multi gas incubator system for anaerobic hypoxic and co2

The multi-gas incubator system is capable of constructing 0% oxygen, 6% oxygen or user-defined composite gas environment through precise regulation of oxygen, carbon dioxide and other gases.

Multi-gas incubator system is suitable for anaerobic bacteria, microaerobic bacteria and cell culture, metabolic research and physiological characteristics observation.

Features of Multi-Gas Incubator System

1. can set any proportion of oxygen (0-21%) and carbon dioxide (0-20%) concentration
2. Built-in touch control system, clear operation interface and convenient parameter adjustment
3. equipped with a variety of specifications of the culture tank and fixture, compatible with different forms of culture
4. Support programmed setting, improve the repeatability and efficiency of the experiment.

5. with vacuum adjustment, decompression protection, real-time printing and other auxiliary functions

Advantages

1. Controllable environment: support dynamic adjustment of a variety of gas concentrations, suitable for different experimental needs.
2. Integrated design: integrating control, cultivation, and monitoring, with small footprint and complete functions.
3. Multi-culture support: can simultaneously carry out multiple types of petri dishes, campylobacter, cells, identification strips and other culture
4. accurate record and traceability: printing module and data software module, easy to experiment management.

Working Principle of Multi-Gas Incubator System

Based on the closed culture chamber, the built-in gas mixing control unit precisely adjusts the input ratio of oxygen, carbon dioxide and nitrogen to form the required gas environment. Combined with vacuum pumping and palladium catalyst, residual oxygen can be effectively removed to establish a pure anaerobic or low oxygen state. The built-in program module can automatically set up gas switching, vacuum adjustment and other processes, making the experimental operation standardized and efficient.

Application Fields

1. medical microbiology: anaerobic bacteria, microaerobic bacteria (such as clostridium, campylobacter) culture and detection
2. Biopharmaceuticals: for the production of anaerobic vaccine strains and toxicity studies
3. Environmental microbiology: study of microbial metabolism in low oxygen ecosystems.
4. Cell biology and cancer research: to study cellular stress response under low oxygen or high CO_2 conditions.
5. Food fermentation engineering: for the study of fermentation efficiency of lactic acid bacteria, yeast, etc. under specific atmosphere

Working Conditions

1. Operating temperature range: 10°C to 35°C, avoid direct sunlight, clean and dust-free environment.
2. Relative humidity: 20% to 80%.
3. power requirements: AC 220V ± 10%, frequency 50Hz ± 1Hz

Main Configuration

1. host (including color touch screen and control program) x1.
2. Programmable Gas Setting Module (Oxygen Concentration, Gas Ratio, Vacuum Level) x1.
3. System control module + Campylobacter culture chip + QC software x1.
4. 2.5L culture jar (for 12 90mm dishes) x4.
5. Stainless steel petri dish basket (90/100mm x12) x4.
6. Special culture tank for Campylobacter x1.
7. Microbial identification of special culture tank x1.
8. Multi-functional fixture (can put 4 pieces of enzyme labeling plate/cell plate/identification strip) x1.
9. Palladium particle catalyst x6 boxes.
10. Built-in pressure-reducing valve assembly (including left, right and turn interface) x1 set.
11. Built-in printer x1 set.