

7/28/2021



demo

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SeaMerlin

CO2 Phase Change Demo System

Structured Data

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   "@type":"WebPage",
   "name":"CO2 Phase Change Demo System",
   "description":"Company Name: Infinity Turbine LLC
   Product: CO2 Phase Change Demo Cart
   Working Fluid: CO2
   Machine: ORC and ROT Radial Outflow Turbine System
   Industry: Energy
```

Applications: Waste heat to power, utilities, server farms, bitcoin mining, hot geothermal. Gas to liquids demo platform using CO2, water, electricity and Nafion.

High Technology Uses: Converting waste heat to power starting at 30C.

Machine Features: One moving part and solid state turbine technology.

Machine Runs On: liquid CO2.

Other Technology: Tribo effect power, hydrodynamic cavitation hot water power and extraction. Modular block technology. Gas leverage turbine for production of fuels from liquid CO2."

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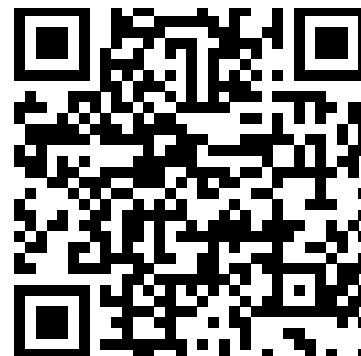
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PDF Version of the webpage

This webpage QR code

Producing Alcohol from Liquid CO2

Infinity has already built lots of closed-loop supercritical CO2 systems, and experimented with CO2 cavitation to make a one-moving-part liquid CO2 pump.

Infinity currently sells a cart-mounted portable on-demand supercritical CO2 phase change system for \$150,000 which can be used for the experiments listed below, along with many others. It is a cart which was designed to fit through any standard door, hallway, or elevator and has heavy duty casters for mobility.

We are currently looking for funding to develop the following:

1. On-Demand CO2 to Alcohol: Using our closed-loop liquid CO2 phase change system, adding Nafion in the process to make alcohol. Inputs: Liquid CO2, water, and electricity. About 3-4 kW to make a liter of alcohol (from lab experiments).
2. CO2 to Alcohol with In-Situ Power Generation: Using our closed-loop supercritical CO2 phase change system, produce the power via miniature CO2 turbine generator or static electricity generator (SEG) to power the conversion via Nafion.
3. Spin-To-Liquid (STL): A novel one-step approach to producing alcohol from liquid CO2 using a cavitation device with Nafion. This is a one-moving-part device employing sonochemistry with inputs of water and liquid CO2. Electricity is produced in-situ. Shaft rotation is required to spin the device (this can be done via a electric motor, pressure expanding turbine, or other shaft rotation such as a wind turbine).

You can further our efforts by buying our \$150,000 systems (which we build - and have four in stock) or by considering an investment to fund our development.

Teaser: Why was Nikola Tesla so fascinated with static electricity and spinning discs ? Our guess is that he had already found the worlds best battery - water. The Tesla turbine (while a fascinating pump) was actually a static electricity generator originally designed to charge water. All of his Colorado Springs experiments revolved around static electricity. Power generation and (wireless) transportation was via static electricity.



CO2 to Fuels Experimental Developer Platform Processor

The purpose of this platform is to provide experimentation and development of novel gas to liquids (GTL) technologies for the utilization and mitigation of carbon dioxide.

Infinity is now providing experimental platforms for developing modular cart mounted GTL (gas to liquids) fuel processing from CO₂. Using Nafion or similar catalysts (available in sheets, tubes, pellets, and more), the inputs are CO₂, water, and electricity to make alcohol (ethanol, methanol, and butanol). The selectivity of the output will depend on your formula for the inputs and catalyst.

The Infinity GTL Processor allows you to adjust the flow of CO₂, water, and electricity. The platform also allows you to incorporate and modulate in-situ power production, static electricity generation (SEG), and other unique functions.

The processor platform is available in a completed cart or parts in kit form for developers who want to configure their own system.



CO2 Phase Change Demonstrator Demo \$150,000

The liquid gas liquid phase change demonstrator is designed for experiments with liquid CO2.

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