

As mentioned in Raman LIDAR Operational use so far all the water-vapor Raman lidars are prototypes designed and realized at, or in collaboration with, universities. Thus, there are no recipes how to run a water-vapor Raman lidar system.

Operational lidar products are now available with nitrogen Raman channel. Such instruments offer an accurate way to self-calibrate the optical extinction profile without any coupling to other sensors which are easy to operate and to maintain and more accurate than coupled sensors like ceilometers and photometers.

The main challenge in practice is to assure stable operation of the laser source, alignment stability, detection of weak signals.