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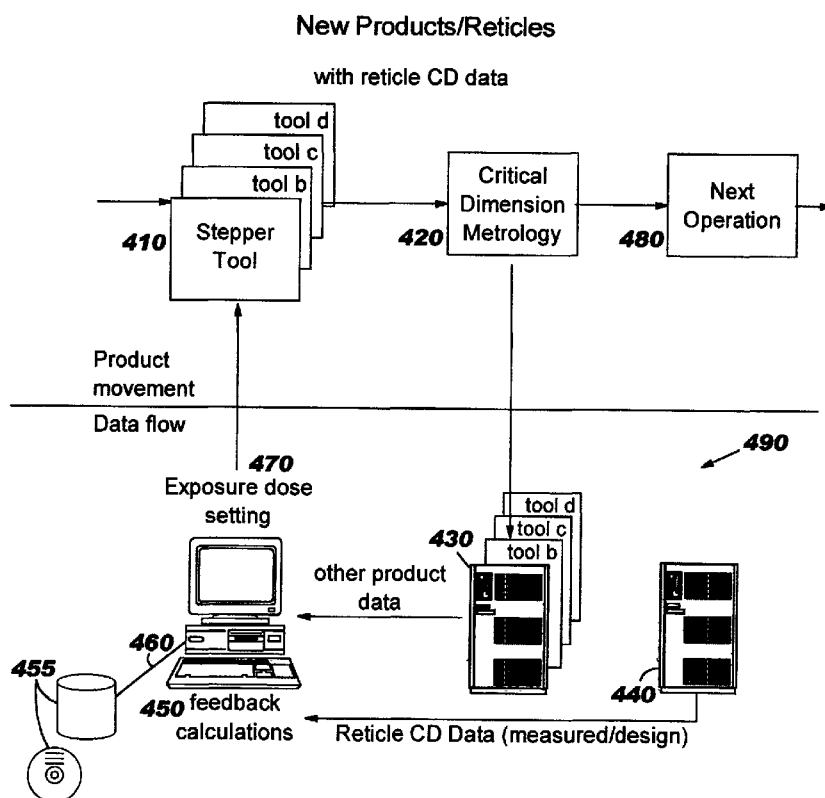
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(54) Title: PHOTOLITHOGRAPHIC CRITICAL DIMENSION CONTROL USING RETICLE MEASUREMENTS



(57) Abstract: A method of implementing a new reticle for manufacturing semiconductor devices on a wafer which involves performing measurements (420) on the reticle and assigning an initial exposure dose (470) by using a predetermined algorithm (450). The exposure control system (490) utilizes reticle CD data (430, 440) for automatically calculating reticle exposure offset values, i.e. reticle factors (510). A correlation of reticle size deviations (500) to calculated reticle factors (510) is used to derive a reticle factor (510) for the new reticle. The derived reticle factor (510) is then used to predict (450) an initial exposure condition for the new reticle which is applied (470) to the lithography tool (410) for achieving a wafer design dimension.



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