for print and ebooks at Oxford. You can search by author, title or subject and limit to a specific library or only

- [SOLO user guide](#)

If you need help with SOLO, take a look at

Subject Guides

<https://libguides.bodleian.ox.ac.uk/subjects>

Key journals

A lot of journals, as well as being available in print, are available online and can be searched via SOLO or ejournals A-Z. Below

Lead Librarian, Physical and Applied Sciences




Alessandra Vetrugno

[Email Me](#)

Databases A-Z

<https://libguides.bodleian.ox.ac.uk>



Subject and research guides

[Bodleian Libraries](#) / [Oxford LibGuides](#) / [Databases A-Z](#)

Databases A-Z: Engineering

Find the best library databases for your research.

Engineering (40) ▾

All Database Types ▾

All Vendors / Providers ▾

Search for Databases

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40 Databases found for Engineering

Clear Filters/Browse All Databases

A

[American Institute of Aeronautics and Astronautics \(AIAA\) meeting papers](#)
[more...](#)

[ASTM Compass](#)
[more...](#)

B

[British Standards Online](#)
To access this resource off-campus, please visit <https://federation.bsigroup.com/start-session?entityID=https://registry.shibboleth.ox.ac.uk/idp>
[more...](#)

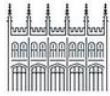
LIVE CHAT (click to open)

Use of Oxford e-resources

Oxford subscribes to a wide range of e-resources, e-journals and e-books to support your research and study. Use of these is governed strictly by licence agreements.

Remember:

- E-resources may be used for study and research but NOT for commercial purposes
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Bodleian Libraries
UNIVERSITY OF OXFORD

