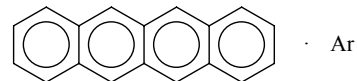
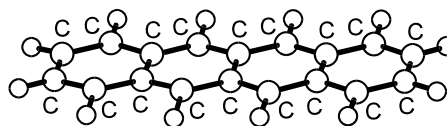


935
LIF $C_{18}H_{12}Ar$ **Naphthacene – argon (1/1)**Tetracene – argon (1/1)
(weakly bound complex) C_{2v} (effective symmetry class)
(large-amplitude motion)

State	\tilde{X}^1A_1
Energy [eV]	0.00
$r_0(C_{18}H_{12}\dots Ar)$ [Å]	3.42(10)



○ Ar



Argon was passed over tetracene heated to *ca.* 210 °C and expanded into a vacuum chamber. The Doppler line width was reduced to about 15

MHz by doubly skimming the molecular beam. Fluorescence was excited by a tunable dye laser with a line width of *ca.* 3 MHz. Rotational constants were obtained from the analysis of the resulting spectrum and are consistent with a structure with the Ar atom lying over the center of one of the inner rings in tetracene.

Szydłowska, I., Myszkiewicz, G., Meerts, W.L.: Chem. Phys. **283** (2002) 371.