

List of the observed wavenumber of absorption bands of $^{15}\text{N}_2$.

B: Wavelength region of 85.580nm - 88.667nm

| Wavenumber | $b'(20) - X(0)$ | $b'(19) - X(0)$ |
|------------|-----------------|-------------------|
| | | $^{14}\text{N}_2$ |
| 116848.5 | R(6) | |
| 116844.5 | P(4) | |
| 116838.9 | R(7) | |
| 116834.1 | P(5) | |
| 116827.6 | R(8) | |
| 116822.0 | P(6) | |
| 116820.3 | | |
| 116817.9 | | |
| 116814.7 | R(9) | |
| 116808.4 | P(7) | |
| 116803.5 | | |
| 116800.0 | R(10) | |
| 116798.5 | | |
| 116796.1 | | |
| 116792.9 | P(8) | |
| 116788.2 | | |
| 116783.8 | R(11) | |
| 116780.8 | | |
| 116775.8 | P(9) | |
| 116770.2 | | |
| 116766.1 | R(12) | |
| 116762.2 | | |
| 116757.0 | P(10) | |
| 116746.9 | R(13) | |
| 116741.6 | | |
| 116738.5 | | |
| 116736.6 | P(11) | |
| 116731.8 | | |
| 116728.1 | | |
| 116726.1 | R(14) | |
| 116723.7 | | |
| 116714.6 | P(12) | |
| 116711.9 | | |
| 116704.1 | R(15) | |
| 116690.8 | P(13) | |
| 116684.5 | | R(1)R(0) |
| 116683.690 | | R(2) |
| 116680.3 | | R(3) |
| 116678.2 | | P(1) |
| 116675.2 | | R(4) |
| 116672.6 | | P(2) |
| 116668.1 | | R(5) |

| Wavenumber | $b'(20) - X(0)$ $^{15}\text{N}_2$ | $b'(19) - X(0)$ $^{14}\text{N}_2$ | $c'_4(6) - X(0)$ $^{14}\text{N}^{15}\text{N}$ | $b'(19) - X(0)$ $^{14}\text{N}^{15}\text{N}$ | $c'_4(6) - X(0)$ $^{15}\text{N}_2$ |
|------------|--------------------------------------|--------------------------------------|--|---|---------------------------------------|
| 116665.4 | P(14) | P(3) | | | |
| 116660.0 | | R(6) | | | |
| 116657.9 | | | | | |
| 116656.1 | | | R(4) | | |
| 116655.2 | | | R(3) | | |
| 116653.1 | | | R(2) | | |
| 116650.9 | | | R(1) | | |
| 116648.0 | | | R(0) | | |
| 116644.3 | | P(5) | | | |
| 116641.0 | | | P(1) | | |
| 116639.3 | P(15) | | | | |
| 116636.6 | | | P(2) | | |
| 116631.6 | | P(6) | P(3) | | |
| 116627.8 | | | | | |
| 116626.1 | | | P(4) | | |
| 116622.9 | | R(9) | | | |
| 116620.1 | | | P(5) | | |
| 116616.7 | | P(7) | | | |
| 116613.6 | | | P(6) | | |
| 116606.4 | | | P(7) | | |
| 116604.1 | | | | | |
| 116601.9 | | | | | |
| 116600.0 | | | | | |
| 116598.2 | | | P(8) | | |
| 116592.5 | | | | | |
| 116590.9 | | | | | |
| 116583.1 | | | | | |
| 116582.0 | | | | | |
| 116574.6 | | | | | |
| 116576.0 | | | | | |
| 116534.9 | | | | | |
| 116514.0 | | | | R(2)R(1)R(0) | |
| 116511.1 | | | | R(3) | |
| 116507.2 | | | | R(4) | |
| 116501.4 | | | | | |
| 116498.3 | | | | | R(2)-R(6) |
| 116496.1 | | | | | R(1)R(7) |
| 116494.1 | | | | | R(0) |
| 116492.8 | | | | | R(8) |
| 116489.8 | | | | | R(9) |
| 116487.4 | | | | | P(1) |
| 116486.1 | | | | | R(10) |
| 116485.9 | | | | | |
| 116482.8 | | | | | P(2) |
| 116477.7 | | | | | P(3) |
| 116471.8 | | | | | P(4) |
| 116465.2 | | | | | P(5) |
| 116462.2 | | | | | |

