1. Record Nr. UNINA9910484625603321

Autore	Ruyters Gunter
Titolo	Breakthroughs in Space Life Science Research : From Apollo 16 to the ISS / / by Günter Ruyters, Markus Braun, Katrin Maria Stang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-74022-6
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (xvii, 155 pages) : illustrations (mostly color)
Collana	SpringerBriefs in Space Life Sciences, , 2196-5579
Disciplina	571.0919
Soggetti	Medicine - Research Biology - Research Cytology Solar system Aerospace engineering Astronautics Biomedical Research Cell Biology Space Physics Aerospace Technology and Astronautics Biologia espacial Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1. Introduction: Space Life Sciences – Basic Research and Applications under Extraordinary Conditions -- Chapter 2. A Long Way for Europe and Germany: From Apollo 16 to the International Space Station ISS -- Chapter 3. Success Stories: Incremental Progress and Scientific Breakthroughs in Life Science Research -- Chapter 4. Success Stories: Innovative Developments for Biomedical Diagnostics and Preventative Health Care -- Chapter 5. Space Life Sciences in the Exploration Era: An Outlook on Future Challenges and Opportunities.-.
Sommario/riassunto	This last volume of the SpringerBriefs in Space Life Sciences series is setup in 5 main parts. The 1st part shortly summarizes the history of

	life science research in space from the late 40s until today with focus on Europe and Germany, followed by a part on describing flight opportunities including the Space Shuttle/Spacelab system and the International Space Station ISS; in the 3rd part it focuses on extraordinary success stories of this constantly challenging research program and highlights some important key findings in space life science research. The book introduces in the 4th part innovative developments in non-invasive biomedical diagnostics and training methods for astronauts that emerge from this program and are of benefit for people on Earth especially in the aging society. Last but not least in its 5th part it closes with an outlook on the future of space life sciences in the upcoming era of space exploration. The book is intended for students and research scientists in the life sciences and biomedicine as well as for interested lay persons, who wish to get an overview of space life science research: its´ early days, current status and future directions.

2.

Record Nr.	UNINA9910576875803321
Autore	Pandey Sadanand
Titolo	Advance Nanomaterials for Biosensors
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2022
Descrizione fisica	1 online resource (134 p.)
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The book provides a comprehensive overview of nanostructures and methods used to design biosensors, as well as applications for these biosensor nanotechnologies in the biological, chemical, and environmental monitoring fields. Biological sensing has proven to be an essential tool for understanding living systems, but it also has practical applications in medicine, drug discovery, food safety, environmental

monitoring, defense, personal security, etc. In healthcare, advancements in telecommunications, expert systems, and distributed diagnostics are challenging current delivery models, while robust industrial sensors enable new approaches to research and development. Experts from around the world have written five articles on topics including:Diagnosing and treating intraocular cancers such as retinoblastoma; Nanomedicine in cancer management; Engineered nanomaterials in osteosarcoma diagnosis and treatment; Practical design of nanoscale devices; Detect alkaline phosphatase quantitatively in clinical diagnosis; Progress in the area of non-enzymatic sensing of dual/multi biomolecules; Developments in non-enzymatic glucose and H2O2 (NEGH) sensing; Multi-functionalized nanocarrier therapies for targeting retinoblastoma; Galactose functionalized nanocarriers; Sensing performance, electro-catalytic mechanism, and morphology and design of electrode materials; Biosensors along with their applications and the benefits of machine learning; Innovative approaches to improve the NEGH sensitivity, selectivity, and stability in real-time applications; Challenges and solutions in the field of biosensors.