

ICS 01.040.49

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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 30114.5-2014

**Terminology for space science and applications - Part 5: Space
life sciences and biotechnology**

空间科学及其应用术语 第5部分：空间生命科学和生物技术

Issued on: December 5, 2014

Implemented on: April 1, 2015

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

GB/T 30114 "term space science and its applications" is divided into eight sections.

- Part 1. General basis;
- Part 2. Space Physics;
- Part 3. space astronomy;
- Part 4. Lunar and Planetary Science;
- Part 5. space life sciences and biotechnology;
- Part 6. Aerospace Medicine;
- Part 7. microgravity science;
- Part 8. Space Earth Science.

This section GB/T Part of 530,114.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This part of the National Standardization Technical Committee on Space Applications and Science (SAC/TC312) centralized.

This section is drafted. Beijing University of Aeronautics and Astronautics, Chinese Academy of Sciences Institute of Biophysics, Chinese Academy of Sciences Institute of Zoology, Chinese families

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Space Science and Its Application term

Part 5. space life sciences and biotechnology

1 Scope

GB/T 30114 in this section defines the space science and biotechnology fields of life requires a unified common terms and their definitions.

This section applies to space life science and biotechnology-related standards, technical documentation preparation, delivery and related technologies

Flow and engineering applications.

2 space life sciences and biotechnology generic term

2.1 Integration test integratedtest

In a plurality of integrated science subjects in the experimental system, a number of space experiments were relatively independent of each other scientific research in order

Coordination test multiple experiments, adaptive ground confirmatory research activities.

Example 1. a bio-incubator space, there are many types of multiple independent culture units, subjects with plants, animals, microorganisms, aquatic organisms, cells, tissues, etc.

Life in vivo, the use of the entire experimental system integration tests, biological activity test subjects, timeliness, and a combination unit complex biological experiments may bring Cross environment.

Example 2. A set of space material science experimental apparatus, can melt crystallization experiments metal alloys, semiconductors, ceramics and other types of non-metallic materials, conduct

Integrate and test their experiments for each intervention, control, coordinate operations and other functions, as well as cross-cutting impact.

[GB/T 30114.1-2013, the definition 4.21]

2.2 Match Test matchingtest

In order to test the experimental methods and experimental space objects in accordance with the progress of the experiment design coordination capabilities, engineering and

scientific design verification real

Test indicators, qualitative or quantitative measurement and analysis.

Example 1. space life science experiments during the preparation, loading device technology research and the study of biological samples, inoculation density, as well as gas, liquid, light

Laboratory tests, according to pilot test the optimal coordination of environmental control parameters, intervention, control, etc. undertaken.

Example 2. preparation space materials science experiments, the researchers a temperature gradient component injection speed and the experimental conditions of the study, the location of such coordination,

And laboratory tests, pilot trial intervention and control capacity undertaken.

Example 3. microgravity fluid physics experiment preparation process, the researchers set up experimental conditions, intervention and control capabilities, and the ability to observe and diagnostic testing to

And determine the optimal coordination of the experimental system and conducted laboratory experiments, pilot test.

[GB/T 30114.1-2013, the definition 4.20]

2.3 Overweight super-gravity

Object in strong gravitational field when done or objects contained accelerated motion, showing the state of constant weight above the ground when gravity.

[GB/T 30114.1-2013, the definition 3.20]

2.4 Microgravity microgravityenvironment

Microgravity microgravitycondition

Microgravity microgravity