

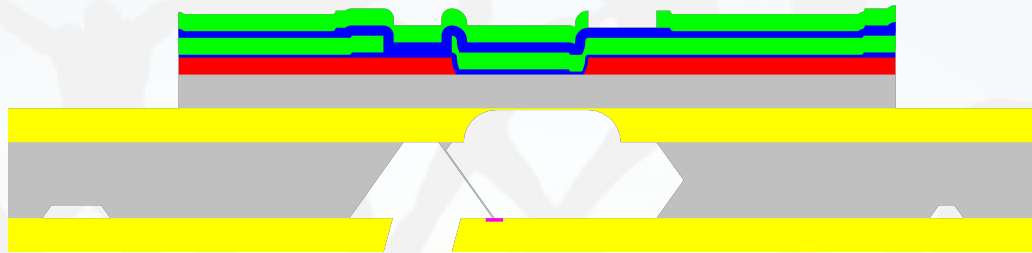
Process visualization

FlowDesigner for your process flow design and visualization

Designing a process for fabricating micro and nano structures requires substantial knowledge of process technologies such as deposition, etching and lithography. The number and types of materials and processes used in a typical device, combined with the fact that for every material/process the exact response depends on the individual machines, makes the design and validation of a process flow a complex activity. Process design is therefore commonly referred to as being an art.

"FlowDesigner turns design into a craft!"

Schematic cross section pictures are typically used during process design to retain an overview of the whole process flow. FlowDesigner is a powerful tool to do this work automatically. You can analyze your first order flow based on geometrical simulation. This enables advanced features like tolerance analysis and yield optimization. It uses a material database which you can extend and modify.

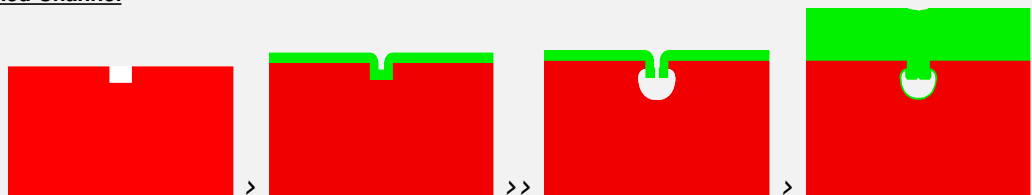


In FlowDesigner a process is visualized based on libraries of materials and their response to individual actions. Standard elements are provided in extensive libraries and can be edited interactively to insert the specific details of your own fabrication environment.

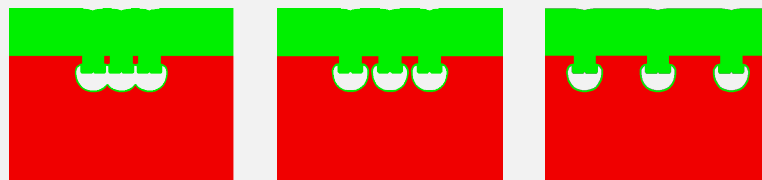
Features

- 2D cross section visualization
- Hierarchical process definition
- Technology models like isotropic etch, directional deposition, CMP, wafer bonding, KOH etching, DRIE, etc.
- Comprehensive libraries of materials
- Comprehensive libraries of processes
- All models, processes and visualizations are drawn to scale (user defined)
- Parameterized design environment
- Export of results in bitmaps, movies or a html report
- MaskSliceLink: with one click from CleWin or MaskEngineer all fabrication steps on your screen

Example: Buried Channel



Step by step process flow (above) and mask variations for the final result (below)



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FlowDesigner: process flow visualization



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Solutions for Micro and Nano Technologies

CREATE YOUR DESIGN | MANAGE YOUR CLEANROOM