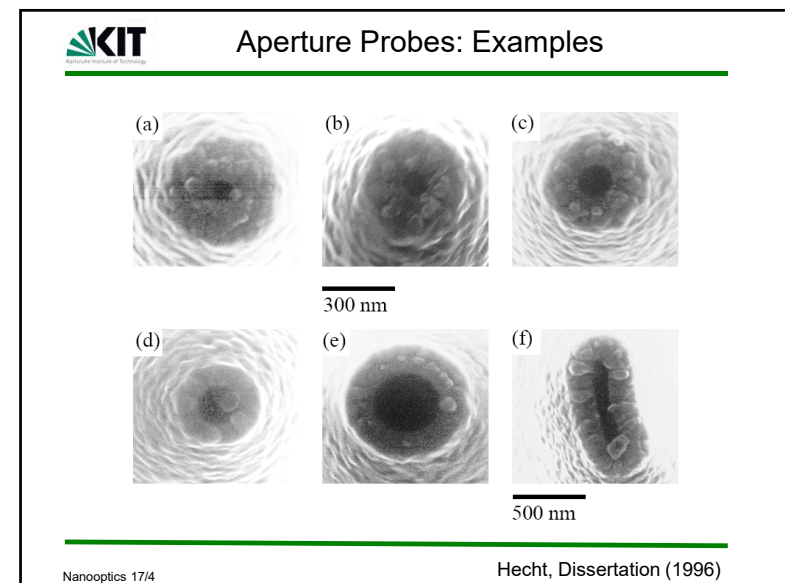
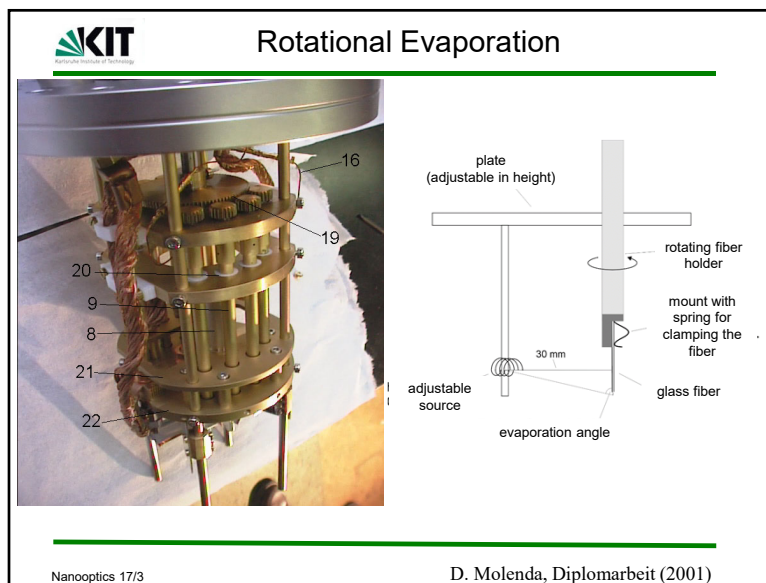
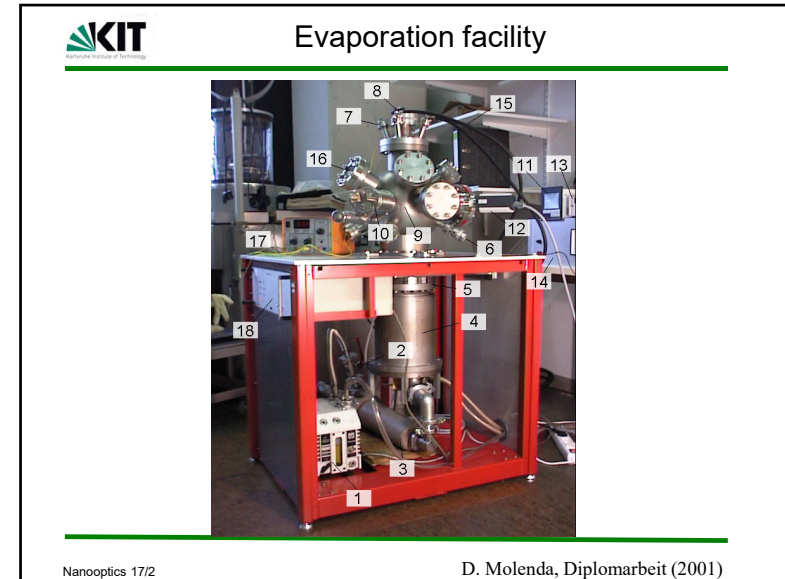
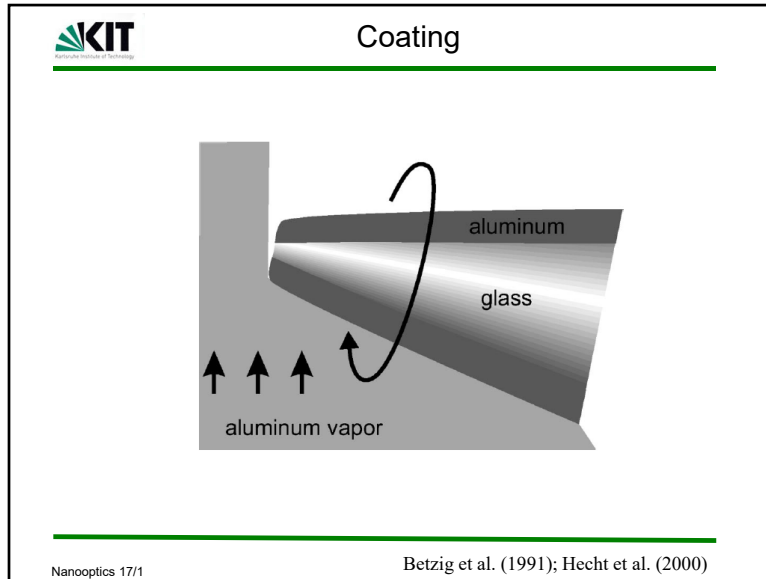