| Wavenumber | $c'_4(6) - X(0)$ $^{15}\text{N}_2$ | $b'(19) - X(0)$ $^{15}\text{N}_2$ |
|------------|---------------------------------------|--------------------------------------|
| 116458.0 | P(6) | |
| 116450.0 | P(7) | |
| 116444.9 | | |
| 116441.5 | P(8) | |
| 116436.5 | | |
| 116432.2 | P(9) | |
| 116422.4 | P(10) | |
| 116420.3 | | |
| 116411.9 | P(11) | |
| 116404.5 | | |
| 116400.8 | P(12) | |
| 116395.7 | | |
| 116384.3 | P(13) | |
| 116381.3 | | |
| 116379.7 | | |
| 116368.4 | | |
| 116366.5 | | |
| 116360.4 | | |
| 116354.7 | | |
| 116353.0 | | |
| 116345.3 | | |
| 116332.5 | | R(2)R(1) |
| 116331.5 | | R(3)R(0) |
| 116328.8 | | R(4) |
| 116328.2 | | |
| 116325.1 | | R(5)P(1) |
| 116320.1 | | R(6)P(2) |
| 116313.9 | | R(7)P(3) |
| 116306.6 | | P(4)R(8) |
| 116304.7 | | |
| 116302.7 | | |
| 116300.5 | | |
| 116297.9 | | P(5)R(9) |
| 116295.8 | | |
| 116293.5 | | |
| 116290.5 | | |
| 116287.6 | | P(6) |
| 116285.6 | | R(10) |
| 116282.4 | | |
| 116276.7 | | P(7) |
| 116274.4 | | R(11) |
| 116271.9 | | |
| 116270.4 | | |
| 116268.1 | | |
| 116264.2 | | P(8) |
| 116262.1 | | R(12) |
| 116261.2 | | |
| 116255.7 | | |

| Wavenumber | $b'(19) - X(0)$ ¹⁵ N ₂ | $b'(18) - X(0)$ ¹⁴ N ₂ | $b'(18) - X(0)$ ¹⁵ N ₂ |
|------------|---|---|---|
| 116250.7 | P(9) | | |
| 116247.1 | R(13) | | |
| 116236.1 | P(10) | | |
| 116233.4 | | | |
| 116226.5 | | | |
| 116220.0 | P(11) | | |
| 116209.9 | | R(2)R(1) | |
| 116208.8 | | R(3)R(0) | |
| 116205.5 | | R(4) | |
| 116201.6 | P(12) | R(5) | |
| 116197.0 | | P(2) | |
| 116196.1 | | R(6) | |
| 116190.0 | | P(3) | |
| 116181.7 | P(13) | P(4) | |
| 116176.4 | | | |
| 116161.8 | P(14) | | |
| 116119.6 | | | |
| 116116.6 | | | |
| 116112.0 | | | |
| 116110.6 | | | |
| 116105.1 | | | |
| 116102.6 | | | |
| 116100.7 | | | |
| 116099.3 | | | |
| 116095.8 | | | |
| 116092.2 | | | |
| 116091.8 | | | |
| 116083.9 | | | |
| 116079.8 | | | |
| 116077.2 | | | |
| 116072.7 | | | |
| 116069.9 | | | |
| 116064.1 | | | |
| 116061.5 | | | |
| 116052.9 | | | |
| 116043.8 | | | |
| 116036.4 | | | |
| 116027.9 | | | |
| 116014.1 | | | |
| 115997.3 | | | R(3)R(2)R(1) |
| 115995.7 | | | R(4)R(0) |
| 115992.9 | | | R(5) |
| 115989.1 | | | R(6)P(1) |
| 115984.4 | | | R(7)P(2) |
| 115978.4 | | | P(3)R(8) |
| 115971.4 | | | P(4)R(9) |
| 115963.5 | | | P(5)R(10) |
| 115954.7 | | | P(6) |
| 115953.9 | | | R(11) |

