



Hyper-spectral Imaging Solutions for the Life Sciences



Technology Comparison Table

Parameter/Technology	ChromoDynamics AOTF	Filter Wheel	Liquid Crystal Tunable Filter	Sagnac Interferometer	Tomographic	Push-broom Grating
Technique	Solid-state non-linear crystal	Mechanical	Solid-state non-linear crystal	Interferometer and Mechanical Scanning	Grating or Rotating Prism Dispersion and Computation	Dispersion and Mechanical Scanning
Spectral Resolution	Dynamically variable	Fixed and defined by filters selected a priori	Fixed and defined by design a priori	High	Limited	High
Spatial Resolution	Good	Good	Good	Good	Limited	Dependent on speed and selected ROI
Data Capture	Variable sequential band-pass with random access	Sequential band-pass	Fixed sequential band-pass with random access	Full spectrum-interferometer scan	Snapshot of all information	Full spectrum, spatial scan only
Transmission	30 - 35% (un-polarized source)	> 80% at peak	10 - 20% (un-polarized source)	~ 60%???	~ 60%	~ 60%
Switching Speed	100 μ s	~50 ms	100 – 150 ms			10 ms - minutes
Computation Requirements	-	-	-	Intensive	Intensive	Intensive