PURE ROTATIONAL AND FINE-STRUCTURE TRANSITIONS OF NITRIC OXIDE (NO) IN THE FAR-INFRARED

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The absorption spectrum of the ^{14}NO and ^{15}NO isotopomers of nitric oxide in the far-infrared has been measured and analyzed. Pure rotational transitions up to J'' = 37-1/2 within the $^2\Pi_{1/2}$ and $^2\Pi_{3/2}$ spin components and several $^2\Pi_{3/2} \leftarrow {}^2\Pi_{1/2}$ fine-structure transitions were recorded within the ground vibrational state. A least-squares fit to these data combined with lambda-doubling transitions measured by previous workers has resulted in significant improvement in the accuracy of the rotational and fine-structure parameters of these two isotopomers. Improved values for the lambda-doubling and hyperfine constants will also be reported.