
Advanced Glass Making Techniques

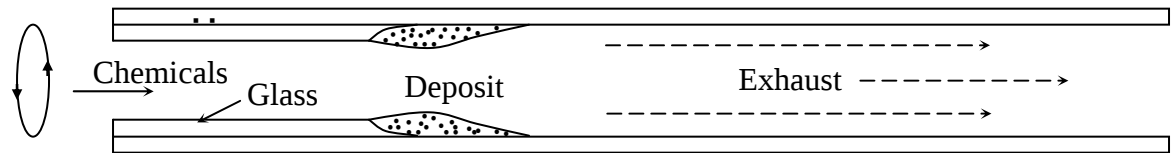
John B. MacChesney

National Academy of Engineering

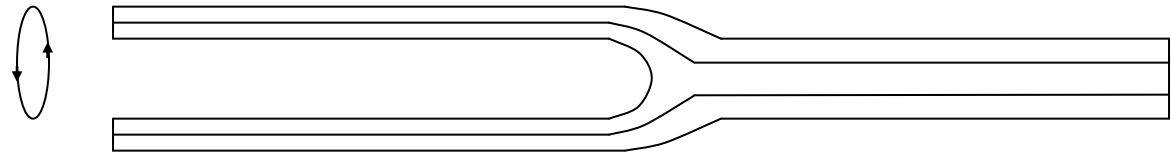


Modified Chemical Vapor Deposition

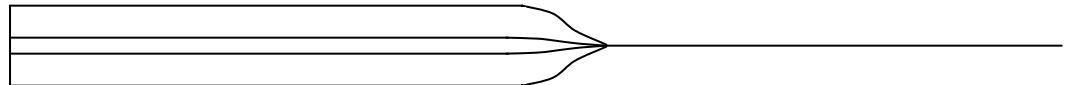
Deposit



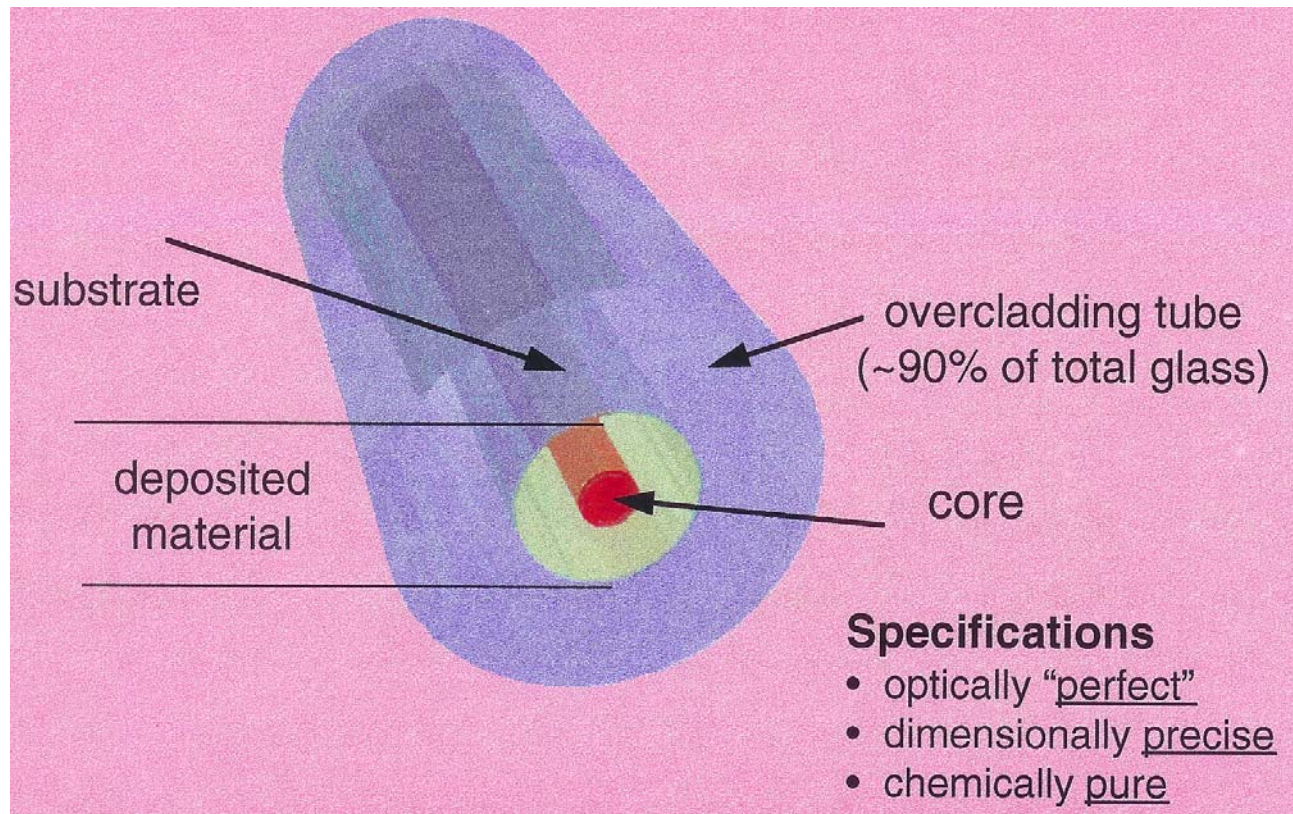
Collapse



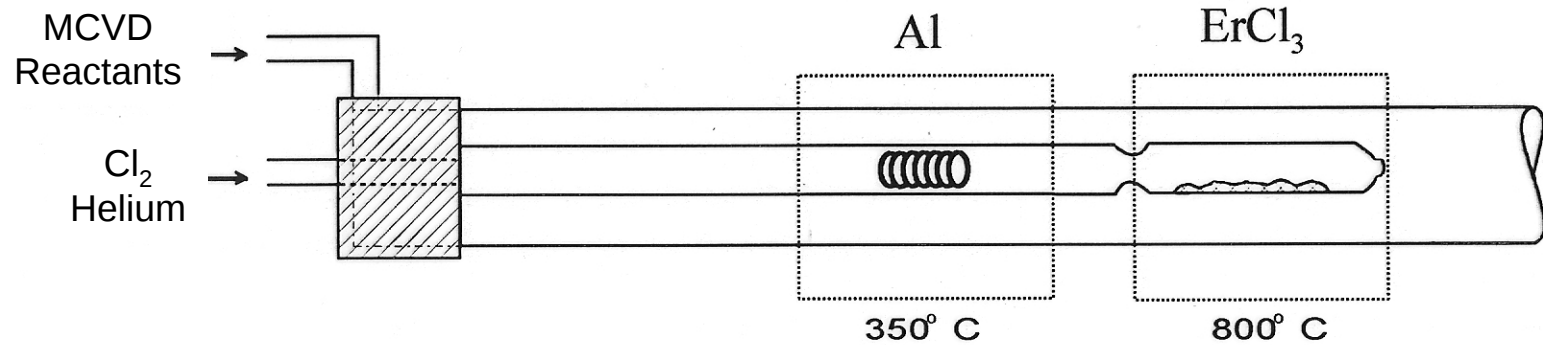
