

Title (en)

MOLECULAR SCALE ELECTRONIC DEVICES

Title (de)

MOLEKULARE ELEKTRONISCHE VORRICHTUNG

Title (fr)

DISPOSITIFS ELECTRONIQUES A L'ECHELLE MOLECULAIRE

Publication

EP 1542869 A2 20050622 (EN)

Application

EP 00991376 A 20000918

Priority

- US 0025518 W 20000918
- US 15471699 P 19990920
- US 15714999 P 19990930
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Abstract (en)

[origin: WO0127972A2] Molecular scale electronic devices are disclosed. Such devices include at least two conductive contacts, and a conductive path bridging the contacts. The conductive path is able to be written into a perturbed state by a voltage pulse, which can be of high or low conductivity, relative to an initial state. The conductive path comprises organic molecules including at least one electron-withdrawing group. Room temperature negative differential resistance is exhibited by the devices.

[origin: WO0127972A2] Molecular scale electronic devices (1) are disclosed. Such devices include at least two conductive contacts (9 and 11), and a conductive path (13) bridging the contacts. The conductive path is able to be written into a perturbed state by a voltage pulse, which can be of high or low conductivity, relative to an initial state. The conductive path comprises organic molecules including at least one electron-withdrawing group. Room temperature negative differential resistance is exhibited by the devices.

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IPC 8 full level

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