Suzaku observation of Radio Arc region

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We report on the first *Suzaku* results of the Radio Arc region, $\sim 10'$ distant from the Galactic nucleus Sgr A*. With the XIS instruments, diffuse X-rays were detected from a dense molecular cloud G0.13$-$0.13. The X-ray spectrum exhibits emission lines at 6.40 keV and 7.06 keV, corresponding with the neutral iron K_α and K_β transition lines, respectively. An edge-like structure near at 7.11 keV is also detected. The continuum emission is clearly separated to a power-law and thermal components for the first time. The power-law component ($\Gamma \geq 2$) with heavy absorption, coupled to a large equivalent width (~ 1 keV) of iron K_α line is a common feature found in Sgr B2 and Sgr C; other giant molecular clouds near the Galactic center region. This supports the idea that G0.13$-$0.13 is an X-ray reflection nebula irradiated by strong external X-ray source(s). Electron temperature of the thermal component is $kT_e \sim 0.9$ keV, which is significantly lower than that of the hot GC diffuse emission ($kT_e \sim 6$ keV), but is in agreement with typical young/middle-aged supernova remnants.