ORIST

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REPORT

Number of Issuance: 0485
Date of Issuance: June 20th, 2019
Applicant
Name: UES (Ueda Environmental Solutions) Co., Ltd
Address: 2-1-24 Kumanocho Higashi, Sakai-ku, Sakai-shi, Osaka
Description: Determination of antimicrobial activity of a test item by Halo Method

Sample: Copper catalytic activated carbon
The test item presented by the applicant was discal, and attached black powder to one side.

TEST method:
We referred to JIS L 1902:2015 (Halo Method), and tested by the following methods.

(a) Microorganism
Candida albicans NBRC1594

(b) Cultivation
The microorganism was cultured in YM medium overnight at 27 ℃ with shaking.

YM medium	
Glucose	10 g
Peptone	5 g
Yeast extract	3 g
Malt extract	3 g
Water	1000 g

(c) Preparation of the plate inoculated with the microorganism, and measurement of width of the halo
The cultivated microorganism strain was diluted to ca. 5×10^6 cfu/mL with physiological saline, its 1 mL was put in petri dish (ϕ 9 cm). After autoclaving of YM medium (100 mL) containing 1.5 g of agar, the medium was cooled down to 50 ℃. Fifteen milliliter of the medium was put in the petri dish, and stirred to mix the cells and the medium. The mixture was cooled, and solidified to prepare the test agar plate. After drying the surface of the agar plate, the test item was put on it to stick the black powder side on. The presence of halo was checked, and the width of halo was measured after 24 h incubation at 27 ℃.

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Results:

Presence of a halo after 24 h at 27 ℃ in the agar plate was listed in Table 1 and shown in Fig. 1.

Table 1 Presence of halo, and its width

Name of test item	Microorganism	Presence of halo (width)
Copper catalytic activated carbon	*Candida albicans*	Visible (2.6 mm)

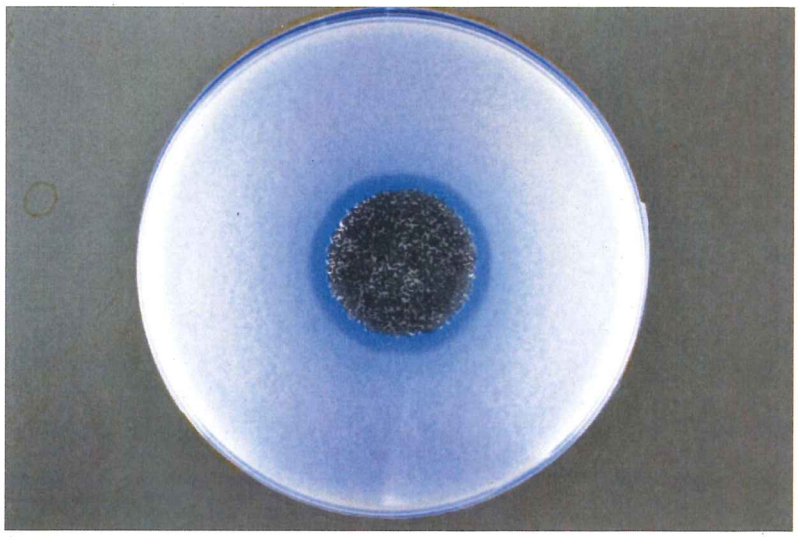

Fig. 1 Photograph of Copper catalytic activated carbon attached to the agar plate (after 24 h incubation at 27 ℃)

Masami Nakamoto

Dr. Masami Nakamoto
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