| Wavenumber | $b'(18) - X(0)$ $^{15}\text{N}_2$ | $c'_5(0) - X(0)$ $^{14}\text{N}_2$ | $c'_5(0) - X(0)$ $^{14}\text{N}^{15}\text{N}$ |
|------------|--------------------------------------|---------------------------------------|--|
| 115944.6 | P(7) | | |
| 115942.7 | R(12) | | |
| 115933.5 | | | |
| 115930.8 | R(13) | | |
| 115921.3 | P(9) | | |
| 115917.3 | R(14) | | |
| 115907.8 | P(10) | | |
| 115901.8 | R(15) | | |
| 115893.4 | P(11) | | |
| 115877.6 | P(12) | | |
| 115860.8 | P(13) | | |
| 115853.3 | R(2)R(1) | | |
| 115852.2 | | R(3)R(0) | |
| 115849.6 | | R(4) | |
| 115845.5 | | R(5)P(1) | |
| 115842.6 | P(14) | | |
| 115840.2 | | R(6)P(2) | |
| 115833.4 | | R(7)P(3) | |
| 115828.2 | | | |
| 115825.6 | | P(4) | |
| 115823.1 | P(15) | | |
| 115816.3 | | P(5) | |
| 115805.9 | | P(6) | |
| 115794.0 | | P(7) | |
| 115780.7 | | | |
| 115778.9 | | | |
| 115775.8 | | | |
| 115770.7 | | | |
| 115768.5 | | | |
| 115764.5 | | | |
| 115760.0 | | | |
| 115755.4 | | | |
| 115753.4 | | | |
| 115749.9 | | | |
| 115744.6 | | | |
| 115744.0 | | | |
| 115741.1 | | | |
| 115736.5 | | | R(2)R(1)R(0) |
| 115734.7 | | | R(3) |
| 115731.3 | | | R(4) |
| 115729.4 | | | P(1) |
| 115726.6 | | | R(5) |
| 115724.2 | | | P(2) |
| 115720.5 | | | R(6) |
| 115717.5 | | | P(3) |
| 115712.8 | | | R(7) |
| 115709.4 | | | P(4) |
| 115703.8 | | | R(8) |

| Wavenumber | $c_5'(0) - X(0)$ $^{14}\text{N}^{15}\text{N}$ |
|------------|--|
| 115699.9 | P(5) |
| 115693.1 | R(9) |
| 115689.0 | P(6) |
| 115681.3 | R(10) |
| 115676.6 | P(7) |
| 115668.170 | R(11) |
| 115662.857 | P(8) |
| 115654.670 | R(12) |
| 115647.2 | P(9) |
| 115630.6 | P(10) |
| 115626.7 | |
| 115612.5 | P(11) |
| 115608.8 | |
| 115606.5 | |
| 115604.0 | |
| 115599.0 | |
| 115597.0 | |
| 115592.6 | |
| 115587.5 | |
| 115581.1 | |
| 115578.8 | |
| 115576.9 | |
| 115574.2 | |
| 115573.7 | |
| 115571.7 | |
| 115567.5 | |
| 115566.7 | |
| 115564.6 | |
| 115560.4 | |
| 115558.9 | |
| 115556.2 | |
| 115554.3 | |
| 115550.7 | |
| 115548.1 | |
| 115545.4 | |
| 115542.5 | |
| 115541.3 | |
| 115538.1 | |
| 115534.9 | |
| 115530.7 | |
| 115528.7 | |
| 115525.3 | |
| 115523.1 | |
| 115520.7 | |
| 115519.9 | |
| 115516.0 | |
| 115513.6 | |
| 115511.3 | |
| 115508.0 | |

