Title: METHOD OF MAKING A NANOSCALE ELECTRONIC DEVICE

Abstract: The present invention relates to a method of making a nanoscale electronic device wherein said device comprises a gap between about 0.1 nm and about 100 nm between at least two conductors, semiconductors or the combination thereof. The method features complete assembly of electrical contacts before addition of a molecular component thereby preserving the integrity of the molecular electronic component and maintaining a well-formed gap. The gap produced is within the nanoscale regime, has uniform width and is further characterized by surfaces that are uniformly smooth.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : H01L 21/44, 21/28, 21/336
US CL. : 438/259
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)
U.S. : 438/299,199,238,243,386,637,647,648,650,672

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 5,712,201 A (LEE et al.) 27 January 1998 (27.01.1998), see entire document.</td>
<td>1,4,6,12,15,16,18,19,2</td>
</tr>
<tr>
<td>A</td>
<td>US 6,319,824 B1 (LEE et al.) 20 November 2001 (20.11.2001), see entire document.</td>
<td>8,30-32,37,1-39</td>
</tr>
<tr>
<td>A</td>
<td>US 6,064,085 A (WU) 16 May 2000 (16.05.2000), see entire document.</td>
<td>1-39</td>
</tr>
</tbody>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Date of the actual completion of the international search
27 July 2004 (27.07.2004)

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Date of mailing of the international search report
20 OCT 2004

Authorized officer: [Signature]
JOSE DEES
Telephone No. 571-272-1569

Form PCT/ISA/210 (second sheet) (July 1998)
Continuation of B. FIELDS SEARCHED Item 3:
EAST, EPO, JPO, DERWENT, USPAT IBM _TDB, USPGPB search terms: "molecular electronic component", "molecular electronic component or MEM or MEMs or "micro-electronic mechanical"