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The status of etching processes in semiconductor fabrication, and upcoming challenges. JIN-YOUNG BANG, SUNGIL CHO, Samsung electronics — Recently, etch processes have become increasingly important in semiconductor fabrication. Recent devices require very small critical dimensions and high aspect ratio contact holes or trenches. In terms of equipment, it should be designed to have high process accuracy, productivity and reproducibility. Therefore, a lot of efforts are made to secure the process capability and equipment stability in accordance with the development speed of semiconductor technology. In this presentation, the problems that arise in the latest semiconductor manufacturing are introduced from the viewpoint of process, equipment, and manufacturing. We will also discuss the new technologies requires to realize sub-10 nm and aspect ratio of 100 or more required for next-generation devices.

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