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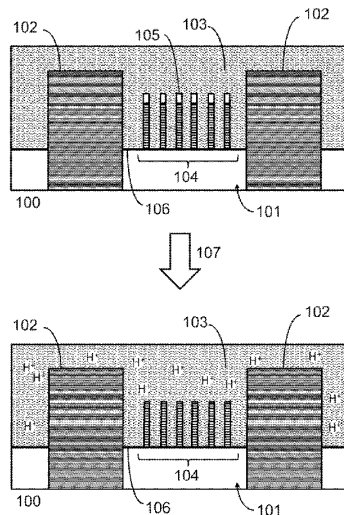


FIG. 1

(57) Abstract: Provided herein are compositions, devices, systems and methods for DNA oligomer synthesis. Further provided are devices comprising addressable electrodes controlling polynucleotide synthesis (deprotection, extension, or cleavage, etc.). The compositions, devices, systems and methods described herein provide improved synthesis, storage, density, and retrieval of biomolecule-based information.

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