FIND JOURNAL BY TITLE, SUBJECT, OR ISSN

BROWSE SUBJECTS

Arts and Humanities

Biological Sciences

Biomedical and Health Sciences

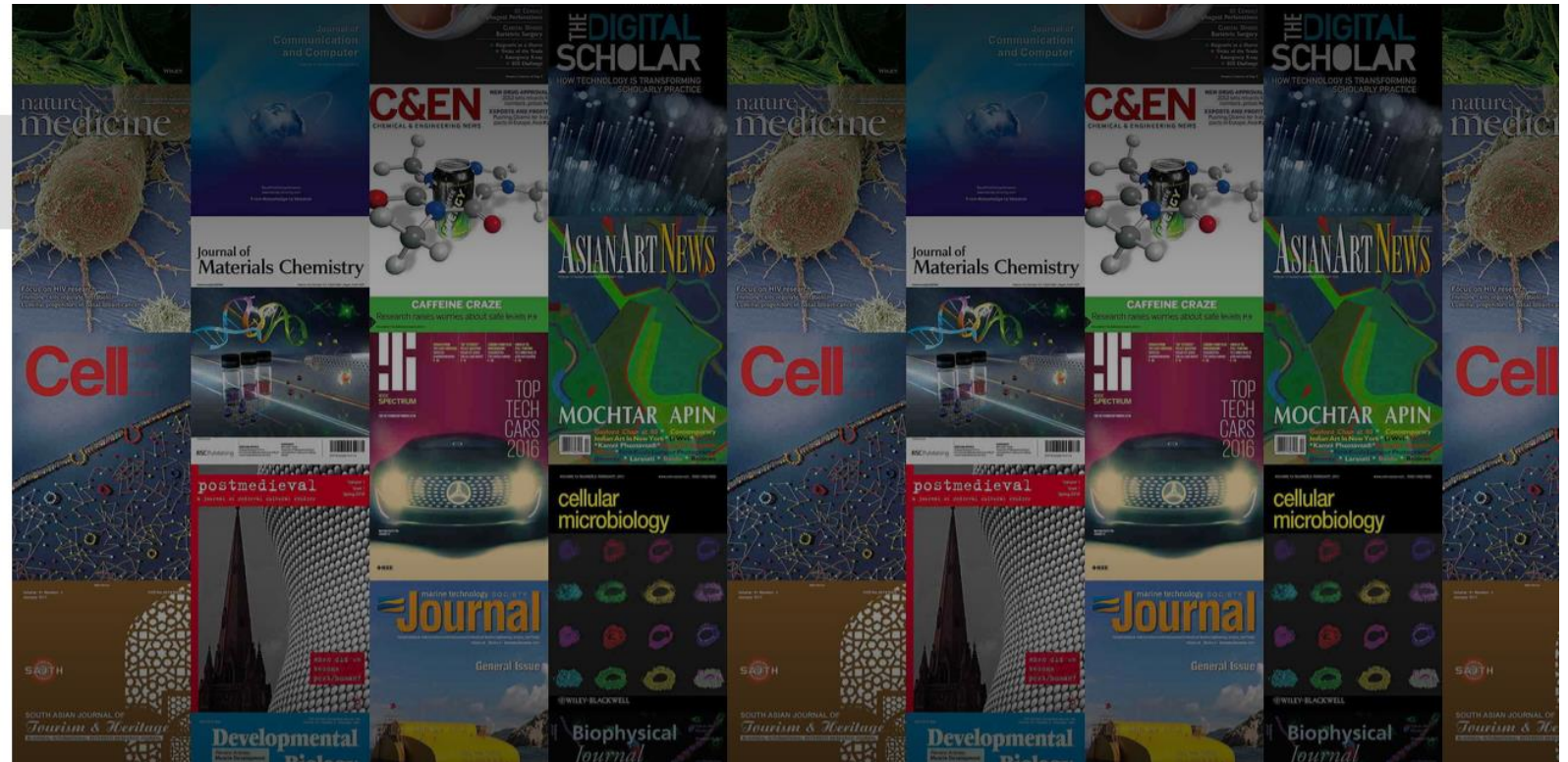
Business and Economics

Earth and Environmental Sciences

Engineering and Technology

History

Law and Legal Studies



Browzine



Journals / Conferences



Latest research and in-depth
information



Useful for your final project

Research papers

Searching bibliographic databases



Bibliographic databases



Books (often
chapter level
indexing)



