



Gemini/GMOS-II: Oxygen abundance gradients

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Resume: We presented an observational study about the oxygen abundance gradients in interacting galaxies. With the purpose of increase the number of interacting galaxies studies, we obtained observational data of eight close pairs in interaction to investigate the metallicity in these and comparing the results obtained for isolated objects in the literature. Spatial profiles of oxygen abundance in the gaseous phase along galaxy disks were obtained using calibrations based on strong emission-lines ($N2$ and $O3N2$). We found oxygen gradients significantly flatter for all galaxies in the close pairs of our sample than the ones found in isolated spiral galaxies. The flattening in the oxygen abundance gradients could be interpreted as being a chemical enrichment due to induced star formation by gas flows along the disks.

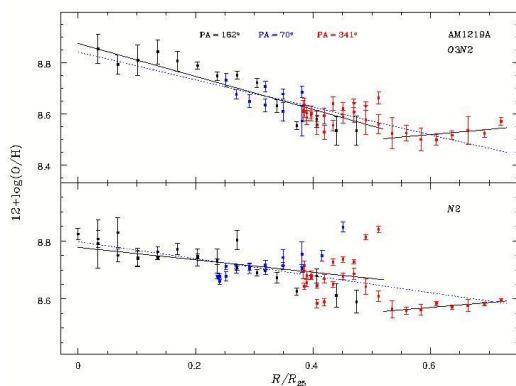


Figure 1. Result of the relationship between the parameter and $N2$ and $O3N2$ abundance of oxygen as a function of the radius given in units R/R_{25} to AM 1219A. The solid line represents the linear fit of the estimated data.

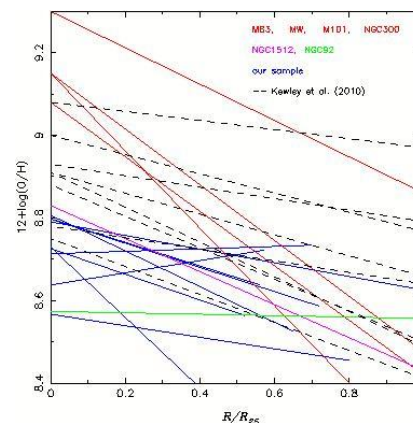


Figure 2- Metallicity gradients for galaxies in our sample interaction (blue line). For comparison, we show the metallicity gradients for isolated galaxies M101, Milk Way, M83 and NGC300 (colored line) and 8 galaxies interactions (black dashed line).