



## Announcement

# A BAA spectroscopy initiative

Spectroscopy is now a practical possibility for amateur astronomers motivated to produce scientifically useful observations. The BAA is therefore launching an initiative aimed at helping members wishing to move into spectroscopy to acquire some of the necessary equipment. Spectrographs intended for amateur use are now available commercially and after considering those currently on the market we have decided to assist members to purchase a grism-based Alpy 600 spectrograph from the European company Shelyak. This is a mature product with several dozen already in the hands of amateurs in Europe and the US who are using it to produce spectra of real scientific value. The Alpy is compact, lightweight and relatively straightforward to use, and software to analyse the data it produces is freely available.

We are inviting BAA members of at least two years' standing to apply for a BAA Ridley Grant of £400, which will cover 25% of the normal price of an Alpy 600 spectrograph fitted with calibration and guiding modules. (The calibration and guiding modules are necessary for productive use of the spectrograph.) Shelyak will offer a matching 25% discount on their list price to participants in this scheme so in effect the equipment will be available to BAA members at half price. As Shelyak are based in France their equipment is priced in Euros, so there may be small changes in the sterling price as exchange rates vary. At the time of writing the list price of the Alpy 600 with calibration and guiding modules is 2125 Euros.

Ridley Grant conditions can be found on the BAA webpage <https://britastro.org/about-grants> together with a link to download the application form. Please note that a description of the intended use of the equipment

and the BAA Observing Section(s) to which results will be sent should be supplied with the completed form. We expect these spectrographs to be put to productive use.

The photo shows the Alpy 600 with calibration and guiding modules with guiding and imaging CCD cameras attached. For those wanting more technical information about the Alpy, there are links to User Guides for all three components on the User Documentation section of the Shelyak website at [http://www.shelyak.com/dossier.php?id\\_dossier=40&lang=2](http://www.shelyak.com/dossier.php?id_dossier=40&lang=2).

Some examples of what can be achieved with the Alpy 600 can be found on Christian Buil's website at [http://www.astrosurf.com/buil/alpy600/first\\_light.htm](http://www.astrosurf.com/buil/alpy600/first_light.htm). Many of the spectra which have been submitted to the ARAS database at [http://www.astrosurf.com/aras/Aras\\_DataBase/DataBase.htm](http://www.astrosurf.com/aras/Aras_DataBase/DataBase.htm) have been acquired with Alpy spectrographs.

In addition to purchasing the spectrograph, participants in the scheme will need two CCD cameras, one for recording spectra and one for acquiring guiding images. You may already have suitable cameras but the two ranges most frequently used with this spectrograph are those from Starlight Xpress and Atik, so as part of this initiative we have also negotiated discounts for suitable CCD cameras from both suppliers. Details of these discounts are available from myself at the address below. These discounts will only be available to those participating in the Alpy purchase scheme with the aid of a Ridley Grant.

I should stress that cameras from either supplier will work well with the Alpy. Depending on which cameras you use, you will need appropriate adapters to connect these to the spectrograph. Shelyak will advise you and can supply these.

Prospective users should have a telescope mounting capable of guiding on a star for several minutes. Spectra are normally recorded as a series of spectral images of several minutes each which are later combined in software. The Alpy will work with any telescope with a focal ratio between F/4 and F/10. Optimal transmission of light into the spectrograph occurs at F/5. If desired a focal reducer can be used in front of the spectrograph to reduce the telescope focal ratio but a high quality focal reducer should be used as poor chromatic correction will adversely affect the spectrum.

We intend to run a hands-on training course later in the year once the spectrographs have been delivered to help people get up to speed in using the equipment and in learning how to process their spectral images. We are also setting up a Spectroscopy area within the BAA Forum on the website ([www.britastro.org/forum](http://www.britastro.org/forum)) where members can share information and ask questions about all aspects of spectroscopy.

Applications using the Ridley Grant application form should be sent to the Business Secretary, BAA, Burlington House, Piccadilly, London W1J 0DU. **The closing date for applications under this initiative is 2016 June 30.**

It would be helpful if members interested in purchasing a spectrograph through this initiative could email me at the address below at an early stage so we have an indication of the likely take-up. At the moment we are not imposing a limit on the number of purchases which we will support, but we reserve the right to introduce a limit if the number of applicants is very high. Any questions about the operation of the scheme should also be addressed to the undersigned.

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Photo courtesy of Shelyak

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