Journals



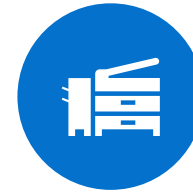
Conferences



Patents



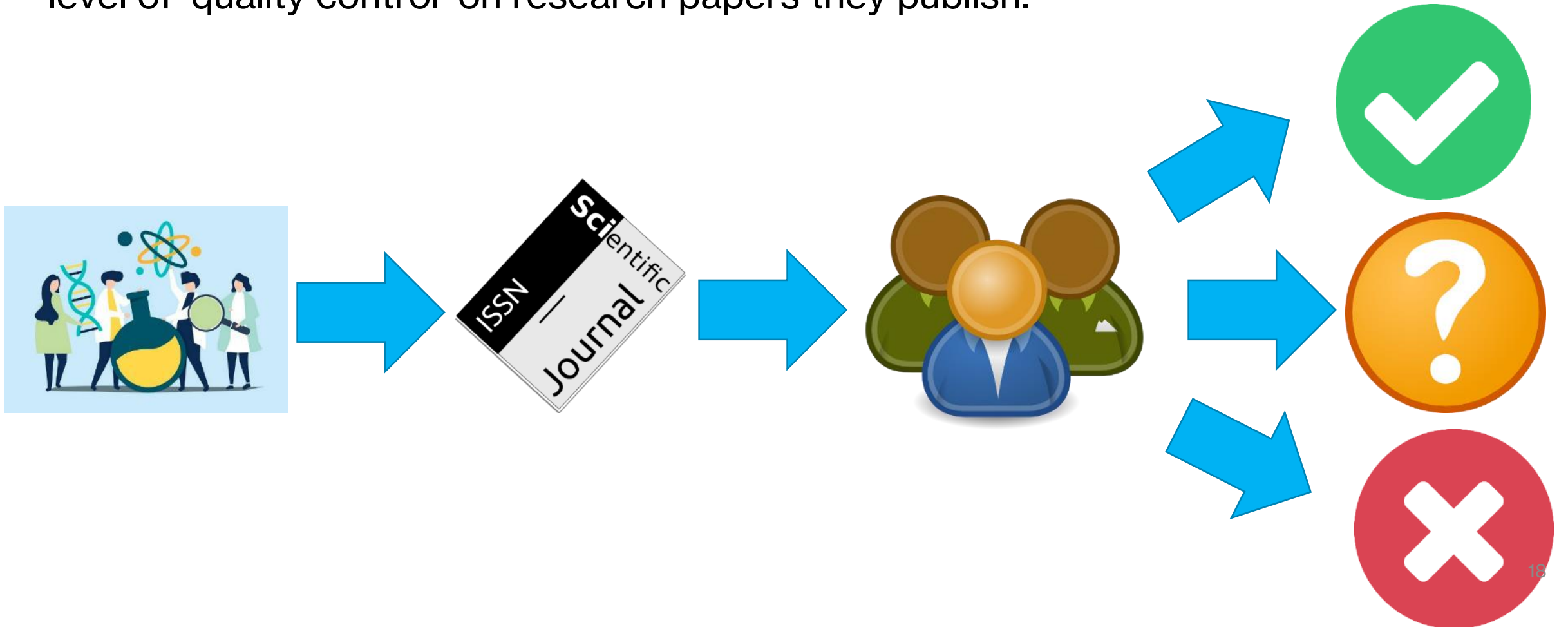
Grey literature



Pre-prints

About Peer review

- Academic journals usually use a **peer review** process to provide a level of 'quality control' on research papers they publish.



The slide features a dark grey background on the left side, adorned with several paper airplanes. One yellow airplane is positioned in the center, pointing right, with two faint white lines trailing behind it. The right side of the slide is white, decorated with a large blue circle and two light grey circles in the top right corner.

Content on databases

- Mostly peer-reviewed
 - Selected before being added to the database
 - Indexed by subject specialists
 - Keywords assigned to each paper
-

Structuring a search

1

Understand your question

- Background reading around your topic & have a clear question

2

Identify keywords

- Words that will help you find sources related to your research topic

3

Construct your search

- Put your search terms together using Boolean logic

4

Carry out your search

- Enter your search string into a suitable literature database

5

Store and export your results

- Extract useful papers from your results and store the details

Planning a search

Research topic:

Mathematical Modelling
of Cancer Therapy

Break down a research question into concepts

- **Concepts** are the broad themes your question deals with.
- A concept could be a particular process, resource, material or device, or a particular outcome you are interested in.
- Using concepts often helps clarify the question you are trying to ask and **makes searching easier!**

	Concept 1 - Method	Concept 2- Disease	Concept 3 - Solution	Concept 4 -
Keywords				

Keywords

Keywords **ARE**

- The main topic words that will be the focus of your search.
- They will help you find relevant literature in databases.

Keywords are (usually) **NOT**

- Descriptive, relational or action words e.g. advantages/disadvantages, compare, contrast, analyse etc.



Adding the keywords

- Think about the keywords that fit under each concept.

Mathematical Modelling of Cancer Therapy

	Concept 1 - Method	Concept 2- Disease	Concept 3 - Solution	Concept 4 -
Keywords	Model "Mathematical model*"	Cancer Tumor Neoplasm	Treatment Therapy Chemotherapy	

Wildcards and Phrases

Wildcard symbols for word variants:

Truncation:

model for models, modelling...*

British and American spelling:

characteri?ation

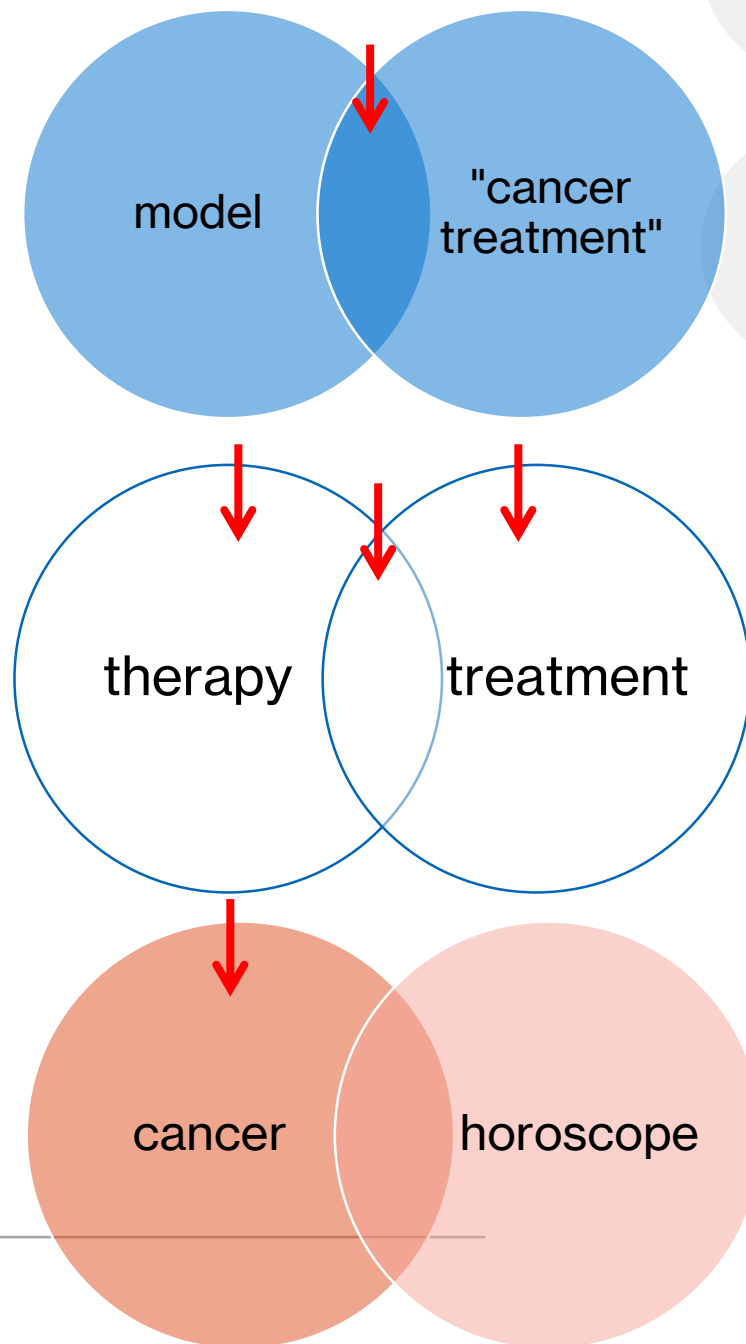
Phrases:

"Tumor growth"



Boolean operators

- **AND** – narrows down
- **OR** – broadens out
- **NOT** – excludes



Combining Boolean operators

OR: synonyms and keywords for the same concept:

Cancer OR Tumor OR Neoplasm

AND: different concepts:

- Model* OR "Mathematical model"

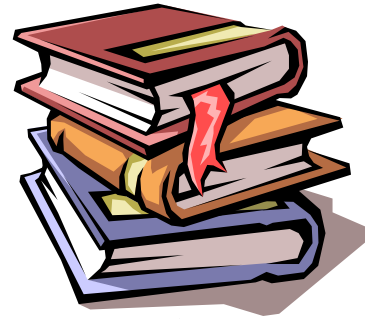
AND

- "Cancer OR Tumor OR Neoplasm
-

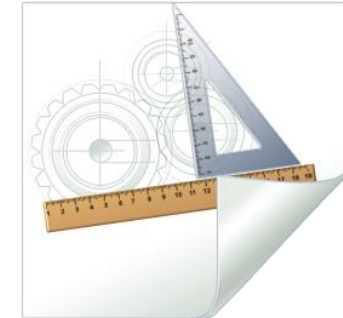
SCOPUS

One of our most popular databases for finding scientific literature.

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- 49.2 million International patent records



SCOPUS

- Articles from 27, 950 journals and 11.7 million conference papers



- Other material including pre-prints and trade journals.



