

NS2102: Astrobiology and Astrophysics

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Alonso Ricardo, 'ORIGIN OF LIFE ON EARTH', *Scientific American*, 301.3 (2009)
<http://gl9sn3dh2u.search.serialssolutions.com/?ctx_ver=Z39.88-2004&ctx_enc=info%253Aofi%252Fenc%253AUTF-8&rft_id=info:sid/summon.serialssolutions.com&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=ORIGIN+OF+LIFE+ON+EARTH&rft.jtitle=Scientific+American&rft.au=Alonso+Ricardo&rft.au=Jack+W+Szostak&rft.date=2009-09-01&rft.pub=Scientific+American%252C+Incorporated&rft.issn=0036-8733&rft.eissn=1946-7087&rft.volume=301&rft.issue=3&rft.spage=54&rft.externalDocID=1851532311¶mdict=en-US>

Averill, Bruce and Eldredge, Patricia, *Chemistry: Principles, Patterns, and Applications*, International ed (San Francisco, Calif: Pearson Benjamin Cummings, 2007)

Bada, Jeffrey L, 'New Insights into Prebiotic Chemistry from Stanley Miller's Spark Discharge Experiments', 42, 2186-96
<<http://pubs.rsc.org/en/content/articlepdf/2013/cs/c3cs35433d>>

Barton, Nicholas H., *Evolution* (Cold Spring Harbor, N.Y.: Cold Spring Harbor Laboratory Press, 2007)

Berg, Jeremy M., Tymoczko, John L., and Stryer, Lubert, *Biochemistry*, 7th ed (New York: W. H. Freeman, 2011)
<<https://bibliu.com/users/saml/samlLeicester?RelayState=eyJjdXN0b21fbGF1bmNoX3VybC16liMvdmlldy9ib29rcy85NzgxMzE5MjQ4MDYyL2VwdWlVtT0VCUFMveGh0bWwvYmVyXzk3ODZzMTkxMTQ2NzFfY29udGVudHMuaHRtbCJ9>>

Boss, A. P., 'Giant Planet Formation by Gravitational Instability', *Science*, 276.5320 (1997), 1836-39 <<https://doi.org/10.1126/science.276.5320.1836>>

Brin, G.D., 'The Great Silence - the Controversy Concerning Extraterrestrial Intelligent Life', 24, 283-309 <<http://adsabs.harvard.edu/full/1983QJRAS..24..283B>>

Brooker, Robert J., *Biology*, 2nd ed (New York: McGraw-Hill Higher Education, 2010)

Brown, Theodore L., *Chemistry: The Central Science*, 12th ed (Boston [Mass.]: Prentice Hall, 2012)

Burrows, Andrew, *Chemistry3: Introducing Inorganic, Organic and Physical Chemistry* (Oxford: Oxford University Press, 2009)
<<https://bibliu.com/app/#/view/books/9780192529893/epub/OEBPS/contents.html>>

Canganella, Francesco, and Juergen Wiegel, 'Extremophiles: From Abyssal to Terrestrial

Ecosystems and Possibly Beyond', *Naturwissenschaften*, 98.4 (2011), 253-79
<<https://doi.org/10.1007/s00114-011-0775-2>>

Carl Sagan, 'A Search for Life on Earth from the Galileo Spacecraft', *Nature*, 365.6448 (1993)
<http://gl9sn3dh2u.search.serialssolutions.com/?ctx_ver=Z39.88-2004&ctx_enc=info%253Aofi%252Fenc%253AUTF-8&rft_id=info:sid/summon.serialssolutions.com&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=A+search+for+life+on+Earth+from+the+Galileo+spacecraft&rft.jtitle=Nature&rft.au=Carl+Sagan&rft.au=W+Reid+Thompson&rft.au=Robert+Carlson&rft.au=Donald+Gurnett&rft.date=1993-10-21&rft.pub=Nature+Publishing+Group&rft.issn=0028-0836&rft.eissn=1476-4687&rft.volume=365&rft.issue=6448&rft.spage=715&rft.externalDocID=1033560451¶mdict=en-US>

Carroll, Bradley W. and Ostlie, Dale A., *An Introduction to Modern Astrophysics*, 2nd International ed (San Francisco: Pearson Addison-Wesley, 2007)

Charbonneau, David, Timothy M. Brown, David W. Latham, and Michel Mayor, 'Detection of Planetary Transits Across a Sun-like Star', *The Astrophysical Journal*, 529.1 (2000), L45-48
<<https://doi.org/10.1086/312457>>

Dartnell, Lewis, *Knowledge : How to Rebuild Our World from Scratch* (London: Vintage, 2014)

Deguchi, S., H. Shimoshige, M. Tsudome, S.-a. Mukai, R. W. Corkery, S. Ito, and others, 'Microbial Growth at Hyperaccelerations up to 403,627 x g', *Proceedings of the National Academy of Sciences*, 108.19 (2011), 7997-8002
<<https://doi.org/10.1073/pnas.1018027108>>

