

COMPARATIVE STUDIES of  $J' \leftarrow J = 1 \leftarrow 0$  CO LINE BROADENING PARAMETERS IN FREQUENCY AND TIME DOMAIN EXPERIMENT

H.MÄDER, A.GUARNIERI, J.DOOSE, N.NISSEN, *Institut für Physikalische Chemie, Universität Kiel, Olshausenstrasse 40, D-24098 Kiel, Germany*; V.MARKOV, G.GOLUBYATNIKOV, I.LEONOV, and A.F.KPUPNOV, *Institute of Applied Physics of Russian Academy of Science, Ul'yanova Street 46, 603600 Nizhny Novgorod, Russia*.

The pressure broadening of CO  $J' \leftarrow J = 1 \leftarrow 0$  line has been studied by two different techniques. The investigation was made with the perturber gases CO<sup>a</sup>, N<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, CO<sub>2</sub>, He, Ne, Ar, Kr, Xe at room temperature.

The two different methods of line broadening measurement and the results obtained in the time- and in the frequency-domain respectively will be discussed. Both methods gave results in a good agreement, for example, selfbroadening parameter  $C_w=3.43(2)$  MHz/Torr (time-domain) and  $C_w=3.425(6)$  (frequency-domain) were obtained.<sup>b</sup>

---

<sup>a</sup>H.Maeder, A.Guarnieri, J.Doose, N.Nissen, V.N.Markov, A.M.Stanyuk, A.F.Andrianov, V.N.Shanin and A.F.Krupnov, *Journ. Molec. Spectr.* **180**, 183-187 (1996)

<sup>b</sup>Support by DFG and RFBR grants is gratefully acknowledged