Useful databases for specific subjects

- MathSciNet
- ACM Digital Library
- Find more relevant databases on your Subject LibGuide

Live Demo: Searching databases



Google Scholar

- Great when unsure about article details or journal abbreviations
- [Find it @ Oxford](#)
- [Google Scholar Button](#)



Google Scholar at Oxford

Selecting **Settings** from the top of the [Google Scholar Home Page](#)

Select **Library Links**

Searching for **University of Oxford** and selecting it from the list

Saving your settings

You will now see '**Find it @ Oxford**' links next to items in your Google Scholar results that you can use to access the full-text provided by library subscriptions.

Cross-system comparisons of soil nitrogen transformations and nitrous oxide flux
in **tropical forest ecosystems**

PA Matson, PM Vitousek - Global Biogeochemical Cycles, 1987 - Wiley Online Library

Abstract Soil nitrogen transformations and nitrous oxide flux across the soil-air interface
were measured in a range of **tropical forest** sites in Costa Rica, Brazil, and Hawaii. Nitrogen

Find it @ Oxford

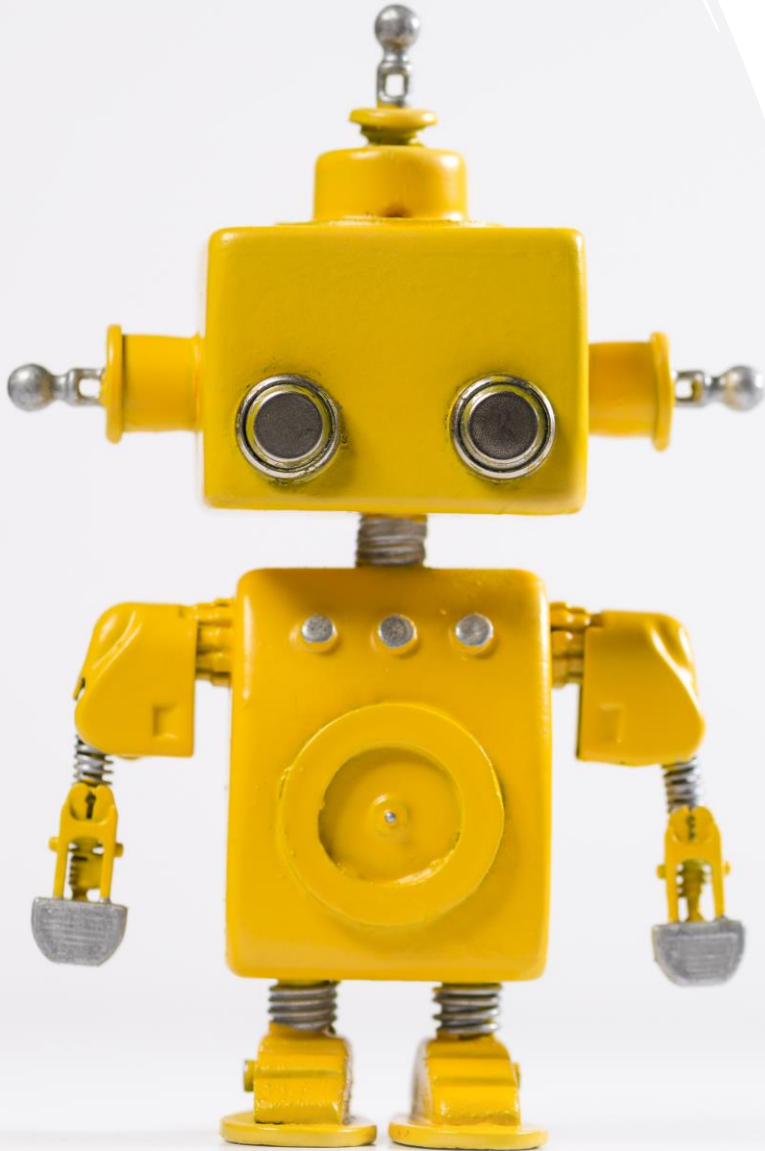
Theses

Oxford: [SOLO](#) & [ORA](#)

Non-Oxford: [EThOS](#),
[DART-Europe](#)

Worldwide: [Proquest
Dissertations and Theses
Global](#)





What about AI?

