

Uni Oxbridge Reading Lists for Chemistry and Biology 2023

For a digital version of this scan this QR code for clickable links (in e.g. MS Word app):

Chemistry in the news – Where to learn about recent important events.

Try to read **3 interesting** and **2 useful** articles every week of A2 (or 1 of each type every week at AS):

UK – Royal Society of Chemistry Magazine (recommended by Oxford Uni):

<https://www.chemistryworld.com/news>

US – American Chemical Society Magazine:

<https://www.acs.org/education/resources/highschool/chemmatters.html>

Science news websites

International News – Associated Press (less focused on the science of “chemistry”): <https://apnews.com/hub/chemistry>

<https://www.sciencenews.org/topic/chemistry>

Requires subscription (possibly worth it in A2):

<https://www.newscientist.com/article-topic/chemistry/>

Especially good if also interested in business and finance: <https://www.economist.com/science-and-technology>

Oxford research in chemistry (recommended by Oxford Uni):

- [Turning orange into grapefruit](#)
- [Fuel cells inspired by nature video](#)
- [Chemistry in the garden video](#)



Science Podcasts

NPR: Short Wave - Short (10min) episodes on a single science news topic. Very good.

NYT: Hard Fork – Weekly technology with a focus on Silicon Valley news. Outstanding.

Economist: Babbage – Weekly science podcast (subscription may be necessary) focusing on a single topic. 40minutes. Excellent

Universe Today: Fraser Crain – A focus on astronomy, cosmology, and space news. Reliably Excellent, often outstanding.

BBC: In our Time with Melvyn Bragg – Sometimes covers science, always outstanding.

New Scientist: Podcast – Science news. It can be good.

Freakonomics M.D. – Investigating the intersection of economics and medicine. Excellent.

BBC: The Infinities Monkey Cage – Panel talk show on big science topics. Often very good.

Stephen Fry's Great Leap Years – History of science and technology. Outstanding.

BBC Discovery – “An in-depth look at the most significant ideas, discoveries and trends in science”. Often good.

BBC: History Extra Podcast – Sometimes covers the history of science or scientists, always excellent, often outstanding.

Nature Podcast – Outstanding science packaged into a relentlessly mediocre podcast.

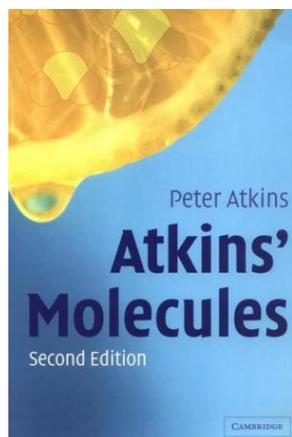


General and Popular Chemistry Books

These books are all from this site:

<https://www.univ.ox.ac.uk/applying-to-univ/reading-bank/?category=maths-physical-life-sciences&subcategory=chemistry>

If you click on each you can get a review by the Oxford student (their degree subject is in brackets)



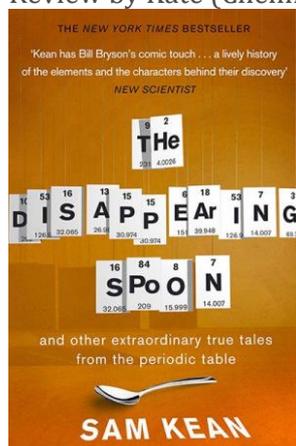
[Atkins' Molecules](#)

By Peter Atkins
Video Review by Dr Justin Benesch (Chemistry)



[Chemistry Review](#)

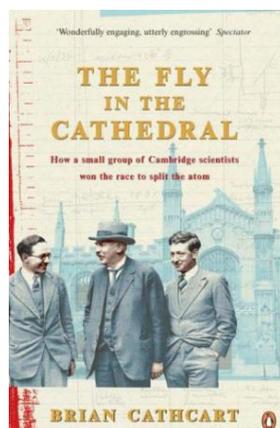
By Hodder Education
Review by Kate (Chemistry)



