International Literature

The presented list, hereunder, is a compilation of existing literature related to regenerative life support systems. It has no desire to be complete or selective.

Number	Bibliography
1	Ai W, Guo S, Qin L, et al. Development of a ground-based space micro-algae photo-bioreactor. Adv Space Res 2008;41(5):742–7
2	Allen JP, Nelson M, Alling A. The legacy of Biosphere 2 for the study of biospherics and closed ecological system. Adv Space Res 2003;31(7):1629–39
3	André M, Massimino D. Growth of plants at reduced pressures: experiments inwheat–technological advantages and constraints. Adv Space Res 1992;12(5):97–106
4	André M, Thiéry J, Cournac L. ECOSIMP2 model: prediction of CO2 concentration changes and carbon status in closed ecosystems. Adv Space Res 1994;14(11):323–6
5	Averner M. NASA Advanced Life Support Program Plan. Office of Life and Microgravity Sciences and Applications Division, NASA Headquarters; 1993.gravity Sciences and Applications Division, NASA Headquarters; 1993
6	Bamsey M, Graham T, Stasiak M, et al. Canadian advanced life support capacities and future directions. Adv Space Res 2009;2009(44):251–61
7	Barta DJ, Henninger DL. Regenerative life support systems–why do we need them? Adv Space Res 1994;14(11):403–10
8	Blüm V, Kreuzberg K, Stretzke E. C.E.B.A.S. mini module: test results of an artificial (man-made) aquatic ecosystem. Adv Space Res 1994;14(11):89–98
9	Boscheri G, Kacira M, Patterson L, et al. Modified energy cascade model adapted for a multicrop Lunar greenhouse prototype. Adv Space Res 2012;2012(50):941–51
10	Chen M, Xiashi L, Liu C. The equipment of using Azolla for O2-supplimentation and its test. Space Med Med Eng 2000;13(1):14–8 (In Chinese).
11	Chen M, Deng S, Yang Y, et al. Efficacy of oxygen-supplying capacity of Azolla in a controlled life support system. Adv Space Res 2012;2012 (49):487–92
12	Daunicht HJ, Brinkjans. Gas exchange and growth of plants under reduced air pressure. Adv Space Res 1992;12(5):107–14
13	Eley JH, Myers J. Study of a photosynthetic gas exchanger. A quantitative repetition of the Priestley experiment. Tex J Sci 1964;16:296–333.
14	Finetto C, Lobascio C, Rapisarda A. Concept of a Lunar FARM: Food and revitalization module. Acta Astronaut 2010;2010(66):1329–40
15	Fu Y, Li L, Xie B, et al. How to establish a bioregenerative life support system for long-term crewed missions to the moon or Mars. Astrobiology 2016;16 (12):925–34
16	Gitelson II, Terskov IA, Kovrov BG, et al. Life support system with autonomous control employing plant photosynthesis. Acta Astronaut 1976;53(4–10):249–57
17	Gitelson II, Terskov IA, Kovrov BG, et al. Long-term experiments on man's stay in biological life-support system. Adv Space Res 1989;9(8):65–71.
18	Gitelson II, Lisovsky GM, MacElroy RD. Manmade closed ecological systems. 2003. Ed. Taylor & Francis London, UK. ISBN 0-415-29998-5. 402 p.
