

# ASTRONOMY

## TECHNOLOGY TODAY

Your Complete Guide to Astronomical Equipment

## BAADER PLANETARIUM

### Expands Imaging-Filter Lines

#### Baader "Highspeed" Narrowband Filters

Baader Planetarium's new  $f/2$  "Highspeed" narrowband filters and filter sets are designed especially for the delicate requirements of extremely-fast



astrograph optics, such as Hyperstar, RASA, and ultra-fast instruments from TEC, A-P, ASA, etc. Conventional narrowband filters can cause a heavy loss in transmission due to the strong center-wavelength (CWL) shift. They are simply not engineered to accommodate such

extreme light cones. In very extreme cases, the CWL even shifts out of the full width half maximum (FWHM).

Baader's Highspeed filters are engineered to have a CWL pre-shift which matches  $f/2$  to  $f/3$  perfectly. The FWHM is also optimized. In spite of the typical line broadening with such fast optical trains, Baader's Highspeed filters are able to deliver maximum contrast. For the first time, these filters allow the effective use of extremely-fast optics for high-contrast imaging of emission nebulae. Using these filters between  $f/1.8$  and  $f/3.5$  shows a dramatic improvement compared to standard narrowband filters.

Baader's new Highspeed filters are available in H-alpha, OIII and SII, in 1.25- or 2.0-inch threaded cells.

#### Baader 3.5-nm Narrowband H-alpha Filters

Also new from Baader Planetarium is a 3.5-nm H-alpha enforced-narrowband filter available in three sizes: (1) 2-inch mounted, (2) 50.8-mm round, and (3) 50-mm by 50-mm square.

The new filter opens up the extremely-narrow 3.5-nm H-alpha world with



enforced contrast that provides more signal of the faintest nebula detail. Manufacturing such ultra-narrow filters requires extreme coating homogeneity and very high center-wavelength precision. Initial runs of these filters have centered on the three most popular sizes, but other sizes are planned for future runs.

For more information on these and other Baader Planetarium products, please visit online at [www.baader-planetarium.com](http://www.baader-planetarium.com).