

**Wexis**

# **NCCO Air Purifier for the Pathology Laboratory**

**Say NO to Toxic Gases and Odours**



# The Present Situation of Air Pollution in the Pathology Laboratory

Pathologists and laboratory workers are always exposed to high concentrations of Volatile Organic Compounds (VOCs) in their working environment. These VOCs have been proven to be poisonous and harmful to the human nervous system, liver, kidney and blood.

1. Pathologists and technicians take samples from a variety of organs, tissues, blood and other fluids every day. They are not only heavily irritated with tears from their eyes, also facing the risks of being infected by risky pathogens from the tissue samples.
2. Common reagents used routinely are formalin, xylene, DAB which have a pungent odours and also are toxic to the human body.
3. Alcohol, acetone and other offensive fluids that give off irritating odours which pollute air in our environment.

## Formaldehyde

### Formaldehyde

- Is a colorless liquid with a strong pungent odor, highly volatile at room temperature
- Cause the eye burning, tearing, blurred vision, runny nose, sneezing and serious cough
- Skin contact with formaldehyde solution often turn yellowing, thickening, and even lead to dermatitis
- Long-term exposure to formaldehyde can also cause infertility, pregnancy syndrome
- Is a carcinogen, not only can lead to naso-pharyngeal carcinoma, but also cause leukemia

- Is a fragrant colorless liquid, highly volatile and has a strong toxicity
- Absorption mainly through the skin and respiratory mucosa, there may be irritation of the eyes and upper respiratory mucosa symptoms, and skin contact can lead to dermatitis
- Long-term exposure can affect the central nervous system disorders, headache, dizziness, fatigue, nausea and other clinical symptoms

### Xylene

## Xylene

## DAB

### DAB

- Diaminobenzidine (DAB) is the most commonly used chromogenic substrate for immunohistochemistry. DAB can enter the body through the respiratory tract and skin. After long-term exposure to DAB cause bladder cancer

- TVOC can be odor, irritant, and some compounds with genotoxicity. It cause immune imbalance, affect the central nervous system function, dizziness, headache, drowsiness, weakness, chest tightness and other symptoms. May also affect the digestive system, loss of appetite, nausea, etc., severe liver and hematopoietic system can be damaged, there allergy, infertility and so on.

### TVOC

## TVOC

Global patented technology developed by Hong Kong University of Science and Technology (HKUST).

Experience a superb level of decomposition and purification of VOCS thus providing you with a clean and odourless environment.

No further consumables required, thus NO additional expenditure.

## NCCO Air Purifier

NCCO is a technology for the sustainable treatment of air pollution, it uses catalytic material to adsorb certain molecules, while excluding others. The oxidants generated by the system will in turn decompose the pollutants into non-harmful products such as water molecules and carbon dioxide, and achieve a high removal efficiency of higher than 90%.



### Stands for nano

Catalytic material with nano-sized cavities. It is non-harmful and recyclable.



### Stands for confined

The catalytic material is able to adsorb certain molecules, while excluding others. This can result in efficient removal of certain types of pollutants from the environment.



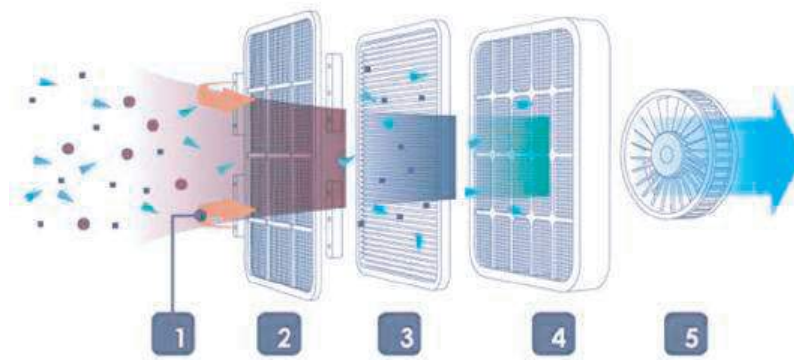
### Stands for catalytic

There are transition metals impregnated within the porous structure of our catalytic material. The transition metals can act as catalysts to enhance the reaction rate between the gaseous contaminants and oxidants.



