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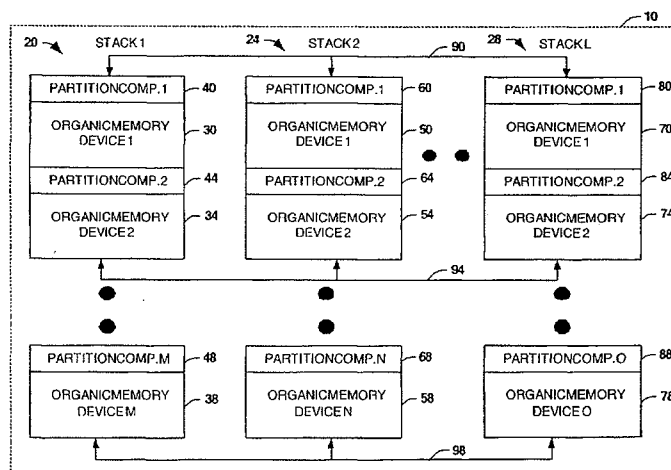
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(54) Title: STACKED ORGANIC MEMORY DEVICES AND METHODS OF OPERATING AND FABRICATING



(57) Abstract: The present invention provides a multi-layer organic memory device (10, 24, 28, 34, 38, 54, 58, 74, 78, 100, 700, 704) that can operate as a non-volatile memory device having a plurality of stacked and/or parallel memory structures constructed therein. A multi-cell and multi-layer organic memory component (30, 34, 50, 54, 70, 74) can be formed with two or more electrodes (110, 122, 132, 140, 220, 244, 332, 348, 432, 448, 514, 560, 616, 704, 710) having a selectively conductive media (706, 708) between the electrodes (110, 122, 132, 140, 220, 244, 332, 348, 432, 448, 514, 560, 616, 704, 710) forming individual cells, while utilizing a partitioning component (40, 44, 48, 60, 64, 68, 80, 84, 88) to enable stacking of additional memory cells on top of or in association with previously formed cells. Memory stacks (30, 34, 50, 54, 70, 74) can be formed by adding additional layers - respective layers separated by additional partitioning components, wherein multiple stacks can be formed in parallel to provide a high-density memory device.

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