High-power pulse laser (637nm) → 280nm xenon flashlamp → Aerosol inlet → Dual CMOS array o/p (particle shape) → Photodiode o/p (particle size) → Fluorescence collection mirrors → Grating assembly → 8-channel photomultiplier → Xenon beamdump → Pellicle beam-splitter → Aerosol outlet to pump → Particle fluorescence spectrum → Low power cw laser (635nm) → High-power pulse laser (637nm) → Beam dump → Particle fluorescence spectrum