19	Guo S, Liu X, Ai W, et al. Development of an improved ground-based prototype of space plant-growing facility. Adv Space Res 2008;41(5):736–41
20	Guo S, Tang Y, Zhu J, et al. Development of a CELSS Experimental Facility. Adv Space Res 2008;41(5):725–9
21	Guo S, Tang Y, Gao F, et al. Effects of low pressure and hypoxia on the growth and development of wheat. Acta Astronaut 2008;2008(63):1081–5
22	Guo S, Dong W, Ai W, et al. Research on regulating technique of material flow for 2-person and 30-day integrated CELSS test. Acta Astronaut 2014;2014 (100):140–6
23	Guo S, Weidang Ai, Jinxue Fei, et al. Kinetics characteristics of trace gases for a 2-person-30-day integrated CELSS test. Environ Sci Pollut Res 2015;22 (9):7020–4
24	Gurevich YuL, Manukovsky NS, Kovalev VS, et al. The carbon cycle in a bioregenerative life support system with a soil-like substrate. Acta Astronaut 2008;2008(63):1043–8
25	Hao Z, Li Y, Cai W, et al. Possible nutrient limiting factor in long term operation of closed aquatic ecosystem. Adv Space Res 2012;2012(49):841–9
26	Hu D, Zhou R, Sun Y, et al. Construction of closed integrative system for gases robust stabilization employing microalgae peculiarity and computer experiment. Ecol Eng 2012;2012(44):78–87
27	Hüauplik-Meusburger S, Peldszus R, Holzgethan V. Greenhouse design integration benefits for extended spaceflight. Acta Astronaut 2011;2011 (68):85–90
28	Karel M. Evaluation of Engineering Foods for Controlled Ecological Life Support Systems (CELSS). NASA-CR-166359. 1982. 166p
29	Kenn F. New concepts for the avoidance or utilization of methane in life support systems. Adv Space Res 2011;2011(48):457–64
30	Liu X, Chen M, Liu X, et al. Research on some functions of Azolla in CELSS system. Acta Astronaut 2008;2008(63):1061–6
31	Liu Y, Hu C, Liu Q, et al. Nostoc sphaeroides Kützing, an excellent candidate producer for CELSS. Adv Space Res 2011;2011(48):1565–71
32	Lobascio C, Lamantea M, Cotronei V, et al. Plant bioregenerative life supports: the Italian CAB project, Journal of Plant Interactions 2007;2007(22): 125–34
33	MacElroy RD, Bredt J. Current concepts and future directions of CELSS. Adv Space Res 1984;4(12):221–9
34	Molders K, Quinet M, Decat J, et al. Selection and hydroponic growth of potato cultivars for bioregenerative life support systems. Adv Space Res 2012;2012
35	(50):156–65 Myers J. Basic remarks on the use of plants as biological gas exchangers in a closed system. J Aviation Med 1954;25:407–11
36	Nitta K. Basic design concept of closed ecological facilities. Adv Space Res 1999;24(3):343–50
37	Ohya H, Oshima T, Nitta K. Survey of CELSS concepts and preliminary research in Japan. Adv Space Res 1984;4(12):271–7
38	Page V, Feller U. Selection and hydroponic growth of bread wheat cultivars for bioregenerative life support systems. Adv Space Res 2013;2013(52):536–46
39	Qin L, Guo S, Ai W, et al. Selection of candidate salad vegetables for controlled ecological life support system. Adv Space Res 2008;41(5):768–72
40	Salisbury FB, Gitelson JE, Lisosky GM. Bios-3: Siberian experiments in bioregenerative life support. Bioscience 1997;47:575–85
41	Skoog AI. BLSS: a contribution to future life support. Adv Space Res 1984;4 (12):251–62
42	Tang Y, Gao F, Guo S, et al. The morphology, physiology and nutritional quality of lettuce grown under hypobaria and hypoxia. Acta Astronaut 2015;2015 (112):29–36
43	Taub FB. Some ecological aspects of space biology. The American Biology teacher. Vol 25, No 6. Space Biology. Part 1 October 1963. 412-421
44	Trifonov SV, Kudenko YA, Tikhomirov AA. Prospects for using a full-scale installation for wet combustion of organic wastes in closed life support systems. Life Sci Space Res 2015;2015(7):15–21
45	Turc HA, Pintena J, Bagarri P, et al. A combined modeling and experimental approach for achieving a simplified closed ecosystem. Adv Space Res 1999;24 (3):351–60.
46	Ushakova SA, Tikhomirov AA, N Tikhomirova A, et al. A biological method of including mineralized human liquid and solid wastes into the mass exchange of bio-technical life support systems. Adv Space Res 2012;2012(50):932–40
47	Wang M, Fu Y, Liu H. Nutritional status and ion uptake response of Gynura bicolor DC. between porous-tube and traditional hydroponic growth systems. Acta Astronaut 2015;2015(113):13–21.
48	Yunze Shen, Shuangsheng Guo. Effects of photoperiod on wheat growth, development and yield in CELSS. Acta Astronaut 2014;2014(105):24–9
49	Space Omics Topical Team: Colleen S Deane, Joseph Borg, Thomas Cahill, Eugénie Carnero-Diaz, Timothy Etheridge, Gary Hardiman, Natalie Leys, Pedro Madrigal, Aránzazu Manzano, Felice Mastroleo, F Javier Medina, Manuel A Fernandez-Rojo, Keith Siew, Nathaniel J Szewczyk, Alicia Villacampa, Stephen B Walsh, Silvio Weging, Daniela Bezdan, Stefania Giacomello, Willian A da Silveira, Raúl Herranz PMID: 35265808 PMCID: PMC8898910 DOI: 10.1016/j.isci.2022.103920