En-Vision

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IN-LINE INSPECTION FOR BURIED DEFECTS

En-Vision (Enhanced Vision) is a new generation inspection system specifically targeting quick and non-destructive detection of nm scale buried defects.
Buried defects are located under the silicon surface, invisible to conventional inspection tools (Optical / SEM), and when occuring in the active areas impact device performance and yield.

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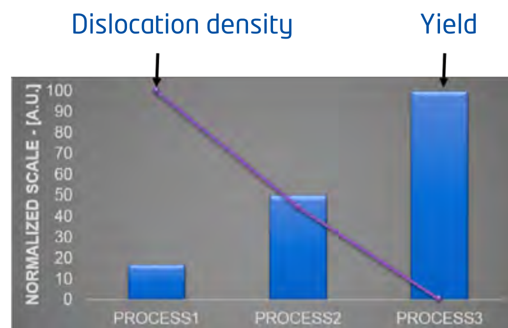
Facts

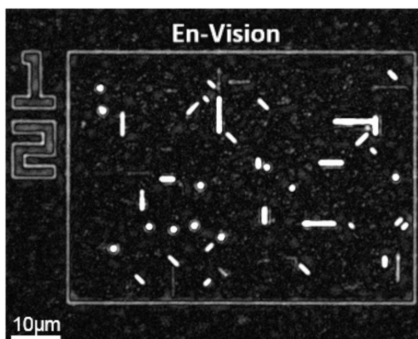
- Buried defects such as dislocations, COP´s or Oi precipitates may cause severe yield issues when located in active device areas.
- Previously only destructive methods could identify such defects.
  - Time consuming (weeks).
  - Provide only partial information (high uncertainty).
- Buried defects (process and stress related) are most critical during the ramp up and yield optimization phases for a new product.

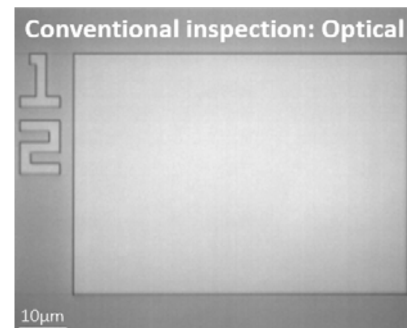


Real example of the impact of dislocations on yield. Refer to publication

Benefits

- Nondestructive In-Line detection of buried defects in FEOL.
- En-Vision dramatically speeds up the detection of buried defects.
  - Faster manufacturing ramp up and yield enhancement.
- Save time and resources for detection and investigation of buried defects.





This material is for information purposes only. Equipment acceptance is based on contracted specifications.

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