- Use AI tools in assessed work only if you have permission – more information on the [OU page on plagiarism](#)
- Sometimes helpful for generating possible synonyms when you're developing your search.
- Often provide references to non-existent sources.
- Can't replace, careful, critical reading and thinking.
- **Fact-check answers from AI tools!**
- More guidance here - <https://www.ox.ac.uk/students/academic/guidance/skills/ai-study>

Referencing



What does 'referencing' mean?

- Acknowledging/crediting information from other people and sources that you've used in your own work.

			
A quote from a book.	Data from a research article.	AI tools you have used.	An image or picture.

In-text citations and Reference List

Essay Assignment

The programming language C was first developed in the 1970s on UNIX based computer systems (Kernighan & Ritchie, 1988, p. 1). The language has...

References

Kernighan
Hal

An in-text **citation** to a source is included in the main text

(1988). *The C programming language* (2nd ed.). Prentice

In-text citations and Reference List

Essay Assignment

The programming language C was first developed in the early 1970s for Bell Telephone Laboratories systems (Kernighan & Ritchie, 1988, p. 1). The language

A full **reference** at the end of the document contains the information required to describe the source

References

Kernighan, B. W., & Ritchie, D. M. (1988). *The C programming language* (2nd ed.). Prentice Hall.

An in-text **citation** to a source is included in the main text

(1988). *The C programming language* (2nd ed.). Prentice

Why do we need to reference?



Supports your arguments with **evidence** and **examples**



Gives others **credit** and **recognition** for their work



Avoids plagiarism, by clearly showing where you have used the ideas of others



Demonstrates the **quality** of resources you have used and your own **knowledge** of the subject

Useful resources on referencing and plagiarism

- [Cite them right online](#)
- [OU web page on plagiarism](#)
- [Avoiding Plagiarism online course](#)

Reference Managers

- **Reference management software** helps you store and organise your references.
- They can **create** in-text citations and reference lists.
- Can **save you time** when writing.
- Different software packages are available.
- **EndNote** and **RefWorks** are **free** for University members.
- Find out more - <https://libguides.bodleian.ox.ac.uk/reference-management>



Most reference managers can import and export BibTeX (.bib) files

Additional functionality varies

Automatic generation of cite-keys

Automatic generation of **/cite** commands for easy copy-and-paste into LaTeX scripts


Latex and
reference
managers

Jabref

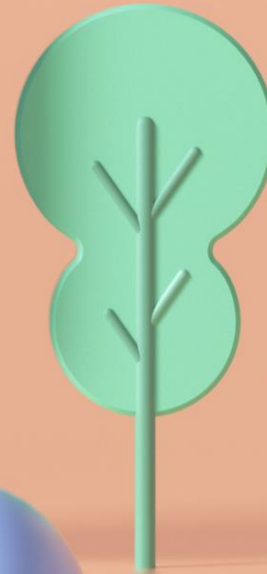
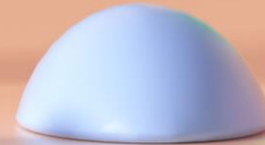
- Open source citation management software for BibTeX
- Runs on Windows, Mac and Linux
- Freely downloadable at <https://www.jabref.org/>



More
information?

- 
- [Managing Your References guide](#)
 - Details of each package
 - Comparison table of features
 - Instructions for Latex & reference managers

Live Demo: Jabref





Remember you
can always ask
for help

- This is a lot of information in one session.
- You can always book an appointment with your subject librarian in person or online or just email.



Any questions?

Thank you!

For any questions email me:

alessandra.vetrugno@bodleian.ox.ac.uk

Twitter/X: <https://twitter.com/radcliffescilib>

Website: <https://www.bodleian.ox.ac.uk/libraries/rs1>

Feedback greatly appreciated

- https://go.glam.ox.ac.uk/training_feedback

