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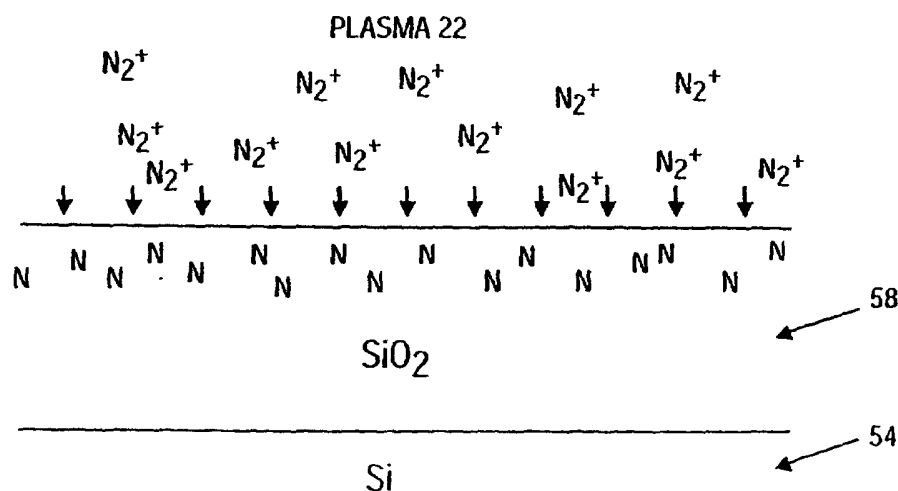
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H01L 21/314, 21/318 **CRUSE, James, P.**; P.O. Box 938, Capitola, CA 95010 (US).
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(54) Title: PLASMA APPARATUS AND METHOD FOR PROCESSING A SUBSTRATE



(57) Abstract: Embodiments of the invention generally provide a method of forming a nitride gate dielectric layer. The method includes generating a nitrogen-containing plasma in a processing chamber via introduction of a nitrogen-containing processing gas into the processing chamber and the application of an ionizing energy to the processing gas, and pulsing the ionizing energy to maintain a mean temperature of electrons in the nitrogen-containing plasma of less than about 0.7 eV.

WO 2003/107382 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01J37/32 H01L21/314 H01L21/318

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Patent family members are listed in annex.

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