Di Giulio, Massimo, 'Biological Evidence against the Panspermia Theory', *Journal of Theoretical Biology*, 266.4 (2010), 569-72 <<https://doi.org/10.1016/j.jtbi.2010.07.017>>

Freedman, Roger A., Geller, Robert M., and Kaufmann, William J., *Universe*, 9th ed (New York, NY: W.H. Freeman, 2011)

Gilmour, Iain, Sephton, Mark A., Conway, Andrew, and Open University, *An Introduction to Astrobiology* (Cambridge: Cambridge University Press/Open University Press, 2004)

Gislason, Sigurdur R., Eric H. Oelkers, Eydis S. Eiriksdottir, Marin I. Kardjilov, Gudrun Gisladottir, Bergur Sigfusson, and others, 'Direct Evidence of the Feedback between Climate and Weathering', *Earth and Planetary Science Letters*, 277.1-2 (2009), 213-22
<<https://doi.org/10.1016/j.epsl.2008.10.018>>

Grotzinger, John P. and Jordan, Thomas H., *Understanding Earth*, 6th ed (New York: W. H. Freeman, 2010)

Guo, Jianpo, Fenghui Zhang, Xianfei Zhang, and Zhanwen Han, 'Habitable Zones and UV Habitable Zones around Host Stars', *Astrophysics and Space Science*, 325.1 (2010), 25-30
<<https://doi.org/10.1007/s10509-009-0173-9>>

Hart, Michael H, 'Explanation for the Absence of Extraterrestrials on Earth.', 640, 128-35
<http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1975QJRAS..16..128H&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf>

Housecroft, Catherine E. and Constable, Edwin C., *Chemistry: An Introduction to Organic, Inorganic and Physical Chemistry*, 4th ed (Harlow: Prentice Hall, 2010)

Hüttenhofer, Alexander, Peter Schattner, and Norbert Polacek, 'Non-Coding RNAs: Hope or Hype?', *Trends in Genetics*, 21.5 (2005), 289–97
<<https://doi.org/10.1016/j.tig.2005.03.007>>

Inaba, S., G.W. Wetherill, and M. Ikoma, 'Formation of Gas Giant Planets: Core Accretion Models with Fragmentation and Planetary Envelope', *Icarus*, 166.1 (2003), 46–62
<<https://doi.org/10.1016/j.icarus.2003.08.001>>

Kallenbach, Reinald, Willy Benz, and Günter Lugmair, 'Introduction: Timescales for the Formation of Terrestrial Planets', in *From Dust to Terrestrial Planets*, ed. by W. Benz, R. Kallenbach, and G.W. Lugmair (Space Sciences Series of ISSI: Springer Science+Business Media, B.V., 2012), Space sciences series of ISSI

Kasting, J, 'Habitable Zones around Main Sequence Stars', *Icarus*, 101.1 (1993), 108–28
<<https://doi.org/10.1006/icar.1993.1010>>

Kauffman, Stuart A., *At Home in the Universe: The Search for Laws of Complexity* (London: Penguin, 1996)

———, *The Origins of Order: Self-Organization and Selection in Evolution* (New York: Oxford University Press, 1993)

Lada, Charles J., 'Stellar Multiplicity and the Initial Mass Function: Most Stars Are Single', *The Astrophysical Journal*, 640.1 (2006), L63–66 <<https://doi.org/10.1086/503158>>

Lane, Nick, *Life Ascending: The Ten Great Inventions of Evolution* (London: Profile, 2009)

Lineweaver, C. H., 'The Galactic Habitable Zone and the Age Distribution of Complex Life in the Milky Way', *Science*, 303.5654 (2004), 59–62
<<https://doi.org/10.1126/science.1092322>>

Lissauer, Jack, 'The Outer Planets and Their Moons: Formation of the Outer Planets', in *The Outer Planets and Their Moons: Comparative Studies of the Outer Planets Prior to the Exploration of the Saturn System by Cassini-Huygens: Volume Resulting from an ISSI Workshop, 12-16 January 2004, Bern, Switzerland* (Space Sciences Series of ISSI: Springer, 2005), xix <<https://ebookcentral.proquest.com/lib/leicester/detail.action?docID=303249>>

Lissauer, Jack Jonathan, and Imke De Pater, *Fundamental Planetary Science: Physics, Chemistry and Habitability* (New York: Cambridge University Press, 2013)
<<http://site.ebrary.com/lib/leicester/docDetail.action?docID=10812136>>

Lundin, Rickard, Helmut Lammer, and Ignasi Ribas, 'Planetary Magnetic Fields and Solar Forcing: Implications for Atmospheric Evolution', *Space Science Reviews*, 129.1–3 (2007), 245–78 <<https://doi.org/10.1007/s11214-007-9176-4>>

Lunine, Jonathan Irving, *Astrobiology: A Multidisciplinary Approach* (San Francisco, Calif: Pearson Addison Wesley, 2005)

Mao, Shunde, and Bohdan Paczynski, 'Gravitational Microlensing by Double Stars and Planetary Systems', *The Astrophysical Journal*, 374 (1991)
<<https://doi.org/10.1086/186066>>

