

Declaration

If there is any dissent of the report, the entrusting party received the report should notify our center within 15 days. The microbiology test doesn't repeat.

The category of tests: common commission, identified commission, inspective commission, judicial commission.

We are only responsible for the received Sample.

The report is regarded invalid without the signature of the certifier, the special inspection stamp of our center and the stamp of our center. The report can't be copied partly or advertised. And the copy is invalid without the special inspection stamp of our center and the stamp of our center.

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Simulate on-site disinfection effect

equipment

1. Test strain: Staphylococcus albicans 8032 General Microbiology Center of China Microbial Strains Preservation and Management Commission, the lyophilization tube was released, and the 5th generation oblique culture was made for use.
2. Aerosol generator for bacteria infection: Collison CN-6E
3. Aerosol volume: 2 () maggots.
4. Disinfection equipment: KADA brand JT-Y-100FX ultraviolet negative ion air sterilizer, the disinfection factor is ultraviolet, the period is November 15, 2019.
5. Microbiological sampler: Thermo 1531 107B-G289X.
6. Sampling plate: 9 cm in diameter, poured with nutrient agar.

method

1. Inspection basis: 2.1.3.4 of the "Disinfection Technical Specification" (2002 edition) of the Ministry of Health.
2. During the test, the temperature in the aerosol chamber was 21C to 22 ° C, and the relative humidity was 57% to 60%.
3. Spraying pressure 1. 5kg / cm², spraying time 1. 5min.
4. Disinfection method: the prototype is placed on the ground at a diagonal corner of the aerosol chamber. According to the requirements of the manual, the high-end air volume model is used ("Negative ion" is off), conduct 3 disinfection tests.
4. Sampling method: adjust the flow rate of the microbial sampler to 28.3 L / min, the sample grinding time of the control group and the sample group is 10s, the sample group sampling time after the prototype works is 5min, and the sample point is located in the aerosol After the sample is collected at the center of the chamber and at a height of 1 sample, the plate and the unused agar plate of the same batch are placed in a 37 ° C incubator and incubated for 48 hours

result

The results of the third experiment of agriculture showed that the prototype was

operated with high-grade air volume ("negative ion" closed) for 120 minutes, and the 2 (model

The killing rate of staphylococcus albicans sprayed in the air of the laboratory is 99.99%, at this time, the natural staphylococcus albicans respectively 14.03%> 13.48%, 12.86%

Result of simulation field test of air disinfection by ultraviolet anion air disinfectant

Test No.	Action time (high-end air volume, minus ion not open min)	Contrast group		test group	
		Surviving (cfu/m ³)	Natural decay rate (%)	Surviving (cfu/m ³)	Kill rate (%)
1	0.0	2.28X10 ⁵	-	2.36X10 ⁵	
	60.0	2.11X10 ⁵	7.25	1.70X10 ²	99.92
	120.0	1.96X10 ⁵	14.03	28	99.99
2	0.0	2.34X10 ⁵	—	2.16X10 ⁵	
	60.0	2.17X10 ⁵	7.51	1.41X10 ²	99.93
	120.0	2.03X10 ⁵	13.48	22	99.99
3	0.0	2.37X10 ⁵		2.64X10 ⁵	
	60.0	2.17X10 ⁵	8.39	2.19X10 ²	99.90
	120.0	2.07X10 ⁵	12.86	22	99.99

The negative control of each test was aseptically grown.

Conclusion

The results of the three tests showed that the prototype was operated with high-grade air volume ("negative ion" closed) for 120 min, and the kill rate of Staphylococcus albicans sprayed in the air of a 20m³ closed simulated laboratory was 99. The natural decay rates of Staphylococcus were 14.03%, 13.48%, and 12.86%, respectively.

On-site disinfection effect (air)

Equipment

1. Disinfection equipment: KADA brand JT-Y-100FX ultraviolet negative ion air sterilizer, the disinfection factor is ultraviolet, and the production date is November 15, 2019.
2. Microbial sampler: Thermo 1531 107B-G289X type.
3. Sampling plate: 9 cm in diameter, poured with nutrient agar.
4. Test site: closed laboratory with a volume of 100m³ (4.7mX7.9mX2.7m).

method

1. Inspection basis: 2.1.3.5 of the "Disinfection Technical Specification" (2002 edition) of the Ministry of Health.
2. Disinfection method: the prototype is placed at the corner of the diagonal line of the closed laboratory to carry out the disinfection test.
3. Sampling method: adjust the flow rate of the microbial sampler to 28.3L / min, the 5 sampling points are evenly distributed in the laboratory at a height of 1m, and the sampling time is 5min. After sampling, the dishes together with the unused agar plates of the same batch were placed in a 37C incubator and incubated for 48 hours.
4. The experimental environment temperature is 18C ~ 19C, and the relative humidity is 40%

~ 45%.

result

The results of three tests showed that under the conditions of 18C ~ 19C and relative humidity of 40% ~ 45%, the prototype was operated with high-grade air volume ("negative ion" off) for 120 minutes, and the rate of natural bacteria in 100n? Closed indoor air was respectively 98.88%, 8.84%, 98.64%

Field test results of air disinfection by ultraviolet anion air disinfectors

No Anion	No.	Bacteria before Disinfection(cf/m3)	Bacteria before disinfection(cf/m3)	Demise rate (%)
	1	1.01*10³	11	98.88
120	2	8.54*10²	10	98.84
	3	1.04*10³	14	98.64

Each test negative control is aseptically grown

conclusion

The results of three tests showed that the prototype was operated with high-end air volume ("negative ion" closed) for 120 minutes, and the decay rates of natural bacteria in 1003 enclosed indoor air were 98.88%, 98.84%, and 98.64%, respectively.