

Title (en)

ELECTRON DENSITY MEASUREMENT AND CONTROL SYSTEM USING PLASMA-INDUCED CHANGES IN THE FREQUENCY OF A MICROWAVE OSCILLATOR

Title (de)

ELEKTRONENDICHTEMESSUNGS- UND REGELUNGSSYSTEM UNTER ANWENDUNG VON PLASMAINDUZIERTEN FREQUENZVERÄNDERUNGEN EINES MIKROWELLENOSZILLATORS

Title (fr)

SYSTEME DE MESURE ET DE CONTROLE DE DENSITE ELECTRONIQUE UTILISANT DES MODIFICATIONS EFFECTUEES PAR PLASMA DANS LA FREQUENCE D'UN OSCILLATEUR POUR HYPERFREQUENCES

Publication

**EP 1218763 A4 20050202 (EN)**

Application

**EP 00947493 A 20000720**

Priority

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Abstract (en)

[origin: WO0106268A1] A method and system for measuring at least one of a plasma density and an electron density (e.g., in a range of 10<10> to 10<12> cm<-3>). Measurement of at least one of the plasma density and the electron density enables plasma-assisted processes, such as depositions or etches, to be controlled using a feedback control. Both the measurement method and system generate a control voltage that in turn controls a plasma generator (205) to maintain at least one of the plasma density and the electron density at a pre-selected value.

IPC 1-7

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IPC 8 full level

**G01N 22/00** (2006.01); **G01R 19/00** (2006.01); **H01L 21/302** (2006.01); **H01L 21/3065** (2006.01); **H05H 1/00** (2006.01)

CPC (source: EP)

**G01R 19/0061** (2013.01)

Citation (search report)

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**US 0019535 W 20000720; CN 00810563 A 20000720; EP 00947493 A 20000720; JP 2001510852 A 20000720; KR 20027000688 A 20020117; TW 89114527 A 20000720**