Fiber Draw



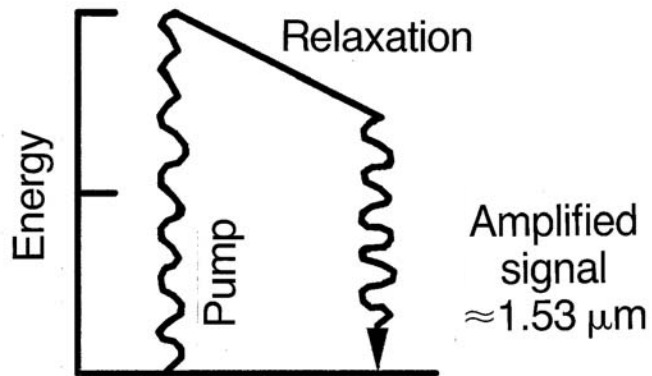
Solgel Preform



MCVD Rare Earth Doping



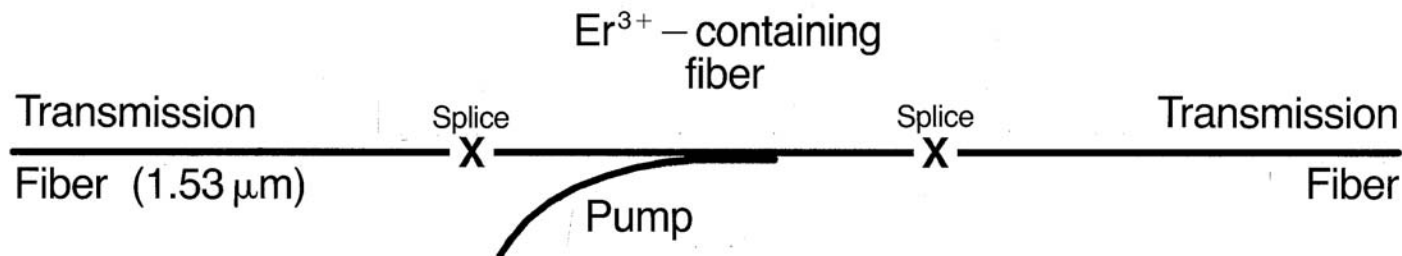
Erbium Doped Fiber Amplifier



$$\lambda_{\text{pump}} < \lambda_{\text{signal}}$$

$$\lambda_{\text{pump}} = 0.98 \text{ or } 1.48 \mu\text{m}$$

$$\lambda_{\text{signal}} = 1.53 \mu\text{m}$$



Electrophoretic Deposition

