



**Acron International Technology Limited**

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## **Air Cleaner Test Report**

Applicant : RHT Industries Limited

Address : Block B, 2/F, Goodwill Industrial Building, No. 36-44 Pak Tin Par  
Street, Tsuen Wan, New Territories, Hong Kong

Report Number : REPAP19041801

Report Issue Date : 18 Apr 2019

Total Page : 6 Pages (including this page)

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**Acron International Technology Limited**  
*IAQ Contractor; IAQ Control Facilities Supplier; IAQ Consultant*  
*Subsidiary company of the Hong Kong University of Science and Technology*  
*Under the Entrepreneurship Program*

## 1. Sample Description

Product : Air Cleaner  
Brand Name : b-MOLA  
Model No. : NCCO1701  
No. of Sample Received : 1  
Test Date : 27 Mar 2019 – 27 Mar 2019  
Test Item(s) : Pollutants Removal Efficiency  
Test Reference(s) : In-house method SOP200 (for VOC removal rate)  
Test Result : See the attached sheets  
Remark : N/A

## 2. Detail Description of the sample



**b-MOLA/NCCO1701**



**NCCO Filter and HEPA**

### 3. Results of Removal Efficiency for Chemical Pollutant

Brand / Model No.	Operating Mode	Test Chemical	Initial Concentration	Removal Efficiency (%)
b-MOLA/NCCO1701	SS	Acetic Acid	100.7 ppm	>99.9

Remark: Initial concentration is set within  $100 \pm 10$  ppm.

In a  $1\text{m}^3$  chamber, chemical was injected into the chamber by a syringe and evaporated by a hot plate. Internal circulation was turned on throughout the test to ensure the uniformity of chemical concentration inside the chamber. Initial concentration ( $C_0$ ) of the chemical was recorded before switching on the air cleaner with a range of  $100 (\pm 10)$  ppm. Then, the air cleaner is switched on for 60 minutes and the chemical concentration was recorded as  $C_{60}$ , the final concentration of chemical.

The test was repeated again without the air cleaner to determine the natural decay of the chemical at the test chamber. Chemical was injected into the chamber by a syringe and evaporated by a hot plate with an initial concentration ( $C_{N0}$ ). The final concentration ( $C_{N60}$ ) was determined 60 minutes later

New filters and HEPA have been used for each chemical test.

Calculation:

$$A_1 = \frac{C_0 - C_{60}}{C_0}$$

$$A_2 = \frac{C_{N0} - C_{N60}}{C_{N0}}$$

$$\text{Removal Efficiency} = \frac{C_0(1 - A_2) - C_{60}}{C_0(1 - A_2)}$$

\*\*\*End of Report\*\*\*