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(54) Title: ORGANOMETALLIC COMPOUNDS AND METHODS FOR THE DEPOSITION OF HIGH PURITY TIN OXIDE

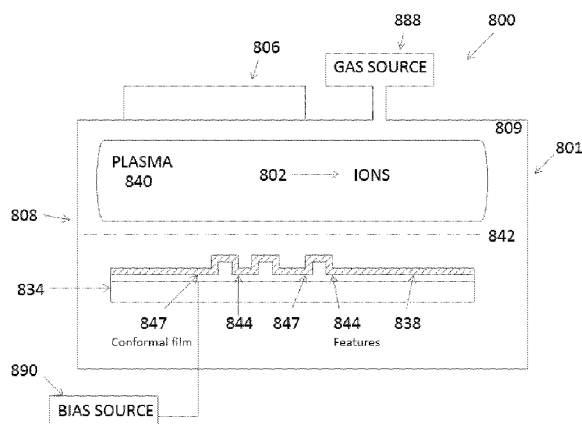


Figure 1: a sectional view of a processing chamber useful for the processes disclosed herein

(57) Abstract: Disclosed herein are compounds useful for the deposition of high purity tin oxide. Also disclosed are methods for the deposition of tin oxide films using such compounds. Such films demonstrate high conformality, high etch selectivity and are optically transparent. Such compounds are those of the Formula as follows R_x-Sn-A_{4-x} wherein: A is selected from the group consisting of (Y or R'z) and a 3- to 7-membered N-containing heterocyclic group; each R group is independently selected from the group consisting of an alkyl or aryl group having from 1 to 10 carbon atoms; each R' group is independently selected from the group consisting of an alkyl, acyl or aryl group having from 1 to 10 carbon atoms; x is an integer from 0 to 4; a is an integer from 0 to 1; Y is selected from the group consisting of N, O, S, and P; and z is 1 when Y is O, S or when Y is absent and z is 2 when Y is N or P.

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