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(54) **Electron emission device and electron emission display using the same**

(57) An electron emission device includes a substrate, first electrodes formed on the substrate, electron emission regions electrically connected to the first electrodes, and second electrodes placed over the first electrodes such that the second electrodes are insulated from the first electrodes. The second electrodes have openings to expose the electron emission regions. A third electrode is placed over the second electrodes such that the third electrode is insulated from the second electrodes. The third electrode has openings communicating with the openings of the second electrodes. Each of the electron emission regions and the second electrodes simultaneously satisfy the following conditions:

$$D2/D1 \leq 0.579 \quad \text{and} \quad (1),$$

$$D2 \geq 1 \, \mu\text{m} \quad (2)$$

where D1 indicates the width of each of the openings of the second electrode, and D2 indicates the width of each of the electron emission regions.

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FIG. 2