[The Disappearing Spoon](#)

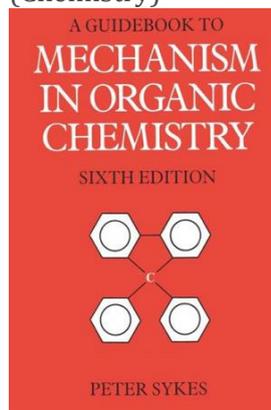
By Sam Kean

Review by Samantha (Chemistry)



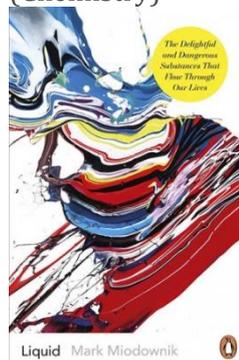
[The Fly in the Cathedral](#)

By Brian Cathcart
Reviews by Genny & Josie (Chemistry)



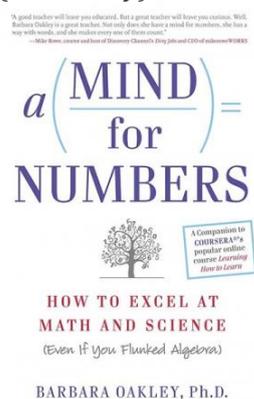
[Guidebook to Mechanism in Organic Chemistry](#)

By Peter Sykes
Review by Andrew (Chemistry)



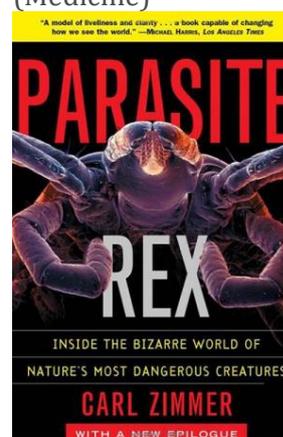
[Liquid](#)

By Mark Miodownik
Review by Halima (Chemistry)



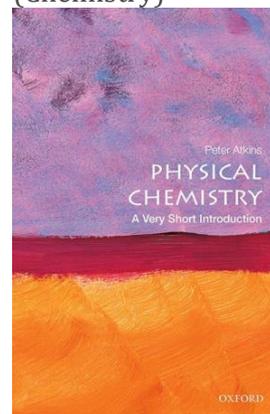
[A Mind for Numbers](#)

By Barbara Oakley
Review by Sanskrithi (Medicine)



[Parasite Rex](#)

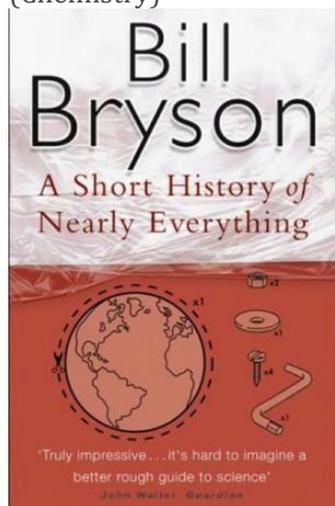
By Carl Zimmer
Review by Niamh (Chemistry)



[Physical Chemistry: A Very Short Introduction](#)

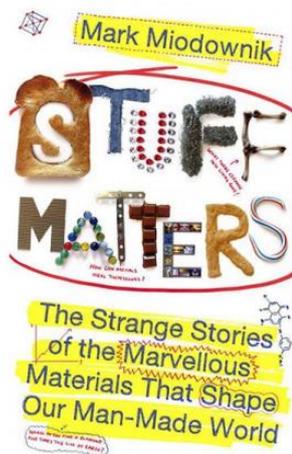


By Peter Atkins
Review by Phoebe
(Chemistry)