| Wavenumber | $b'(17) - X(0)$ $^{14}\text{N}_2$ |
|------------|--------------------------------------|
| 115504.5 | |
| 115501.0 | |
| 115496.4 | |
| 115494.3 | |
| 115487.8 | |
| 115483.7 | |
| 115477.3 | |
| 115470.9 | |
| 115464.5 | |
| 115460.8 | |
| 115456.6 | |
| 115454.2 | |
| 115451.5 | |
| 115445.0 | |
| 115443.6 | |
| 115441.6 | |
| 115439.2 | |
| 115436.6 | |
| 115433.7 | |
| 115430.7 | |
| 115427.1 | |
| 115423.4 | |
| 115420.8 | |
| 115418.3 | |
| 115412.4 | |
| 115408.9 | |
| 115403.5 | |
| 115396.1 | |
| 115384.5 | |
| 115381.5 | |
| 115376.9 | |
| 115371.4 | R(1)R(0) |
| 115370.6 | R(2) |
| 115367.3 | R(3) |
| 115365.3 | P(1) |
| 115362.3 | R(4) |
| 115360.8 | |
| 115359.4 | P(2) |
| 115355.6 | R(5) |
| 115351.5 | P(3) |
| 115349.4 | |
| 115347.2 | R(6) |
| 115344.0 | |
| 115342.6 | P(4) |
| 115338.3 | |
| 115336.4 | R(7) |
| 115331.3 | P(5) |
| 115329.0 | |
| 115324.8 | R(8) |

| Wavenumber | $b'(17) - X(0)$ $^{14}\text{N}_2$ | $b'(17) - X(0)$ $^{14}\text{N}^{15}\text{N}$ |
|------------|--------------------------------------|---|
| 115323.5 | | |
| 115318.6 | P(6) | |
| 115312.3 | | |
| 115311.2 | R(9) | |
| 115306.2 | | |
| 115303.9 | P(7) | |
| 115302.3 | | |
| 115295.3 | R(10) | |
| 115294.3 | | |
| 115287.2 | P(8) | |
| 115272.6 | | |
| 115269.2 | P(9) | |
| 115265.3 | | |
| 115249.3 | P(10) | |
| 115247.3 | | |
| 115241.4 | | |
| 115239.6 | | |
| 115218.9 | | R(1)R(0) |
| 115217.9 | | R(2) |
| 115214.4 | | R(3) |
| 115212.8 | | P(1) |
| 115209.5 | | R(4) |
| 115207.2 | | P(2) |
| 115202.7 | | R(5) |
| 115199.8 | | P(3) |
| 115194.2 | | R(6) |
| 115190.7 | | P(4) |
| 115184.0 | | R(7) |
| 115179.9 | | P(5) |
| 115172.0 | | R(8) |
| 115167.2 | | P(6) |
| 115158.1 | | |
| 115155.7 | | R(9) |
| 115152.9 | | P(7) |
| 115151.0 | | |
| 115148.7 | | |
| 115142.5 | | R(10) |
| 115136.6 | | P(8) |
| 115125.3 | | R(11) |
| 115118.6 | | P(9) |
| 115115.4 | | |
| 115113.8 | | |
| 115111.3 | | |
| 115109.2 | | |
| 115108.3 | | |
| 115105.4 | | |
| 115103.3 | | |
| 115100.8 | | |

| Wavenumber | $b'(17) - X(0)$ $^{14}\text{N}^{15}\text{N}$ | $b'(17) - X(0)$ $^{15}\text{N}_2$ |
|------------|---|--------------------------------------|
| 115098.8 | P(10) | |
| 115094.7 | | |
| 115091.0 | | |
| 115086.8 | | |
| 115086.3 | | |
| 115082.4 | | |
| 115077.4 | | |
| 115075.8 | P(11) | |
| 115072.3 | | |
| 115059.4 | | R(1)R(0) |
| 115058.3 | | R(2) |
| 115054.7 | | R(3) |
| 115053.9 | P(12) | P(1) |
| 115049.9 | | R(4) |
| 115048.0 | | P(2) |
| 115043.2 | | R(5) |
| 115040.8 | | P(3) |
| 115034.8 | | R(6) |
| 115032.0 | | P(4) |
| 115024.7 | | R(7) |
| 115021.4 | | P(5) |
| 115012.9 | | R(8) |
| 115009.1 | | P(6) |
| 114999.3 | | R(9) |
| 114995.0 | | P(7) |
| 114983.9 | | R(10) |
| 114979.2 | | P(8) |
| 114966.8 | | R(11) |
| 114961.7 | | P(9) |
| 114958.5 | | |
| 114957.4 | | |
| 114954.9 | | |
| 114952.3 | | |
| 114949.4 | | R(12) |
| 114948.1 | | |
| 114945.9 | | |
| 114943.4 | | |
| 114942.3 | | P(10) |
| 114938.1 | | |
| 114934.6 | | |
| 114933.9 | | R(13) |
| 114930.7 | | |
| 114927.7 | | |
| 114923.7 | | |
| 114921.3 | | P(11) |
| 114915.7 | | |
| 114911.8 | | R(14) |
| 114909.3 | | |

