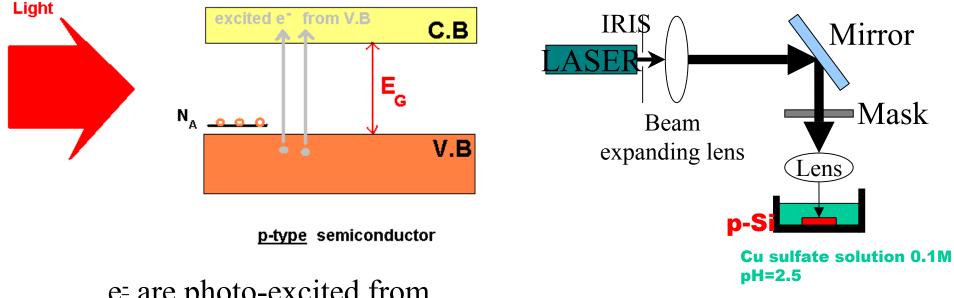
Photo-induced electrodeposition

Principle:



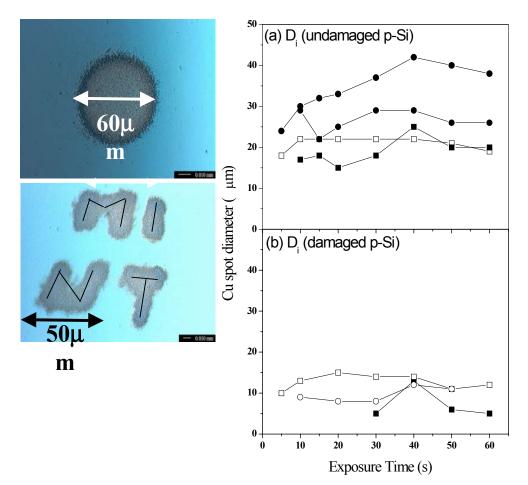
<u>e= are photo-excited</u> from V.B to C.B and contribute to the conduction process

Electroless deposition of Cu occurs only where laser shines on p-Si. w/ or w/o the mirror.

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Photo-induced electrodeposition



Structure size given by electron diffusion in the semiconductor

Structure size reduced by:

•shorter wavelength

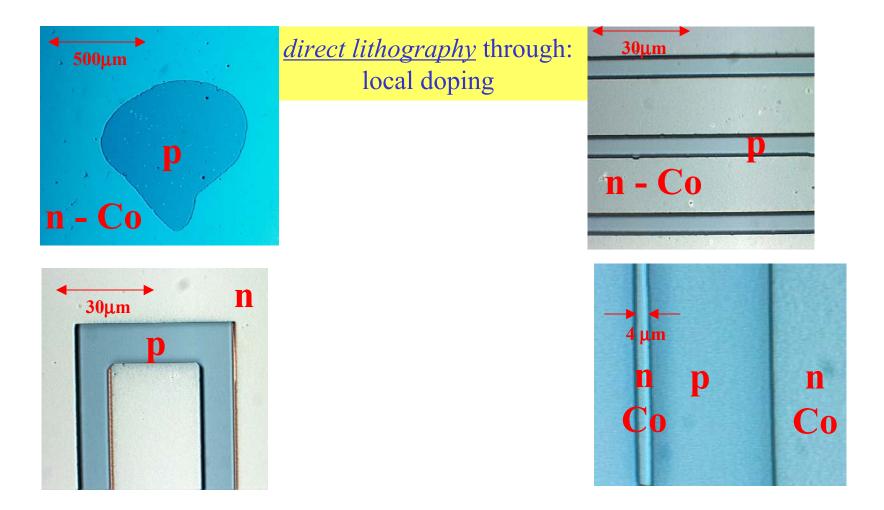
•lower intensity

•e⁻ mfp and carrier lifetime in semiconductor

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Electrodeposited Ni, Co, Fe on GaAs Self-aligned patterning



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