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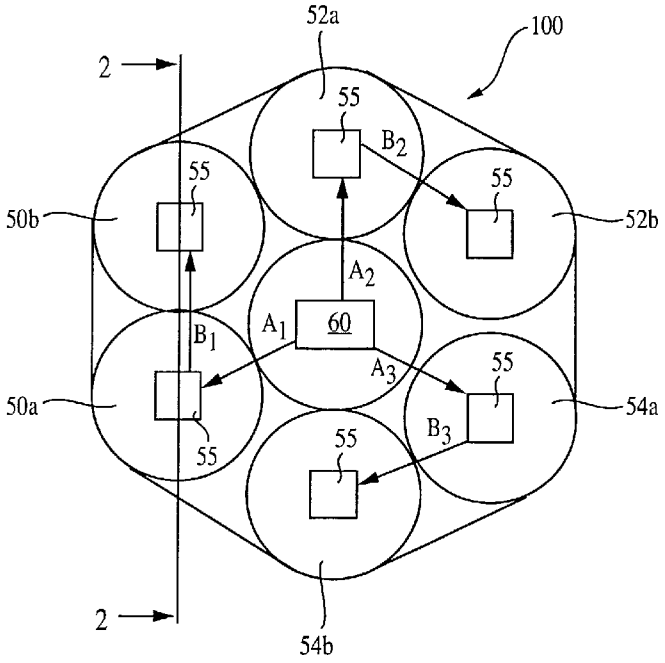
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(54) Title: ATOMIC LAYER DOPING APPARATUS AND METHOD



(57) Abstract: An improved atomic layer doping apparatus is disclosed as having multiple doping regions in which individual monolayer species are first deposited and then dopant atoms contained therein are diffused into the substrate. Each doping region is chemically separated from adjacent doping regions. A loading assembly is programmed to follow pre-defined transfer sequences for moving semiconductor substrates into and out of the respective adjacent doping regions. According to the number of doping regions provided, a plurality of substrates could be simultaneously processed and run through the cycle of doping regions until a desired doping profile is obtained.

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