



Hue Light

IMMUNITY CARE SYSTEMS

H-2000

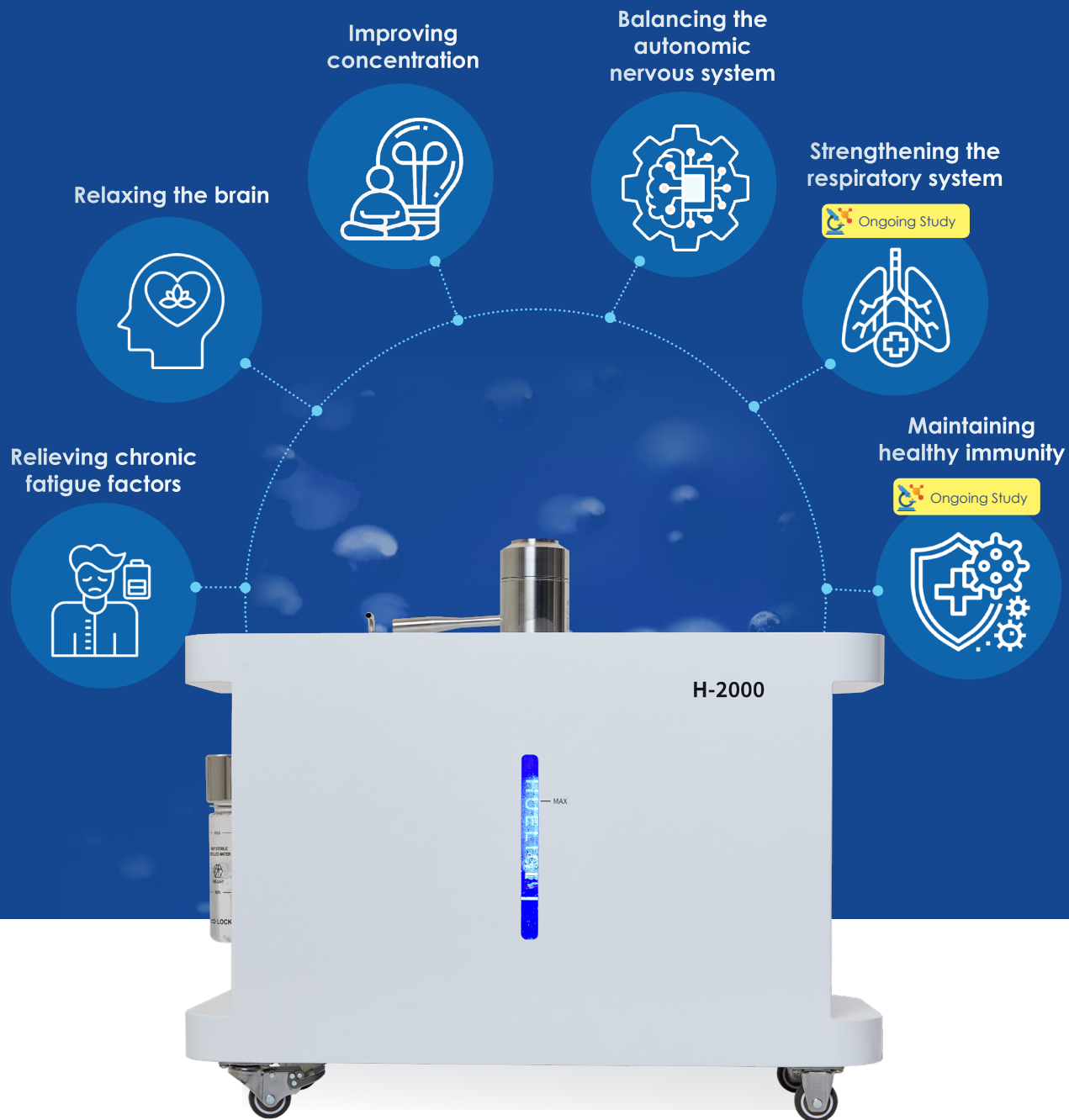
Molecular Hydrogen Inhalation Device

Highly concentrated & 99.97% pure for your wellness

2170cc
per
minute

POWERFUL
Antioxidant
Effect





Exporting to hospitals in more than **20 countries**
including the United States and Europe



U.S. FDA



KC



CE



RoHS



Medical Devices QMS

H-2000

Reliable and Safe Solution to your health.

