OZONE MODULE

ON DEMAND OZONE GENERATION FOR CHEMICAL OR DISINFECTIONING PURPOSES

The Ozone Module™ provides a safe and efficient way of generating ozone from oxygen with the oxygen amount precisely controlled through the built-in mass flow controller. This system can also be used as a powerful and compact standalone ozonizer. The Ozone Module™ will need an oxygen generator such as a cylinder to operate.

Ozone production:	Up to 14% (at 20 NmL/min O_2 flow rate)
Ozone concentration:	10-16% (volume) depending on O_2 flow rate and cell temperature
Pressure range:	Atmospheric to 6 bar
Temperature range:	Room temperature
Oxygen flow rate range:	1 mL/min to 100 mL/min, 1 mL/min step setting option
Productivity range:	mg – kg scale, depending on the chemical reaction

Our company has the widest portfolio of continuous flow reactors for various markets. Our award-winning H-Cube® and the technologies based on this innovation are used in hundreds of laboratories globally and have become the new industry standard for hydrogenation.

Please visit our website for more information at **www.thalesnano.com**

OZONE MODULE

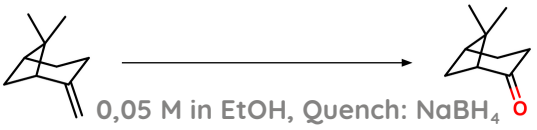
THALESNano

BENEFITS OF DISINFECTIONING WITH OZONE

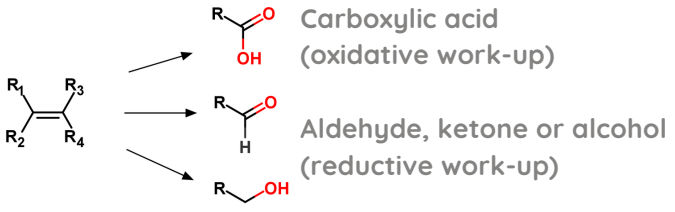
Ozone is a commonly used disinfectant around the world, for several reasons:

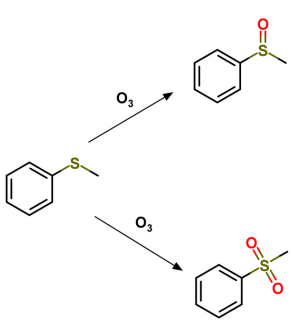
- Ozone is useful for the destruction of bacteria, viruses, yeast, molds, cysts, mildew, and most other organic and inorganic contaminants. There is no resistance build-up as well.
- Ozone requires short contact time and low dosage to be effective.
- Ozone leaves no unpleasant smells, flavours, chemicals or residual toxins. All residual ozone convert to oxigen naturally within a short time
- Ozone's effectiveness can be measured with an Oxidation Reduction Potential sensor
- Ozone can be generated on site and does not require storage
- Ozone has better penetration capacity for disinfecting materials like textile than chlorine
- Ozone has proven to be effective in air decontamination against SARS coronavirus. [Ozone Disinfection of SARS-Contaiminated Areas Kenneth K. K. LAM B.Sc. (Hons), M. Phil. Enviro Labs Limited, 611 Hong Leong Plaza, 33 Lok Yip Road, Fanling, HONG KONG]

Chemical reaction examples:



100% conversation
83% selectivity





84% isol. yield
1.) 1mL/min, MeOH, RT
2.) 0,7mL/min of 0,1 M $NaBH_4$/MeOH, RT

87% isol. yield
1.) 0,5mL/min, MeOH, -20 °C
2.) 0,5mL/min of 5 M H_2O_2/MeOH, -10 °C

The Ozone Module™ can be purchased as a stand-alone instrument or part of the IceCube™ Flow Reactor system.

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