

[ㄷGC-37] Measuring gas metallicity of local AGNs using UV spectra

Jaejin Shin, Jong-Hak Woo

Astronomy program, Department of Physics and Astronomy, Seoul National University

As a tracer of star formation history, metallicity provides crucial information for understanding galaxy evolution. In the case AGN, gas metallicity is often derived from the flux ratio of UV emission lines,

i.e., NV1240 and CIV1549. To investigate the dependence of metallicity on AGN luminosity, black hole mass, and accretion rate, we measure NV1240 and CIV1549 line fluxes and derive gas metallicity of a sample of 73 local Seyfert 1 galaxies and QSOs, using archival UV spectra obtained with the HST and IUE. In this work, we will present the metallicity of local AGN and its relation with AGN properties.

[ㄷGC-38] AKARI near Infrared spectroscopy of luminous infrared galaxies

Jong Chul Lee^{1,2}, Ho Seong Hwang³, Myung Gyoon Lee²
¹KASI, ²SNU, ³CfA

We present the results of near infrared (2.5–5 micron) spectroscopy of nearby luminous infrared galaxies (LIRGs) using AKARI. The LIRG catalog is constructed from the cross-correlation between the Infrared Astronomical Satellite and the Sloan Digital Sky Survey data, and optically non-Seyfert type LIRGs are selected for main targets. We search for optically elusive active galactic nuclei (AGNs), based on the strengths of 3.3 micron polycyclic aromatic hydrocarbon emission and dust absorption features at 3–4 micron. We investigate the hidden AGN fraction as a function of the infrared luminosity and correlation between optical and near infrared star formation indicators.