Just add sterile distilled water.

ZERO additives required.



National Accredited Agency Test Report

Gas flow rate & generated components and amount analysis test

Verification No. (원본확인번호) 2905-8204-0979-6639
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Report No.: 2021-01361-001 Page 1 / 3 Pages

TEST REPORT

Applicant: Hue Light Co., Ltd.
60, Haeam-ro, Gwanggyang-gu, Gyeonggi-do
Test Item: Molecular Hydrogen Inhalation Device
• **Manufacturer & Model:** Hue Light Co., Ltd. / H-2000
• **Serial No.:** HLJ2-22-003
Date of Receipt: 21 December 2022 **Date of Test:** 26 January 2023

Description of Test
• **Test Name:** Gas analysis
• **Test Site:** ☒ KRISS Lab ☐ Mobile Lab ☐ On-site

• **Environmental Conditions**
- **Temperature:** 20 ~ 22 °C - **Relative Humidity:** 40 ~ 60 %
• **Test Method:**
Test Procedure of Mixture and Pure Gas Measurement with Gas MFC(T-02-030-2000)
Test procedure of purity analysis of raw material(T-02-035-2017)
• **Test Results:**
Refer to the "TEST RESULTS" on the next page(s).
• **Measurement Uncertainty:**
Refer to the "TEST RESULTS" on the next page(s).

General Information
- This certificate shall not be modified, partially reproduced or used in an advertisement or product promotion without the written approval of KRISS. Otherwise the legal action may be taken against violation.
- This above results are valid only for the sample provided by the applicant, and the name of the sample is provided by the applicant.

• **Tested by:** Lee, Jin Bok
• **Date of Issue:** 28 January 2023
• **Approved by:** Jung, Jin Sang
President of KRISS

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H₂
O₂

67.38 cmol/mol⁽¹⁾, Relative expanded uncertainty (k=2): 0.5 %
32.44 cmol/mol, Relative expanded uncertainty (k=2): 1 %

1. **request - Subject**
Hue Light Corp. requested to measuring the concentrations of the hydrogen, oxygen gas, impurities and the flow rate of the gas from a Molecular Hydrogen Inhalation Device (this is referred to as a "Test sample").

2. **Principles of the test sample device**
The test sample is a device that electrolysis water to generate hydrogen and oxygen gas. It is discharged through one water trap without separating the generated hydrogen and oxygen gas (also called brown gas).

3. **Product specifications**
(1) Device name: Molecular Hydrogen Inhalation Device
(2) Model No.: H-2000
(3) S/N: HLJ2-22-003

4. **Test procedure**
(1) Test sample were installed at KRISS laboratory (Fig. 1).
(2) A sampling kit and a 10 L sampling bag were installed at the outlet to collect the gas generated from the Test sample.
(3) After operating the Test sample for about 5 hours or more, the generated gas was collected in

Components	Test results
H ₂	67.38 cmol/mol ⁽¹⁾ , Relative expanded uncertainty (k=2): 0.5 %
O ₂	32.44 cmol/mol, Relative expanded uncertainty (k=2): 1 %
N ₂	0.18 cmol/mol, Relative expanded uncertainty (k=2): 5 %
Ar	79.2 μmol/mol ⁽²⁾ , Relative expanded uncertainty (k=2): 10 %
CH ₄	N.D. ⁽²⁾ (Detection limit : 0.2 μmol/mol)
CO	0.02 μmol/mol, Relative expanded uncertainty (k=2): 50 %
CO ₂	13.2 μmol/mol, Relative expanded uncertainty (k=2): 3 %
THC(C ₂ -C ₆)	N.D.(Detection limit : 0.3 μmol/mol)
Flow rate	2.17 L/min, Relative expanded uncertainty (k=2): 3 %

6. Analytical instruments: Gas-MQMAT 271, GC-FID/FID-methanator, Sampling kit, sampling bag, Integrated flowmeter(Shinagawa W-NK-0.5A)
7. The measured value of the gas component is the mole fraction excluding water.
8. cmol/mol⁽¹⁾ and μmol/mol⁽²⁾ can be expressed as % and ppm, respectively.

