

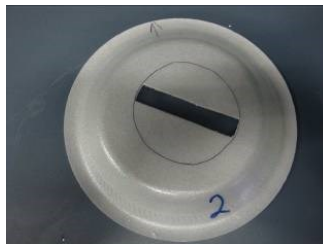
# NNCI—Nanoscale Science and Engineering Edible Chips

Explore!

1. Take a plate with a cookie and spread a thin film of frosting over the cookie (silicon wafer).
2. Place Mask# 1 over your cookie—line up arrows on plates. Sprinkle with photoresist #1.
3. Place Mask# 2 over your cookie—line up arrows on plates. Sprinkle with photoresist #2.
4. Place Mask# 3 over your cookie—line up arrows on plates. Sprinkle with photoresist #3.
- 5.



Mask #1



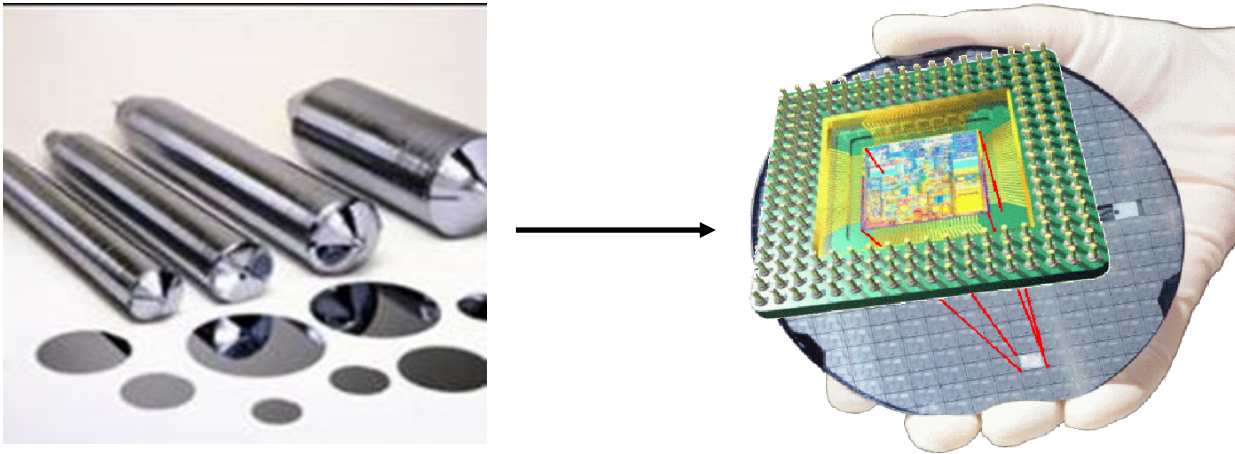
Mask #2



Mask #3

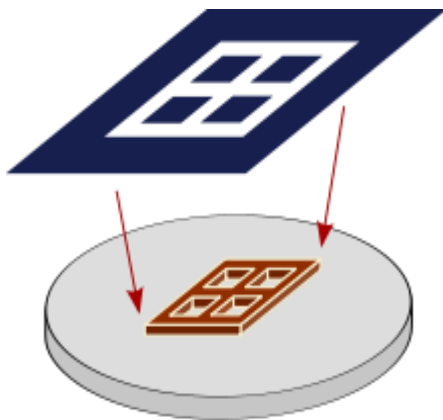
# NNCI—Nanoscale Science and Engineering Edible Chips

An integrated circuit or chip is a set of electronic circuits made on a small plate (wafer) that is made of silicon (think sand).



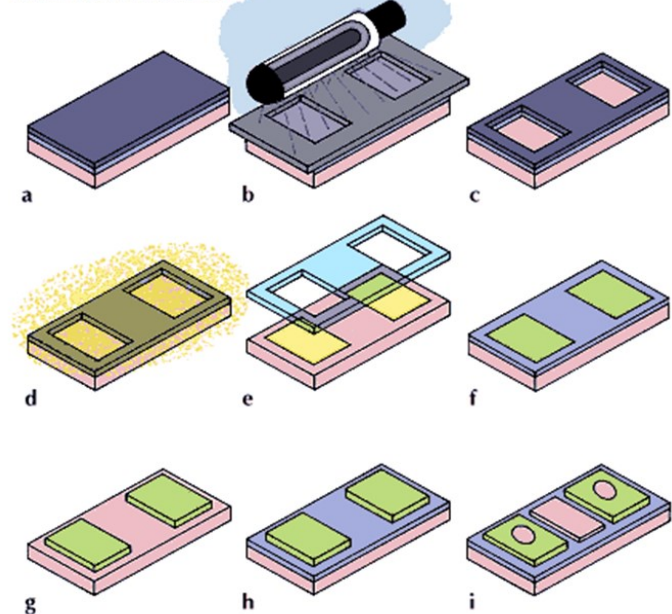
Many steps are needed to create the layers of a chip. We use gases, light, and chemicals to make the layers.

To create the patterns of a chip a mask or stencil is used.



The mask is used to form the pattern on the chip.

MAKING A MICROCHIP



Many steps are used to add and remove materials to create several layers on the wafer.