Title (en)

ARRAYS OF MICROCAVITY PLASMA DEVICES WITH DIELECTRIC ENCAPSULATED ELECTRODES

Title (de)

ARRAYS VON MIKROKAVITÄTS-PLASMAGERÄTEN MIT GEKAPSELTEN DIELEKTRISCHEN ELEKTRODEN

Title (fr)

RESEAUX DE DISPOSITIFS A PLASMA A MICROCAVITES COMPRENANT DES ELECTRODES ENCAPSULEES DANS UN DIELECTRIQUE

Publication

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Application

EP 06787559 A 20060717

Priority

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Abstract (en)

[origin: WO2007011865A2] The invention concerns microcavity plasma devices and arrays with thin foil metal electrodes (16, 18) protected by metal oxide dielectric (15, 19). Devices of the invention are amenable to mass production techniques, and may, for example, be fabricated by roll to roll processing. Exemplary devices of the invention are flexible. Embodiments of the invention provide for large arrays of microcavity plasma devices that can be made inexpensively. The structure of preferred embodiment microcavity plasma devices of the invention is based upon thin foils of metal that are available or can be produced in arbitrary lengths, such as on rolls. In a device of the invention, a pattern of microcavities (12) is produced in a metal foil. Oxide is subsequently grown on the foil and within the microcavities (where plasma is to be produced) to protect the microcavity and electrically isolate the foil. A second metal foil is also encapsulated with oxide and is bonded to the first encapsulated foil. For preferred embodiment microcavity plasma device arrays of the invention, no particular alignment is necessary during bonding of the two encapsulated foils. A thin glass layer (25) or vacuum packaging (34), for example, is able to seal the discharge medium into the array.

IPC 8 full level

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CPC (source: EP KR)

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Citation (search report)

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- See references of WO 2007011865A2

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