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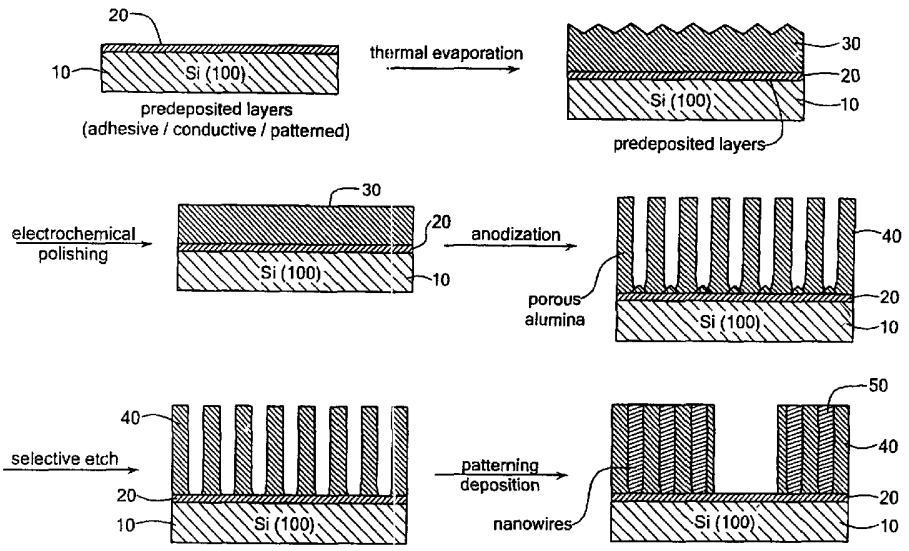
Declaration under Rule 4.17:

— *as to the identity of the inventor (Rule 4.17(i)) for all designations*

[Continued on next page]

(54) Title: THICK POROUS ANODIC ALUMINA FILMS AND NANOWIRE ARRAYS GROWN ON A SOLID SUBSTRATE



(57) Abstract: The presently disclosed invention provides for the fabrication of porous anodic alumina (PAA) films on a wide variety of substrates. The substrate comprises a wafer layer and may further include an adhesion layer deposited on the wafer layer. An anodic alumina template is formed on the substrate. When a rigid substrate such as Si is used, the resulting anodic alumina film is more tractable, easily grown on extensive areas in a uniform manner, and manipulated without danger of cracking. The substrate can be manipulated to obtain free-standing alumina templates of high optical quality and substantially flat surfaces. PAA films can also be grown this way on patterned and non-planar surfaces. Furthermore, under certain conditions the resulting PAA is missing the barrier layer (partially or completely) and the bottom of the pores can be readily accessed electrically.

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A. CLASSIFICATION OF SUBJECT MATTER
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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, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	US 2003/010971 A1 (MISRA VEENA ET AL) 16 January 2003 (2003-01-16) the whole document --- -/--	1-6,8, 11-13, 17, 22-27, 36-44, 46-49, 52,53, 63-68, 77-81,83

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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