Flow rate

2.17 L/min, Relative expanded uncertainty (k=2): 3 %



Fig. 1 Equipment configuration installed in KRISS at Hue Light Co., Ltd.
(Continue to page 3)

12. CAUTION! AVOID ignition sources (fire, static electricity, etc.) at the inlet of the gas outlet of this test product (hydrogen generator). If an ignition source occurs, it may cause sparks or ignition. Therefore, when using the equipment, avoid a completely enclosed space and attention must be paid to the safety of the ignition sources.
13. This test result is issued at the given date. KRISS is not responsible for any change of the sample since the issued date. This test result is valid just for the given item.
14. This test report is no valid if it is copied.
(End of the Results).

The amount of Hydrogen and Oxygen produced per minute (ratio): 2,170 CC (67.38% H₂/32.44% O₂)



3 Basic Facts about Molecular Hydrogen



Hydrogen is naturally a gas.

Molecular hydrogen (H_2) has two protons and two electrons, making it a neutral atom.



It has a natural property to spread and expand quickly.



It is the smallest molecule that can penetrate even through the bones and muscles.

Hydrogen being the first element in the periodic table, Hydrogen is the only molecule small enough to penetrate through the brain barriers.

Safe Hydrogen Inhalation Device

Our H-2000 releases the gas as soon as it is generated, not storing any gas in the device. **So, there is no risk of explosion**. But always use the device with **caution** and **never** ignite a cigarette, lighter, candles or any fire igniting devices in front of the gas opening during the operation.



Product Specifications

Device: Hydrogen Inhalation Device

Model: H-2000

Generated gas: H₂ (1,447cc/min) O₂ (723cc/min) Total: 2,170cc/min

Purity: >99.99%

Power: 1 bar; 960W; 110-240V

Weight: 28 kg

Dimension: 620mm (L) x 525mm (H) x 230mm (W)

Water tank capacity: Sterile distilled water, 2L

Operational condition: Indoor 5-45 C; <80% humidity

Max time setting: 5 Hrs 50 min (continuous operation)

Manufacturer: Hue Light Co. Ltd. (100% Made in Korea)

Daily Hydrogen Inhalation Therapy for the whole family

While Working

Enhances the overall work performance by maximizing efficiency and brain functions

Relieves chronic fatigues caused from accumulated stress



When your immune system is weak

Restores and balances the immune system to fight respiratory diseases, rhinitis, autoimmune diseases and other chronic diseases

Prevent and Recover from COVID-19 and other virus-caused illnesses.

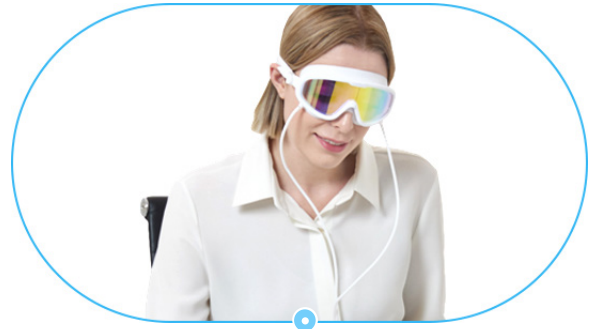


Highly recommended for:



People who would like to experience faster results

Experience immediate effects with large generated gas capacity



People who would like to moisten their dry eyes

Eye-care goggles allow people with eye health concerns to treat their eyes with hydrogen

More **HYDROGEN** intake, better the **OUTCOME**

* Clinically proven effects but may vary by individuals



While Sleeping

For a quality sleep



While Studying

Improves overall performance of the brain functions including increased concentration, learning capacity, memory and field of vision and balance.