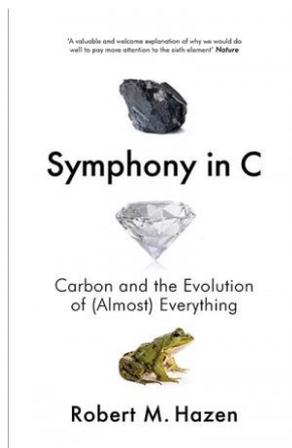
[A Short History of Nearly Everything](#)

By Bill Bryson
Reviews by Hannah
(Chemistry) & Charlie
(Chemistry)



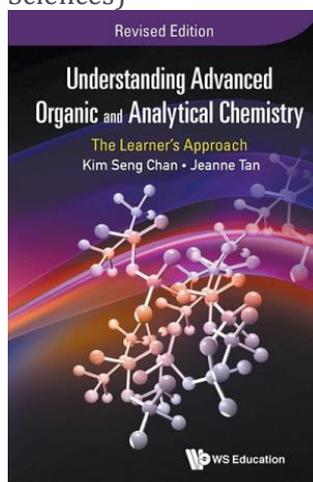
[Stuff Matters](#)

By Mark Miodownik
Review by Bex (Medicine)



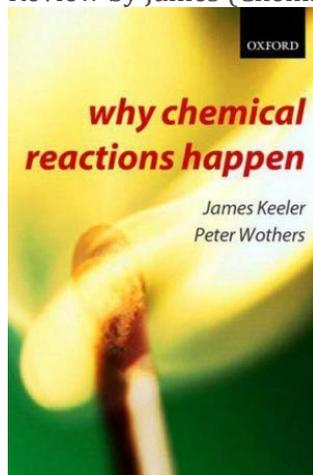
[Symphony in C: Carbon and the Evolution of \(Almost\) Everything](#)

By Robert M Hazen
Review by Noureen (Earth Sciences)



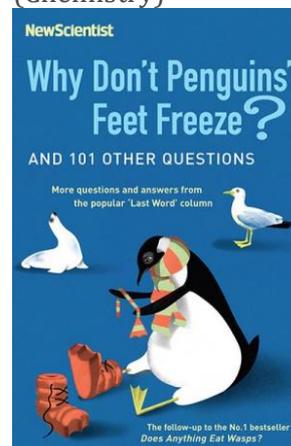
[Understanding Advanced Organic and Analytic Chemistry](#)

By Kim Seng Chan and Jeanne Tan
Review by James (Chemistry)



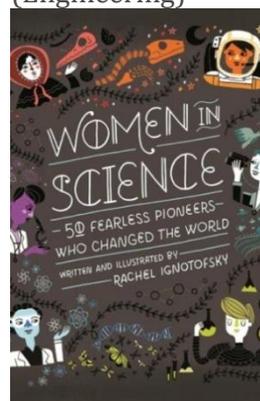
[Why Chemical Reactions Happen](#)

By James Keeler and Peter Wothers
Reviews by Rachel
(Chemistry), Harry
(Chemistry) & Ruth
(Chemistry)



[Why Don't Penguins' Feet Freeze?](#)

By New Scientist
Review by George
(Engineering)



[Women in Science](#)

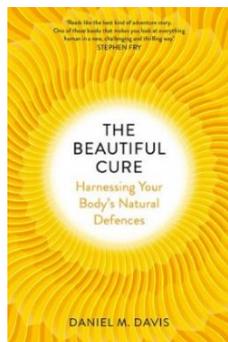
By Rachel Ignotofsky
Review by Charlotte
(Chemistry)



General and Popular BIOLOGY Books

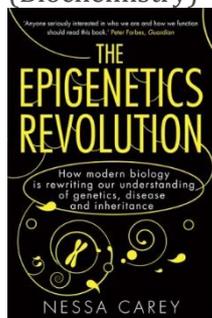
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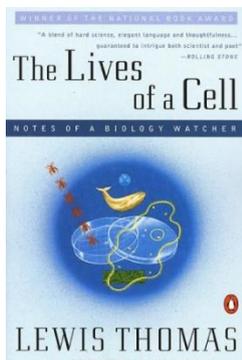
[The Beautiful Cure](#)

