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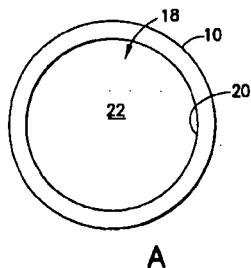
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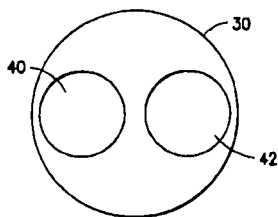
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(54) Title: THROUGHPUT ENHANCEMENT FOR SINGLE WAFER REACTOR

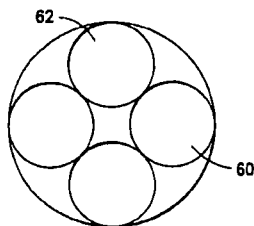


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(57) Abstract: A semiconductor substrate processing system, including a single wafer reactor and a multi-wafer holder (30) positionable in the reactor. The system also optionally includes an automated substrate transport assembly (144) including a multi-wand array for transporting a corresponding plurality of wafers into and out of the reactor, and a multi-wafer cassette (100) for simultaneously supplying multiple wafers to the multi-wand array. The multi-wafer modifications permit ready upgradeability to an existing single wafer reactor and markedly enhance the throughput capacity of the reactor while retaining the film uniformity and deposition process control advantages of the single wafer reactor system.



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