

Figure 2 shows some secondary electron spectra [1] which directly measure a work function. Since work function changes are related to surface electronic state modification such as charge transfer [2], it becomes convenient to evaluate work function changes even in maintenance period of SR center.

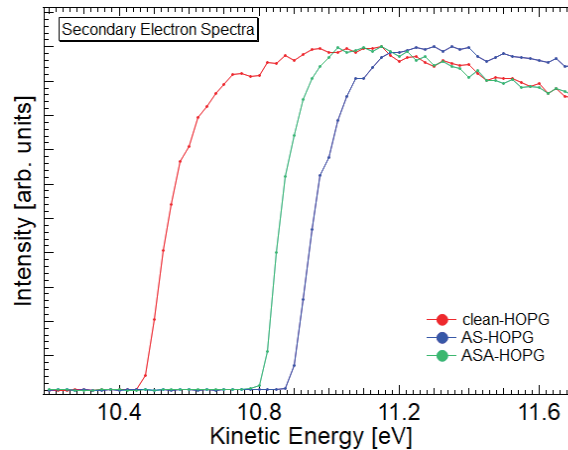


Fig. 2 Secondary electron spectra of HOPG with various surface treatments [1].

With the aid of laser and the view port of the VUV Source HIS 13, it becomes easy to align the sample position to measure UPS (and SR-PES), as shown in the Fig. 3.

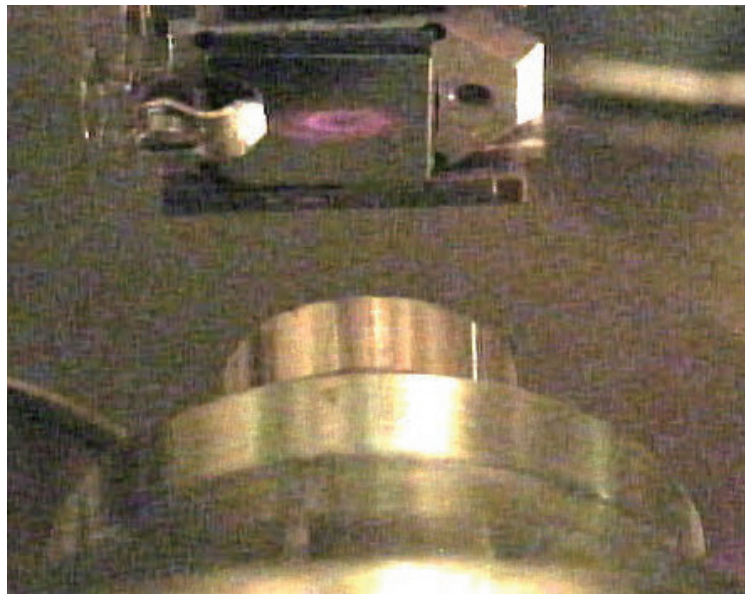


Fig. 3 CCD camera view when aligning the sample with laser.

In summary, UPS system has been successfully installed at BL-8 and electronic structure analysis can be easily performed anytime.

References

- [1] H. Takatani, *Master thesis*, **2022**.
- [2] K. Mitsuhashi, K. Ide, H. Takatani, and M. Takizawa, *J. Electron Spectrosc. Relat. Phenom.*, **2021**, 252, 147123.