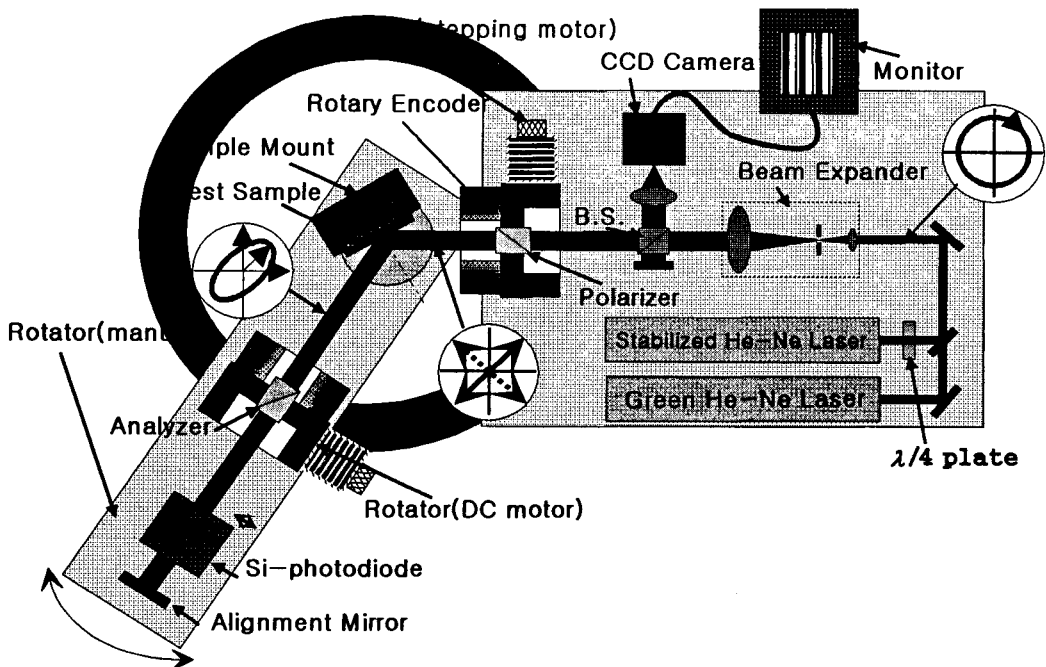


초정밀 타원해석기 개발

Development of high precision ellipsometer

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The design and fabrication of a high precision ellipsometer of the rotating-analyzer type for the ellipsometric parameters delta, Δ , and psi, Ψ and for the derived thickness and refractive index of a silicon dioxide layer on silicon is presented. A stabilized He-Ne laser is used for both sample alignment and the ellipsometric measurements. High accurate rotary encoders are used to correct the azimuth of the polarizers and the angle of incidence of the sample. The various measuring uncertainties from the components of the ellipsometer is discussed. The precision of the measurement for the developed ellipsometer is obtained from repeated measurements by using the NIST standard reference materials.



Rotating Analyzer Type High Precision Ellipsometer