

Abstract Submitted  
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**An Industry Viewpoint on Electron Energy Distribution Function**

**Control** PETER VENTZEK, Tokyo Electron America — It is trite to note that plasmas play a key role in industrial technology. Lighting, laser, film coating and now medical technology require plasma science for their sustenance. One field stands out by virtue of its economic girth and impact. Semiconductor manufacturing and process science enabling its decades of innovation owe significant debt to progress in low temperature plasma science. Today, technology requires atomic level control from plasmas. Mere layers of atoms delineate good and bad device performance. While plasma sources meet nanoscale specifications over 100s cm scale dimensions, achieving atomic level control from plasmas is hindered by the absence of direct control of species velocity distribution functions. EEDF control translates to precise control of species flux and velocities at surfaces adjacent to the plasma. Electron energy distribution function (eedf) control is a challenge that, if successfully met, will have a huge impact on nanoscale device manufacturing. This lunchtime talk will attempt to provide context to the research advances presented at this Workshop. Touched on will be areas of new opportunity and the risks associated with missing these opportunities.

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