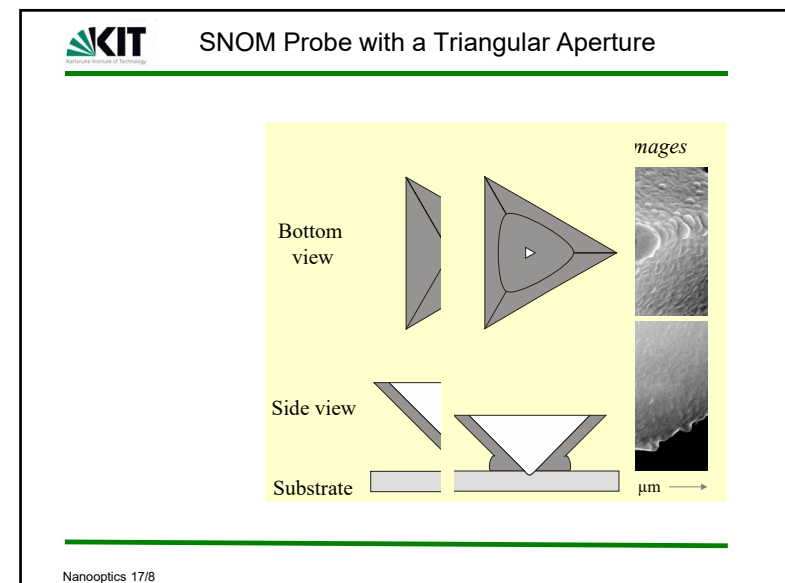
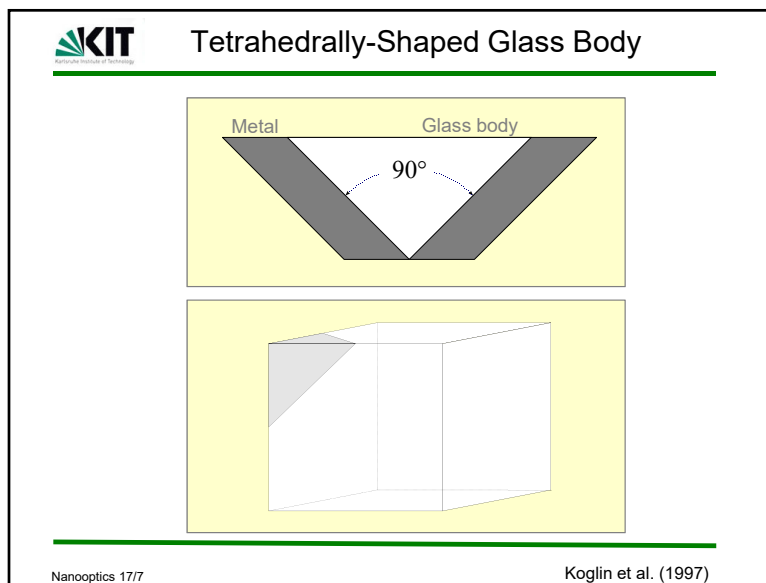
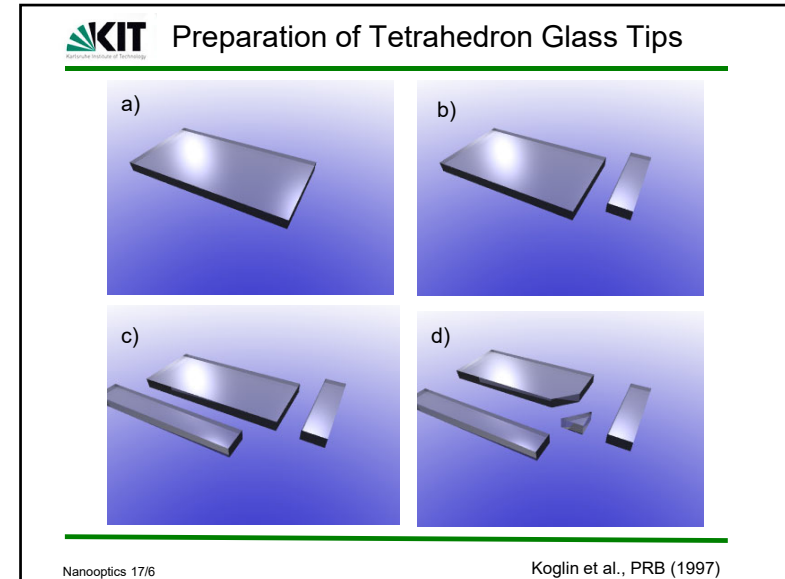
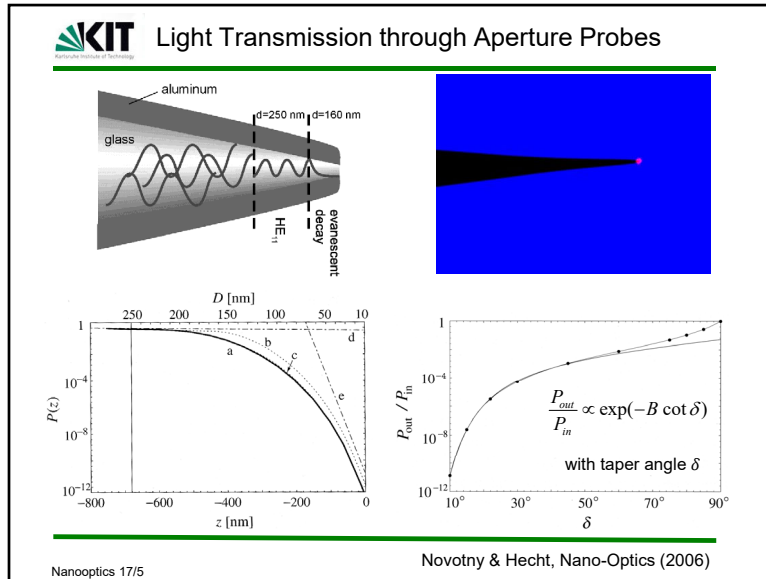