Relieves stress

Strengthens immunity



Patients who need high concentrations of hydrogen and oxygen inhalation

Patients can now enjoy daily high-concentration hydrogen inhalation therapy conveniently at home to treat their symptoms

Recommended

Hydrogen inhalation therapy and whole-body PBM therapy for maximum proven results

For more information on PBM therapy, visit www.huelight.kr

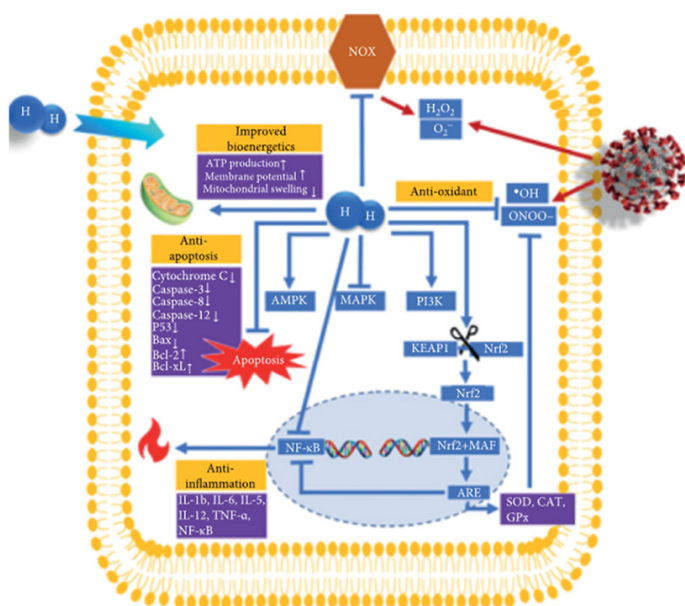




Hydrogen Inhalation Therapy on COVID-19

From 2019, increasing number of studies have shown the effect of hydrogen inhalation therapy for the prevention and treatment of COVID-19.

Mechanism



Possible mechanisms of alleviation properties of molecular hydrogen on COVID-19 patients.

Reactive Oxygen Species (oxidative stress & inflammation) due to COVID-19 virus - OH·: hydroxyl radical; O₂⁻: superoxide anion; ONOO⁻: peroxynitrite anion; H₂O₂: hydrogen peroxide; H₂: molecular hydrogen; NOX: nicotinamide adenine dinucleotide phosphate (NADPH) oxidase; AMPK: 5 adenosine monophosphate- (AMP-) activated protein kinase; MAPK: mitogen-activated protein kinase; PI3K: phosphatidylinositol 3-kinase; Keap1: Kelch-like ECH-associated protein 1; Nrf2: nuclear factor erythroid 2-related factor 2; MAF: small MAF protein; ARE: Nrf2-antioxidant response element; SOD: superoxide dismutase; CAT: catalase; GPx: glutathione peroxidase; P53: tumor protein; Bax: BCL2-associated X protein; Bcl-2: B-cell lymphoma 2 protein; Bcl-XL: B-cell lymphoma-extra-large protein; IL-12: interleukin 12; IL-1β: interleukin 1-beta; IL-6: interleukin 6; IL-8: interleukin 8; TNF-α: tumor necrosis factor α; NF-κB: nuclear factor-kappa-light-chain-enhancer of activated B cells.

01

Hydrogen/oxygen mixed gas inhalation improves disease severity and dyspnea in patients with Coronavirus disease 2019 in a recent multi-center, open-label clinical trial

Wei-Jie Guan, Chun-Hua Wei, Ai-Lan Chen, Xiao-Cong Sun, Guang-Yun Guo, Xu Zou, Jin-Dong Shi, Pei-Zhen Lai, Ze-Guang Zheng, and Nan-Shan Zhong (2020)

Inhalation of hydrogen/oxygen mixed gas (H₂-O₂) might have a role in the treatment of COVID-19 given the decreased resistance compared with room air when passing through the airways.

02

Hydrogen Therapy in Patients With Moderate Covid-19 (H2Covid)

University Hospital, Grenoble (2021)

The aim of this study is to evaluate the safety and the Dose Limiting Toxicity (DLT) of hydrogen therapy delivered by a nasal cannula in addition to conventional oxygen therapy in patients with moderate Covid-19.

