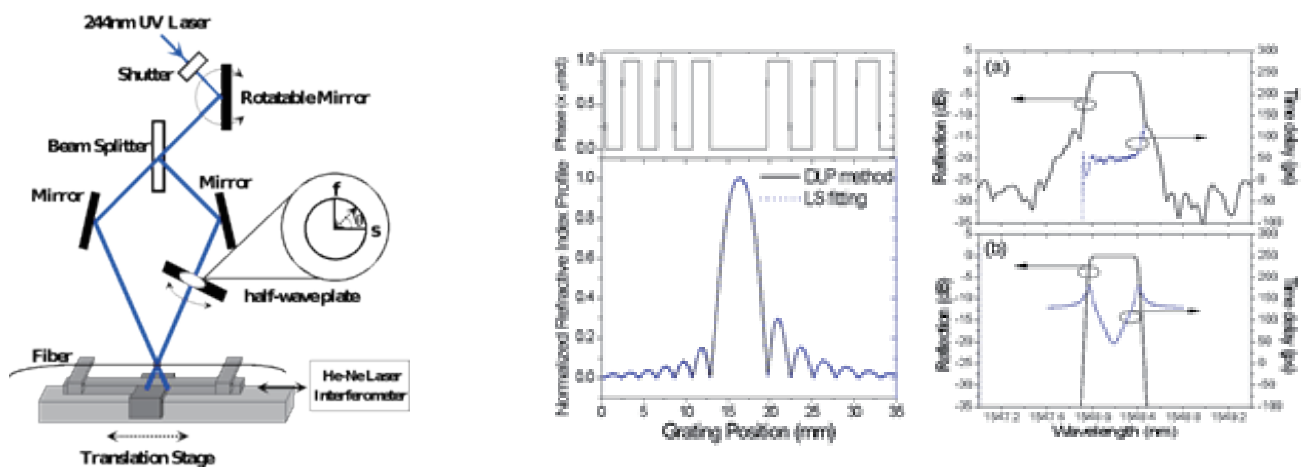


光纖光學

我們發展出可以在一次掃描中製作出 dc- 折射係數平坦化 (true apodization) 與任意 ac- 折射係數振幅及相位之光纖光柵的新方法，並實際製作出窄頻無色散 (dispersionless) 光纖光柵，可應用於 DWDM OADM 來達到較大的頻譜可利用率，更提出利用側邊繞射監控的方式來接續長的光纖光柵之新方法，在這些新型光纖光柵的製作方法上也已經有多項中美專利的獲得。我們也在實驗上及理論上發展利用融拉式光纖元件之 fundamental-mode cutoff 效應的 多種 Tunable fiber filters，包括 side-contact LPG、band-pass filter 及 short-pass filter 等，也將此種 Tunable fiber filters 應用來製作 S-band 光放大器及 S-band 光纖雷射等，也曾針對正方形及長方形晶格橢圓空洞式光子晶體光纖來進行理論上的設計與分析。



說明: Advanced fiber grating design and fabrication

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