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Focused-Ion-Beam Milling

Glass body → Metal coating → Aperture formation

Focused Ion beam

Triangular Aperture

The diagram shows the process of Focused-Ion-Beam Milling in three steps: 1. A triangular glass body. 2. The glass body is coated with metal. 3. A focused ion beam (indicated by a red dotted line) is used to mill the metal coating, forming a triangular aperture. Below the diagram are two SEM images showing the resulting triangular apertures in a metal-coated glass body.

Nanooptics 17/9

Veerman et al. (1999); N. Rau & F. Perez

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Triangular-Aperture (TA) Probe

Typical size of the aperture is 30-60 nm

500 nm

Nanooptics 17/10

D. Molenda et al., Opt. Express (2005)

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Metal Tip

Metallic probe

Photo-detector

Collecting lens

Pinhole

The schematic diagram shows a metallic probe (shaded cone) positioned above a sample. Light from the sample is collected by a collecting lens, passes through a pinhole, and is detected by a photo-detector.

Nanooptics 17/11

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Two-Photon Fluorescence Excitation

The schematic diagram illustrates the setup for Two-Photon Fluorescence Excitation. It includes an Argon Laser, a Mode-locked Ti:Sapphire Laser, a Procompensation Prism Pair, a Probe Head, an X-Y Stage, a Nikon Infinity microscope, a Spectrograph, an N.D. Filter, a Filter, a CCD, a DI Controller, an APD, and a Counter. Below the schematic are two SEM images showing the probe tip. The left image shows a sharp tip with a 10 nm scale bar. The right image shows a broader tip with a 10 nm scale bar and a coordinate system with N (North) and E (East) directions.

Nanooptics 17/12

Sanchez et al., PRL 1999

