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- (71) **Applicant:** KLA-TENCOR CORPORATION [US/US];
Legal Department, 1 Technology Drive, Milpitas, California 95035 (US).
- (72) **Inventors; and**
- (71) **Applicants :** PLIHAL, Martin [US/US]; 2728 Alpina Court, Pleasanton, California 94588 (US). ANANTHA, Vidyasagar [IN/IN]; Flat No. 407, CNR Plaza, Nagarjuna Colony, Hyderabad 500079 (IN).
- (74) **Agents:** MCANDREWS, Kevin et al.; KLA-Tencor Corp., Legal Department, 1 Technology Drive, Milpitas, California 95035 (US).
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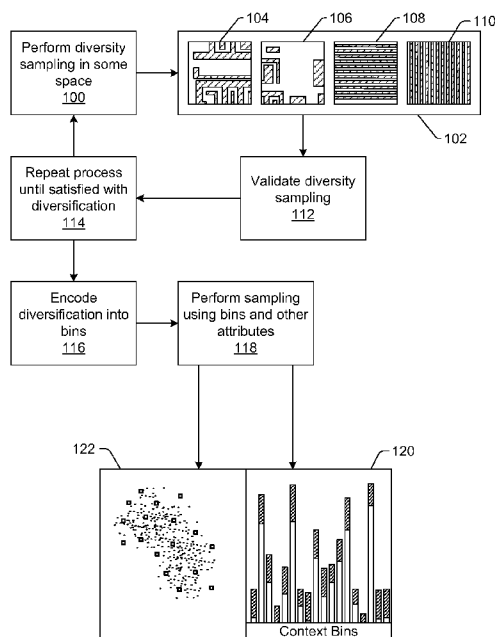
(54) **Title:** DYNAMIC BINNING FOR DIVERSIFICATION AND DEFECT DISCOVERY

Fig. 1

(57) **Abstract:** Methods and systems for generating a defect sample for a wafer are provided. One method includes separating defects detected on a wafer into bins having diversity in values of a first set of one or more first attributes of the defects. The method also includes selecting, independently from one or more of the bins, defects within the bins based on diversity in a second set of one or more second attributes of the defects. The selected defects are then used to create a defect sample for the wafer. In this manner, defects having diverse values of multiple attributes can be easily selected.



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