These experiments yield basic information for kinetic models of the activation/deactivation step of thermal unimolecular reactions. For these highly excited vibrational levels where the high state density approaches a quasi-continuum and where state mixing is significant, a special technique based on oxygen fluorescence quenching (chemical timing)\(^a\) is used. Absolute cross sections are measured for vibrational energy transfer (VET) from a wide range of \(S_1\) levels of \(\text{para-difluorobenzene (pDFB)}\) as it undergoes single collisions with rare gases. The highest region so far studied has densities of about \(10^4\) levels per cm\(^{-1}\). The study involves preparing pDFB in a narrow vibrational region and monitoring fluorescence as VET with Ar occurs into a field of surrounding vibrational levels. All of the cross sections so far observed are less than the Lennard-Jones value that is often assumed for modeling the unimolecular problem. Some exceed hard sphere values.