



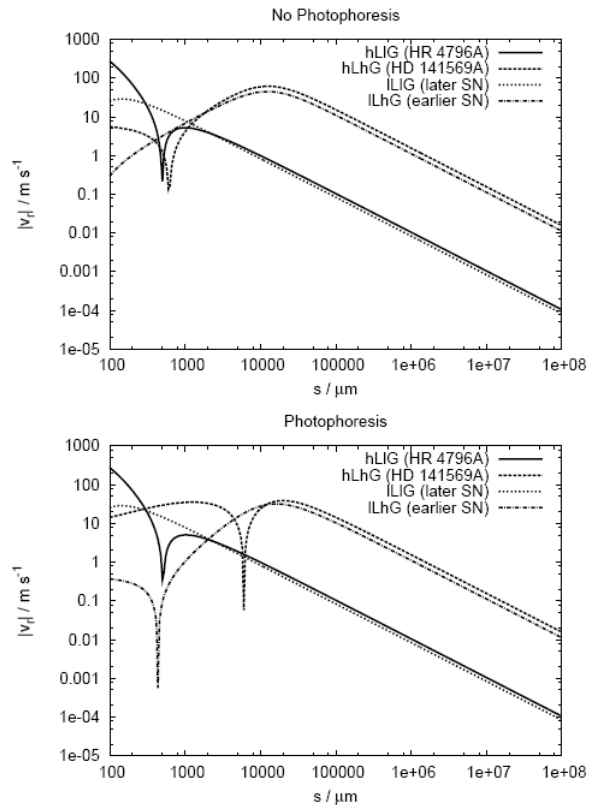
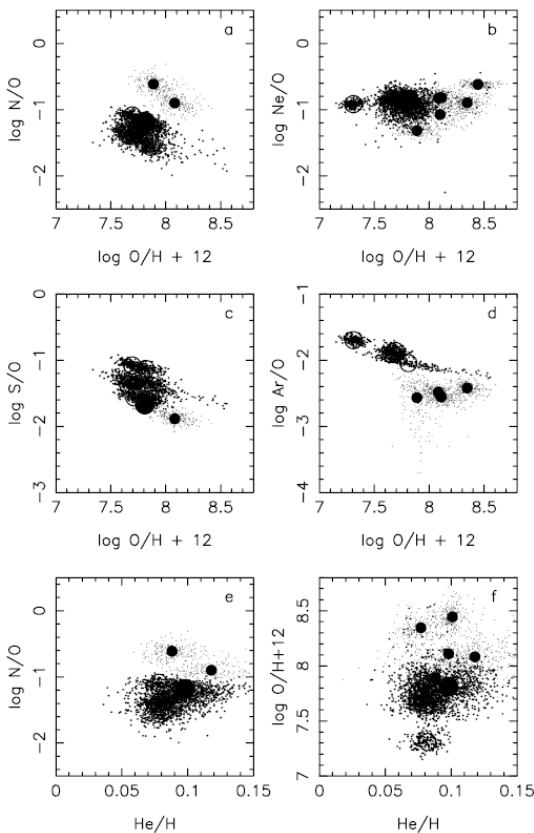
HIGHLIGHTS: this week in A&A

Volume 476-2 (December III 2007)

In section 6. Interstellar and circumstellar matter

"Effects of photophoresis on the evolution of transitional circumstellar disks", by F. Herrmann, A. V. Krivov, *A&A* 476, p. 829

Photophoresis, one of the lesser known forces in physics, acts together with stellar gravity, radiation pressure, and gas drag in the evolution of solids in transitional circumstellar disks. The authors show in particular that photophoresis may cause a belt of objects to form, but only in a given range of sizes and only around low-luminosity stars. The effects of photophoresis are noticeable for solids in the size range from several micrometers to several centimeters in older transitional disks or even several meters in younger, more gaseous disks.



In section 4. Extragalactic astronomy

"The chemical composition of planetary nebulae and HII regions in NGC 3109", by M. Peña, G. Stasinska, and M. Richer, *A&A* 476, p. 745

This is a study of HII region and planetary nebula abundances in the dwarf irregular galaxy NGC 3109. A surprising finding is that the HII region oxygen abundances, while lower than found in the planetary nebulae, are uniform over the galaxy.

In section 6. Interstellar and circumstellar matter

"A spectral line survey of Orion KL from 487-492 and 542-577 GHz with the Odin satellite. I. The observational data", by A.O.H. Olofsson, C.M. Persson, N. Koning, et al., *A&A* 476, p. 791

The Orion spectral line survey by Olofsson et al. is an important forerunner of future studies with HERSCHEL. Noteworthy are the tentative detections of ND and SH⁻ (the latter, if confirmed, adding to the small number of interstellar anions).