[illegible]

[illegible]
[illegible]
[illegible]
Albuquerque, NM [illegible]

[illegible]

[illegible] first [illegible] multi[illegible] [illegible] orient[illegible]
relax[illegible] [illegible] result of the sequential excit[illegible] [illegible]
laser [illegible] tunable dye laser. These double-[illegible] [illegible] experiments
possible [illegible] obtain multiphoton ionization spectra (MIS) of [illegible]
[illegible] of the molecule selected by the initial IR transition.

[illegible] work application of this [illegible] [illegible]
simplify [illegible] complex multiphoton ionization spectra of [illegible]
more [illegible] tively, and selectively detecting IR absorption [illegible]
[illegible] studying the dynamics of relaxation of molecul[illegible] [illegible]
rotation-vibration states.

*This work was supported by the United States Department of Energy

A [illegible] delay was added to the [illegible] path [illegible] that the dominant excitation pathway [illegible] [illegible] [illegible] ... Alter [illegible] ... effe[illegible] [illegible]

Results

[illegible] first preliminary results [illegible] [illegible] was chosen [illegible] of the existence of [illegible] [illegible]-detected two photon spectra[4] a[illegible] [illegible]photon [illegible][5] [illegible] addition to the unique complexity in its IR spectrum [illegible] the [illegible] [illegible] bands.

[illegible] initial experiments were performed [illegible] [illegible] pressure [illegible] to 200 [illegible] which broade[illegible] the IR [illegible] lines and eased the difficulty of setting the [illegible] [illegible] the IR laser [illegible] to excite the [illegible]-branch [illegible] first [illegible] [illegible] of the blue laser in the region [illegible] two-[illegible] [illegible] [illegible] that [illegible] transition [illegible] revealed [illegible] resonances

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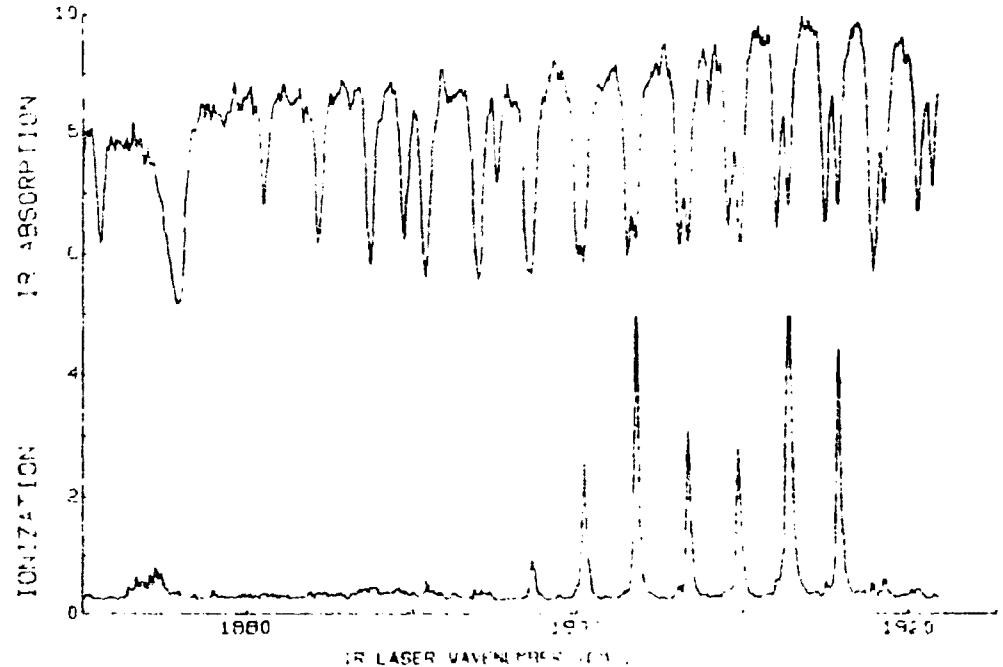

FIGURE 1 DOUBLE RESONANCE IONIZATION [illegible] OXIDE