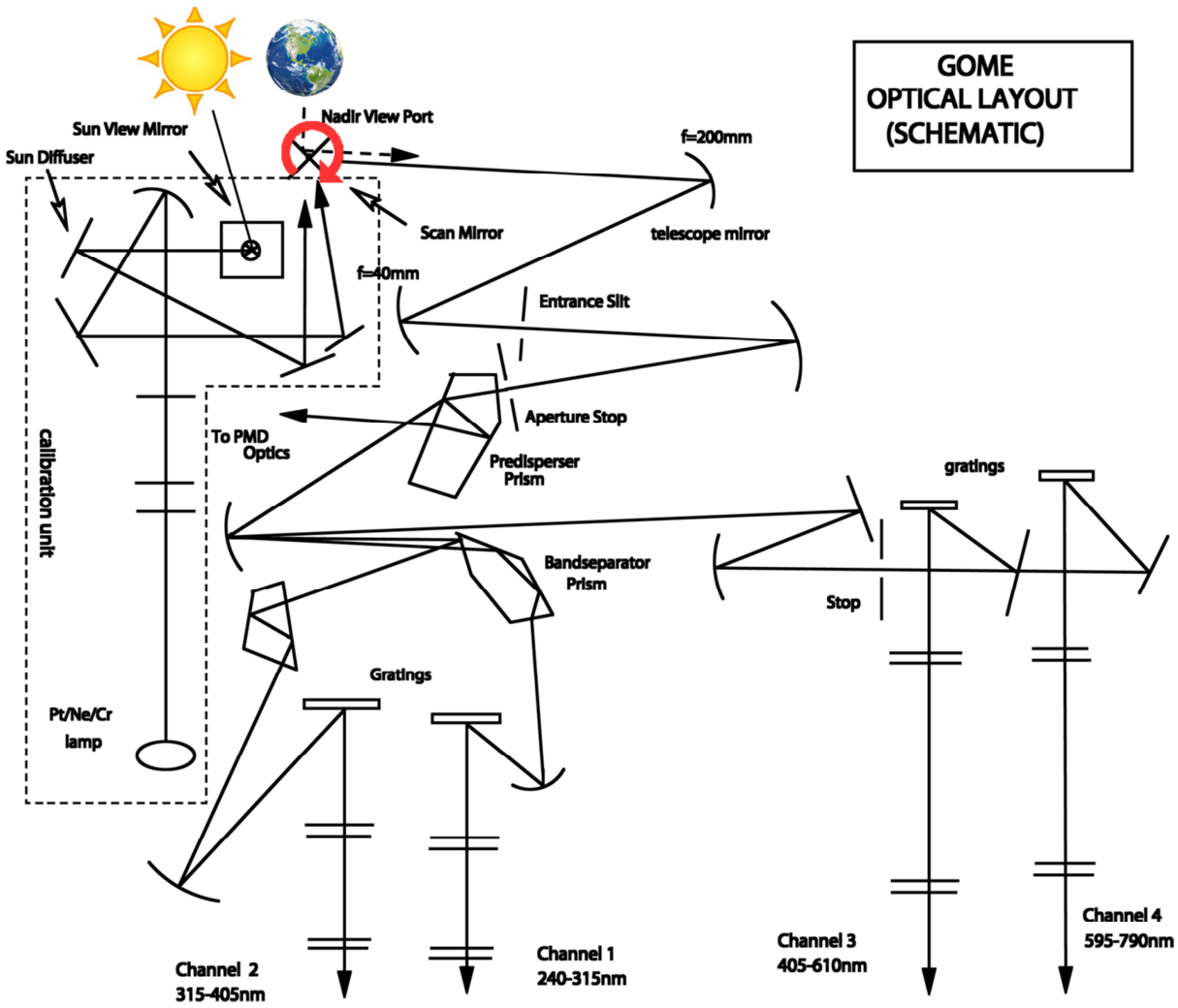

Schematics of the GOME spectrometer. A very similar design is used for SCIAMACHY and GOME-2. The only moving part is the scan mirror (red arrow) that can be rotated to pick up the signal from the nadir Earth view, the sun, and the internal Pt/Ne/Cr hallow discharge lamp. Dispersion into four spectral channels occurs with the predisperser- and band-separator prisms. In each of the optical channel gratings leads to further dispersions thus achieving moderately high spectral resolution (0.2-0.4 nm) in the spectrum recorded by a linear Si reticon array detector. The Pt/Ne/Cr lamp is used to calibrate the instrument. Some of the signal is diverted to Polarisation Measurement Devices (PMD) that are used for polarization corrections and cloud detection. Adapted from Burrows et al. (1999).