

**PLASMA RESISTANCE OF  
PERFLUOROELASTOMER AND  
FLUOROELASTOMER SEALS USED IN PLASMA  
ENVIRONMENTS**

Dr. Shuhong Wang, Dr. Michele Vigliotti, John M. Legare, and  
Shinichi Sogo  
*DuPont Performance Polymers, 300 Bellevue Parkway,  
Wilmington, DE 19809 USA*

Plasma is a very versatile tool for many applications. Due to its high reactivity and harsh environments, sealing materials are crucial for safety, process stability and productivity. Seals made from perfluoroelastomers and fluoroelastomers are normally used in critical locations in plasma environment due to their extraordinary chemical inertness, high thermal stability and cleanness. Elastomeric sealing materials made from perfluoroelastomers and fluoroelastomers as well as other elastomers are studied in various plasma environments and plasma attack mechanism will be discussed.