By Daniel M Davis
Review by Emily
(Biochemistry)



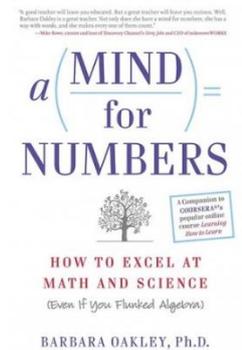
[The Epigenetics Revolution](#)

By Nessa Carey
Reviews by Katie H
(Biochemistry), Greta
(Medicine) & Cat (Biomedical
Sciences)



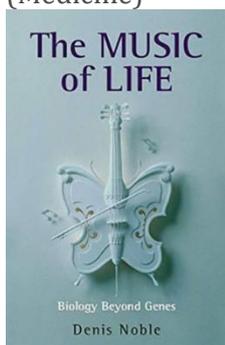
[The Lives of a Cell](#)

By Lewis Thomas
Review by Barbie
(Biochemistry)



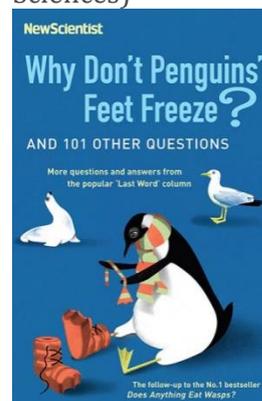
[A Mind for Numbers](#)

By Barbara Oakley
Review by Sanskrithi
(Medicine)



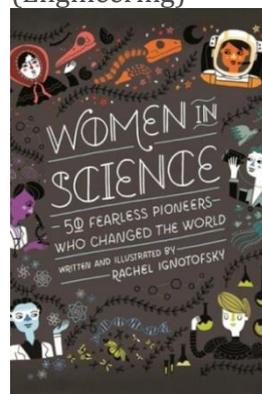
[The Music of Life – Biology Beyond Genes](#)

By Denis Noble
Review by Kate (Biomedical
Sciences)



[Why Don't Penguins' Feet Freeze?](#)

By New Scientist
Review by George
(Engineering)



[Women in Science](#)

By Rachel Ignotofsky
Review by Charlotte
(Chemistry)

Chemistry Textbooks

These books can be of help to further pursue ideas you find fascinating at A2, but you should probably try these online textbooks:

For A level chemistry: <https://www.chemguide.co.uk/>

For some A level and mainly undergraduate chemistry (also has online textbooks about other subjects): <https://chem.libretexts.org/>



For the Wikipedia Portal for everything chemistry: <https://en.wikipedia.org/wiki/Portal:Chemistry>

From Oxford University (accessed 29th Aug 2023):

<https://www.ox.ac.uk/admissions/undergraduate/courses/suggested-subject-resources>

Introductory reading for [Chemistry](#).

*Physical Chemistry, P W Atkins, Oxford University Press (8th edn.) 2006, [7th edn. 2001]

* Inorganic Chemistry, Shriver and Atkins, Oxford University Press (4th edn) 2006, (previous edn., 1999]

Chemistry of the Elements, Greenwood & Earnshaw, Pergamon (2nd edn.), 1997 [1st edn. 1985]

Foundations of Organic Chemistry, Hornby & Peach, Oxford Chemistry Primer, OUP, 1996

* A Guide to Mechanism in Organic Chemistry, Sykes, Pearson (6th edn.), 1986

Organic Chemistry, Maitland, Jones, Norton, (3rd edn.) 2004

* Mathematical Methods for Science Students, G. Stephenson, Pearson (2nd edn.) 1978, rep. 1984

Organic Chemistry, Clayden, Greeves, Warren and Wothers, OUP

*especially useful