COVID-19

03

Combating Oxidative Stress and Inflammation in COVID-19 by Molecular Hydrogen Therapy: Mechanisms and Perspectives

Duried Alwazeer, Franky Fuh-Ching Liu, Xiao Yu Wu, and Tyler W. LeBaron (2021)

H₂ has been demonstrated to suppress NF-κB inflammatory signaling and induce the Nrf2/Keap1 antioxidant pathway, as well as to improve mitochondrial function and enhance cellular bioenergetics. Many preclinical and clinical studies have demonstrated the beneficial effects of H₂ in varying diseases, including COVID-19.

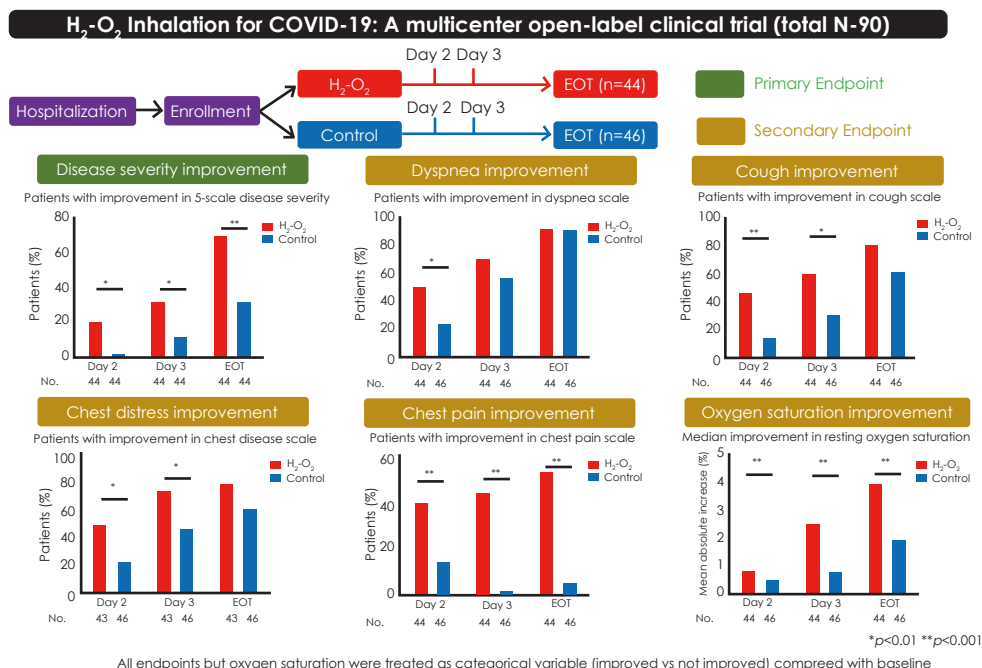
04

Hydrogen: A Potential New Adjuvant Therapy for COVID-19 Patients

Fuxun Yang, Ruiming Yue, Xiaoxiu Luo, Rongan Liu, and Xiaobo Huang (2020)

Molecular hydrogen treatment has the potential to become a new adjuvant therapy for COVID-19, but its efficacy and safety require large clinical trials and further confirmation.

CLINICAL TEST RESULTS



Product Features



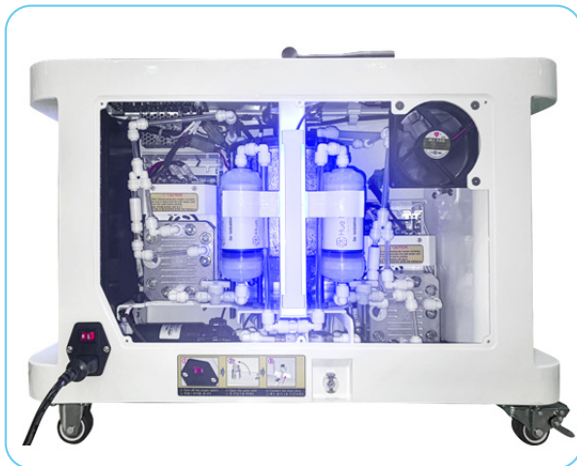
Accessible for home, clinics and hospitals

Convenient and portable with wheels
with a standard power outlet



Low Maintenance Cost-efficient

No need for cleaning
Only requires purified distilled water



High Quality Safe & Durable

All parts can be easily replaceable
without any special tools if necessary



Easy to Operate All in one screen

User-friendly control panel
for anyone



Hue Light

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