Mattick, J. S., 'Small Regulatory RNAs in Mammals', *Human Molecular Genetics*, 14.suppl_1 (2005), R121-32 <<https://doi.org/10.1093/hmg/ddi101>>

Mattick, John S., 'Opinion: RNA Regulation: A New Genetics?', *Nature Reviews Genetics*, 5.4 (2004), 316-23 <<https://doi.org/10.1038/nrg1321>>

———, 'Opinion: RNA Regulation: A New Genetics?', *Nature Reviews Genetics*, 5.4 (2004), 316-23 <<https://doi.org/10.1038/nrg1321>>

Mayor, Michel, and Didier Queloz, 'A Jupiter-Mass Companion to a Solar-Type Star', *Nature*, 378.6555 (1995), 355-59 <<https://doi.org/10.1038/378355a0>>

'Microbial Growth at Hyperaccelerations up to $403,627 \times g$ ', 108.19 (10AD)
<<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3093466/?tool=pmcentrez&rendertype=abstract>>

Murray, Robert K. and Harper, Harold A., *Harper's Illustrated Biochemistry*, 28th ed (New York, N.Y.: McGraw-Hill Medical, 2009)
<<https://ebookcentral.proquest.com/lib/leicester/detail.action?docID=4657718>>

Nelson, David L., Cox, Michael M., and Lehninger, Albert L., *Lehninger Principles of Biochemistry*, 6th ed (New York, N.Y.: W.H. Freeman, 2013)
<<https://bibliu.com/users/saml/samlLeicester?RelayState=eyJjdXN0b21fbGF1bmNoX3VybC16liMvdmlldy9ib29rcy85NzgxMzE5MTUwODc3L2VwdWlvT0VCUFMveGh0bWwvbmVsXzk3OUE0NjQxODc5NTdfY29udC5odG1sln0%3D>>

'Panspermia (Wikipedia)' <<https://en.wikipedia.org/wiki/Panspermia>>

Plaxco, Kevin W. and Gross, Michael, *Astrobiology: A Brief Introduction*, 2nd ed (Baltimore, Mass: Johns Hopkins University Press, 2011)

Raven, Peter H., Johnson, George B., Mason, Kenneth A., Losos, Jonathan B., and Singer, Susan R., *Biology*, 10th ed (New York, NY: McGraw-Hill, 2014)

Reece, Jane B. and Campbell, Neil A., *Biology*, 9th ed (Boston: Pearson Education, 2011)
<http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5663610340002746&institutionId=2746&customerId=2745>

Sullivan, Woodruff Turner and Baross, John A., *Planets and Life: The Emerging Science of Astrobiology* (Cambridge: Cambridge University Press, 2007)

Swain, Mark R., Pieter Deroo, Caitlin A. Griffith, Giovanna Tinetti, Azam Thatte, Gautam Vasisht, and others, 'A Ground-Based near-Infrared Emission Spectrum of the Exoplanet HD 189733b', *Nature*, 463.7281 (2010), 637-39 <<https://doi.org/10.1038/nature08775>>

'The Evolution of Organelles'
<<http://www.sumanasinc.com/webcontent/animations/content/organelles.html>>

Thommes, E. W., S. Matsumura, and F. A. Rasio, 'Gas Disks to Gas Giants: Simulating the Birth of Planetary Systems', *Science*, 321.5890 (2008), 814-17
<<https://doi.org/10.1126/science.1159723>>

Tipler, Paul A. and Mosca, Gene P., *Physics for Scientists and Engineers: With Modern Physics*, 6th ed (New York, NY: W.H. Freeman, 2008)
<<https://bibliu.com/app/#/view/books/9781319155988/pdf2htmlex/index.html>>

Walker, James C. G., P. B. Hays, and J. F. Kasting, 'A Negative Feedback Mechanism for the Long-Term Stabilization of Earth's Surface Temperature', *Journal of Geophysical Research*, 86.C10 (1981) <<https://doi.org/10.1029/JC086iC10p09776>>

Wesson, Paul S, 'Cosmology, Extraterrestrial Intelligence, and a Resolution of the Fermi-Hart Par', 31, 161-70 <<http://adsabs.harvard.edu/abs/1990QJRAS..31..161W>>

Wickramasinghe, N. Chandra, and J. T. Trevors, 'Non-Terrestrial Origin of Life: A Transformative Research Paradigm Shift', *Theory in Biosciences*, 132.2 (2013), 133-37
<<https://doi.org/10.1007/s12064-012-0172-1>>

Willenbring, Jane K., and Friedhelm von Blanckenburg, 'Long-Term Stability of Global Erosion Rates and Weathering during Late-Cenozoic Cooling', *Nature*, 465.7295 (2010), 211-14 <<https://doi.org/10.1038/nature09044>>

Zumdahl, Steven S., *Chemical Principles*, 6th ed (Belmont, Calif: Brooks/Cole, 2009)
<http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5663963920002746&institutionId=2746&customerId=2745>