Electrolytic Ozone Inc. Selected As One Of The Top Twenty Most Viable Water Technologies In The World At The 2013 Global Water Summit

Revolutionary Technology uses Element Six's Boron-Doped Synthetic Diamond to Turn Common Tap Water into a Powerful, Chemical-Free Sanitizer, which Kills 99.9 Percent of Common Bacteria

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SEVILLE, Spain, April 22, 2013 /PRNewswire/ -- Element Six, the world leader in synthetic diamond supermaterials and member of the De Beers Group of Companies, today announced that Electrolytic Ozone Inc., a member of the Technologies Division at Element Six, has been selected from 300 entries as one of the Top Twenty Most Viable Water Technologies at the 2013 Global Water Summit. Recognized for its commercialized compact sanitizing spray bottles, Electrolytic Ozone Inc. combined Element Six's free-standing solid, boron-doped microwave chemical vapor deposition (CVD) diamond with its electrolytic cells to turn common drinking water into dissolved ozone.

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"An Element Six partner since 2009, we've tirelessly worked to develop ozone production technology to enable a new class of compact green sanitizing applications that have previously been impractical," said Wayne Lieberman, CEO of Electrolytic Ozone, Inc. "Capitalizing on the electrochemical properties of synthetic diamond, our environmentally friendly and compact sanitizing solutions kill known pathogens in homes, restaurants, commercial kitchens, hotels and hospitals."

The joint solution is a 100 percent chemical-free and is as powerful as current sanitizing products, but without dangerous chemical fumes or residues. Holding the designation of "generally recognized as safe" (GRAS) by the U.S. Food and Drug Administration (FDA), Ozone (O_3) is cleared for use with organic food. The electrochemical properties of polycrystalline synthetic diamond allow reactions to be formed on electrode surfaces, without directly chemically interacting with any of the substances present—making it ideal for waste water treatment and advanced electroanalysis sensing systems.

"Since the product's launch in 2012, we've shipped thousands of units and continue to see increased interest from leading OEM system suppliers around the world," said Adrian Wilson, head of the Technologies Division at Element Six. "The potential future applications are vast, posing tangible benefits for biomedical, environmental, food, pharmaceutical, and oil and gas industries."

Outperforming alternative oxide and platinum-coated electrodes, Element Six and EOI's solution is specifically developed to operate at very high current densities (20,000 A / m^2). This results in higher efficiency and concentrations of ozone with greater sanitization power, which is two to three times smaller than other solutions for integration within an easy-to-use applicator. Element Six synthetic diamond also eliminates substrate delamination, a common cause of premature failure with diamond-coated electrodes, resulting in greater reliability and longer lifespan.

About Element Six

Element Six is a synthetic diamond supermaterials company. Element Six is a member of the De Beers Group of Companies, its majority shareholder. Element Six designs, develops and produces synthetic diamond supermaterials, and operates worldwide with its head office

registered in Luxembourg, and primary manufacturing facilities
in China, Germany, Ireland, Sweden, South Africa, U.S. and the U.K.

Element Six supermaterial solutions are used in applications such as cutting, grinding, drilling, shearing and polishing, while the extreme properties of synthetic diamond beyond hardness are already opening up new applications in a wide array of industries such as optics, power transmission, water treatment, semi-conductors and sensors.

About Electrolytic Ozone, Inc.

Electrolytic Ozone Inc. was founded in 2009 to commercialize a new miniaturized in- water from-water ozone-generation technology that enables compact ozone applications that were previously impossible or impractical. Since that time, with the backing of Element Six, EOI has brought synthetic diamond-based electrolytic ozone cells, subsystems, and appliances to water disinfection and surface sanitizing markets. EOI methods harness the benefits of ozone as an alternative to heat and chemical disinfectants, providing miniaturized ozone technology to enable next generation applications where compactness, reliability, and safety from excessive ozone out-gassing are critical.

SOURCE Element Six