### Stands for oxidation

Active oxygen is generated and it is able to oxidize gaseous contaminants into non-harmful products such as water molecules and carbon dioxide, which will leave the catalytic material and regenerate another site for adsorption of pollutant

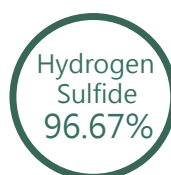
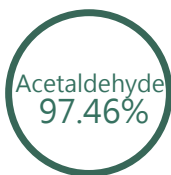


## NCCO FILTRATION SYSTEM

- 1 Pre-filter Filter out normal duct
- 2 HEPA Filter Captures bacteria & small particulates
- 3 Active Oxygen Generator, remove bad odors & virus in the all related filters
- 4 Nano Filter Decomposes the harmful gas & bad odors
- 5 Exhaust fan accelerates the air purification process & emits fresh air

- Five-layer of treatment system, remove pollutants continuously.
- Decomposition of aldehydes, benzene, phenols, alcohols and other harmful gases
- Reaction materials will not be consumed and recyclable
- No consumables required. No additional expenses.

## Removal rate<sup>1</sup>



1 Experimental conditions: ● 1 m3 chamber ● Testing time 1 hour

2 According to the requirements of "Code for indoor environmental pollution control of civil building" GB 50325—2010

Formaldehyde ≤ 0.08 mg/m<sup>3</sup>

Benzene ≤ 0.09 mg/m<sup>3</sup>

TVOC ≤ 0.5 mg/m<sup>3</sup>

## Regulatory Conformity



## Safety Certifications:

EMC Directive: EN 55041-1; EN 61000-3-2; EN 61000-3-3; EN 55014-2

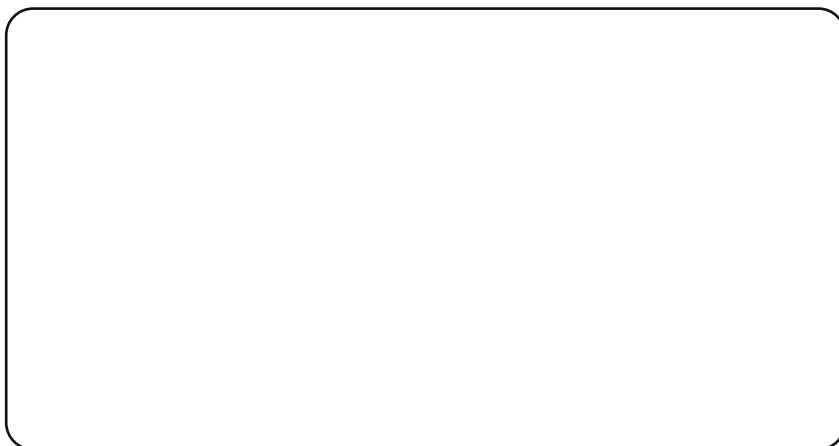
Low Voltage Directive: EN 60335-1; EN 60335-2-65; EN 62233

## Order Information

Model	WB-EC400 (Ceiling)
Order No.	310-400
Dimensions(L*W*H)	580*580*215mm
Weight	21Kg
Line-in(Voltage)	AC220V~240V
Power Rating	60~80W
Processing Area	20~30m <sup>2</sup>



WB-RA801 (Mobile)
310-801
637*284*261mm
11.6Kg
AC220V~240V
60~80W
10~20m <sup>2</sup>



# Wexis

Head Office: Wexis Group Limited  
Address: Unit1611, 16/FI, Yuen Long  
Trading Centre, 33 Wang Yip  
Street, Yuen Long, NT,  
Hong Kong

Tel: 852-2567 2882  
Fax: 852-2567 6333

China Office: Guangzhou Wexis Biotech Limited  
Address: No.4 of Yin Sha Road 2,  
Wexis Industrial Park, Xin Tang  
Sha Pu, Zeng Cheng District,  
Guangzhou, P.R, China

Zip-Code: 511338  
Tel: 8620-8779 3718



Wechat QR code

Website: [www.wexisgp.com](http://www.wexisgp.com)  
Email: [marketing@wexisgp.com](mailto:marketing@wexisgp.com)