



Acron International Technology Limited

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HKUST Entrepreneur

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

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1. Sample Description

Product : Air Cleaner

Brand Name : b-MOLA

Model No. : MOLA10

No. of Sample Received : 1

Test Date : 20 Mar 2020 – 20 Mar 2020

Test Item(s) : Pollutants Removal Efficiency

Test Requested : VOC (Ethylbenzene)

Test Reference(s) : In-house method SOP-200 (for VOC removal rate)

Test Equipment : Honeywell instrument ppbRAE 3000

Equipment no. : E002 – 002

Test Result : See the attached sheets

Remark : Client claimed that model MOLA10 same as
NCCO1804/IA10/BM10 in terms of power, parts, components
and structures. Only different is the selling platform.

2. Detail Description of the sample



b-MOLA/MOLA10

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NCCO Reactor (NA213020300) and Normal White HEPA

3. Testing Method of Removal Efficiency

In a 0.027m³ chamber, chemical pollutant 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 pollutant concentration inside the chamber. Initial concentration (C_0) of the chemical pollutant was recorded before switching on the air cleaner with a fixed volume of VOC pollutant. Then, the air cleaner is switched on for 60 minutes and the chemical concentration was recorded as C_{60} , the final concentration of chemical.

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

4. Results of Removal Efficiency

| Brand/ Model No. | Operation Mode | Test Chemical |
|------------------|-----------------|--------------------|
| b-MOLA/MOLA10 | Blue Light Mode | VOC (Ethylbenzene) |

| Initial Concentration (ppm) | Total Decay, k_e (min^{-1}) | Removal Efficiency (%) |
|--------------------------------|---------------------------------------------|---------------------------|
| 117.50 | 0.0367 | 90 |

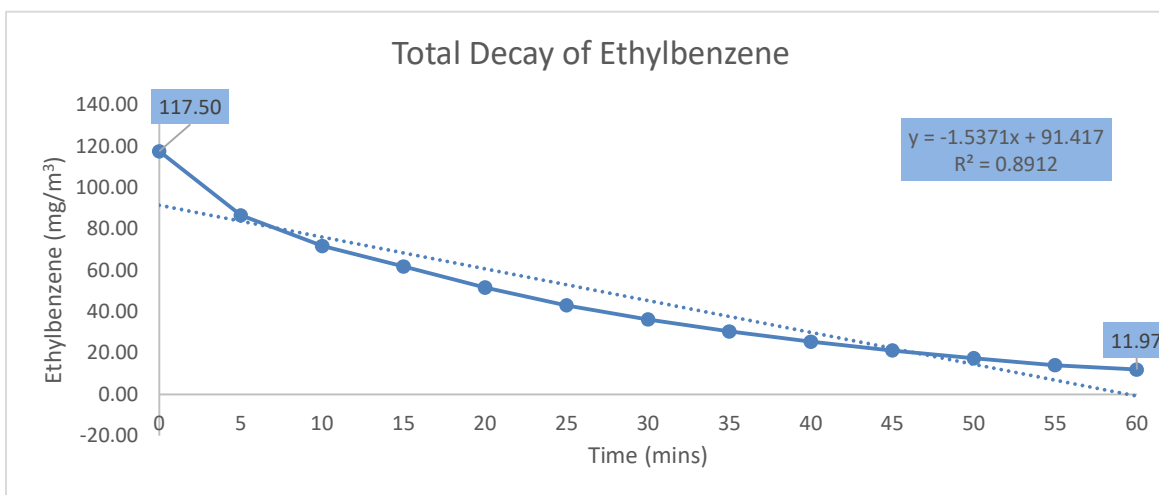


Figure a. Total Decay of VOC (Ethylbenzene)

Calculation:

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

A₁: Removal Efficiency (%)

C: Concentration of testing subject (ppm)

End of Report