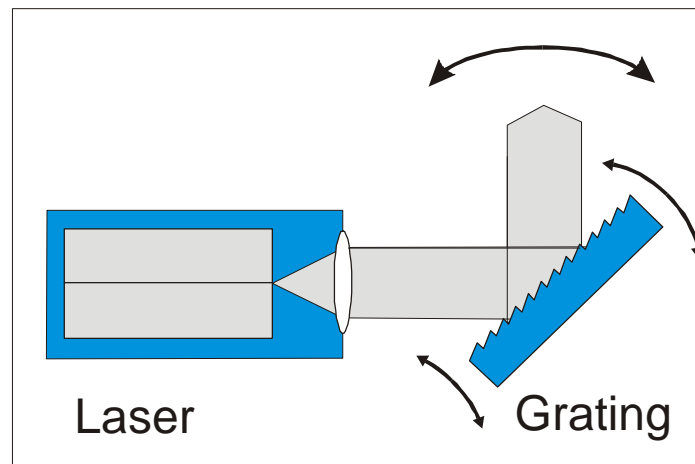


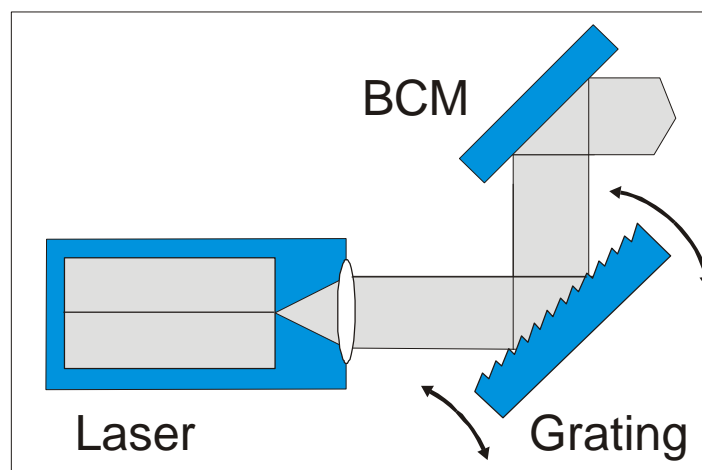
Technical Note – No. 11

Beam Steering Mirror for Littrow Laser

Littrow Lasers are a very powerful tool for spectroscopy. The major drawback of the Littrow Laser concept is, that the angle of the beam and due to this the beam position changes during wavelength scans.



This problem can be solved with a Beam Steering Mirror BCM. The mirror is attached to the grating in such a way, that it follows each movement of the grating simultaneously. By this method, each angle change of the beam is corrected instantaneously. Only a minor parallel shift of the beam in the order of one micrometer remains. In result, the laser beam can be coupled into optical fibers without having problems due to angle change or beam walk.



Due to the reflectivity of the beam correction mirror, there might be a slight reduction of the maximum output power of the laser system up to 5% by maximum.

Document: <http://data.sacher-laser.com/techdocs/BSM.pdf>

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