Press information

International Conference on Plasma Surface Engineering in Germany

KYOCERA presents ceramic multilayer substrates for plasma reactors

Kyoto/Esslingen, 22 August 2012 – The Japanese technology company KYOCERA — one of the worldwide leading manufacturers of ceramic packages for the microelectronics industry — will present its ceramic multilayer substrates for plasma reactors at the PSE exhibition in Garmisch Partenkirchen, Germany at the company's booth (#34) on 11th and 12th September.

Kyocera’s ceramic multilayer substrates are now being introduced in dielectric barrier discharge (DBD) plasma applications operating at atmospheric pressure. The markets for these products range from industrial surface treatment processes (cleaning, etching, modification of surface properties) of different materials (metals, plastics, textiles, etc.) in various industries (automotive, packaging), to chemical reforming of water or gaseous substances (odour or dust removal), as well as for biological applications like sterilization of medical devices and food packages.

The substrates are based on Kyocera’s core competence in laminating and co-firing multiple layers of ceramic sheets and internal (buried) metal electrodes, which have already been widely applied in a variety of other applications including semiconductor and electronic device packaging, IT infrastructure, automotive and energy related applications.

Currently three geometric options are available: comb type,
honeycomb type and parallel flat substrate type. All of these offer high design flexibility in terms of geometry and arrangement of the electrode structure to provide for customized designs. The hermetically sealed electrodes also enable the substrate to be used in water or corrosive environments. Furthermore, Kyocera offers additional features like embedded heaters (for pre-heating) or electro-static electrodes (for dust collection). By applying Kyocera’s ceramic-to-metal brazing technology, pins, leads, balls or pipes can be attached to the substrate to enable easy connection to the power supply.

The ceramic itself is one of Kyocera’s proprietary Aluminum-Oxides, and due to its advantageous characteristics such as good thermal properties (high temperature durability and heat dissipation), good chemical resistance as well as its superior electrical and mechanical properties (even at high temperatures) this material qualifies for applications requiring high reliability including aerospace — where it has already been employed for a long time.

For more information about Kyocera: www.kyocera.eu

About Kyocera

Headquartered in Kyoto, Japan, Kyocera Corporation is one of the world’s leading manufacturers of fine ceramic components for the technology industry. The strategically important divisions in the Kyocera Group, which is comprised of 235 subsidiaries (as of April 1, 2012), are information and communications technologies, products which increase quality of life, and environmentally friendly products. The technology group is also one of the largest producers of solar energy systems worldwide, with more than 3.0 gigawatts of solar power having been installed around the world to date.

With a global workforce of about 71,000 employees, Kyocera posted net sales of approximately €10.83 billion in fiscal year 2011/2012. The products marketed by the company in Europe include laser printers, digital copying systems, microelectronic components, fineceramic products and complete solar power systems. The Kyocera Group has two independent companies in the Federal Republic of Germany: Kyocera Fineceramics GmbH in Neuss and Esslingen and Kyocera Document Solutions in Meerbusch.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent

Contact:

Kyocera Fineceramics GmbH
Daniela Faust
Manager Corporate Communications
Hammfelddamm 6
41460 Neuss
Germany
Tel.: +49 2131/16 37 - 188
Fax: +49 2131/16 37 - 150
Mobil: +49 175/7275706
daniela.faust@kyocera.de
www.kyocera.eu

Weber Shandwick Deutschland GmbH
Anja Eckert-Ellerhold
Account Director
Hohenzollertring 79 - 83
50672 Köln
Germany
Tel.: +49 221 - 94 99 18 - 62
Fax: +49 221 - 94 99 18 - 10
aeckert@webershandwick.com
www.webershandwick.de
international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr. Kazuo Inamori — to individuals and groups worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (converted at present €500,000 per prize category).