| Wavenumber | $b'(17) - X(0)$ $^{15}\text{N}_2$ | $b'(16) - X(0)$ $^{14}\text{N}_2$ |
|------------|--------------------------------------|--------------------------------------|
| 114906.2 | | |
| 114900.9 | | |
| 114898.2 | P(12) | |
| 114887.8 | | |
| 114886.2 | | |
| 114882.3 | | |
| 114878.5 | | |
| 114874.0 | P(13) | |
| 114869.6 | | |
| 114867.6 | | |
| 114864.1 | | |
| 114863.0 | | |
| 114856.5 | | |
| 114854.8 | | |
| 114852.4 | | |
| 114851.1 | | |
| 114848.3 | | |
| 114847.4 | | |
| 114844.8 | | |
| 114842.7 | | |
| 114841.7 | | |
| 114839.7 | | |
| 114837.7 | | |
| 114835.9 | | |
| 114833.6 | | |
| 114832.7 | | |
| 114830.1 | | |
| 114826.1 | | |
| 114823.3 | | |
| 114820.1 | | |
| 114817.9 | | |
| 114815.7 | | |
| 114807.0 | | |
| 114791.5 | | |
| 114785.1 | | |
| 114778.4 | | |
| 114771.3 | | |
| 114764.2 | | |
| 114758.1 | | R(2)R(1) |
| 114756.6 | | R(3)R(0) |
| 114753.3 | | R(4) |
| 114749.7 | | P(1) |
| 114748.2 | | R(5) |
| 114744.5 | | P(2) |
| 114741.1 | | R(6) |
| 114738.0 | | P(3) |
| 114732.1 | | R(7) |
| 114730.2 | | P(4) |

| Wavenumber | $b'(16) - X(0)$ $^{14}\text{N}_2$ | $b'(16) - X(0)$ $^{14}\text{N}^{15}\text{N}$ |
|------------|--------------------------------------|---|
| 114728.4 | | |
| 114720.8 | P(5)R(8) | |
| 114718.8 | | |
| 114709.5 | P(6) | |
| 114707.9 | R(9) | |
| 114696.5 | P(7) | |
| 114692.9 | R(10) | |
| 114690.6 | | |
| 114688.2 | | |
| 114681.5 | P(8) | |
| 114675.5 | R(11) | |
| 114671.7 | | |
| 114664.7 | P(9) | |
| 114664.0 | | |
| 114661.7 | | |
| 114659.3 | | |
| 114656.0 | R(12) | |
| 114652.7 | | |
| 114648.7 | | |
| 114645.5 | P(10) | |
| 114643.5 | | |
| 114637.2 | | |
| 114630.4 | | |
| 114624.1 | | R(2)R(1)R(0) |
| 114621.6 | | R(3) |
| 114619.9 | | |
| 114617.3 | | R(4)P(1) |
| 114616.0 | | |
| 114614.5 | | |
| 114611.7 | | P(2) |
| 114611.3 | | R(5) |
| 114608.4 | | |
| 114605.5 | | P(3) |
| 114603.0 | | R(6) |
| 114601.4 | P(12) | |
| 114597.0 | | P(4) |
| 114592.9 | | R(7) |
| 114590.1 | | |
| 114587.0 | | P(5) |
| 114587.0 | | |
| 114582.4 | | |
| 114580.9 | | R(8) |

| Wavenumber | $b'(16) - X(0)$ $^{14}\text{N}_2$ | $b'(16) - X(0)$ $^{14}\text{N}^{15}\text{N}$ | $c'_4(5) - X(0)$ $^{15}\text{N}_2$ | $b'(16) - X(0)$ $^{15}\text{N}_2$ |
|------------|--------------------------------------|---|---------------------------------------|--------------------------------------|
| 114575.0 | | P(6) | | |
| 114570.6 | | | | |
| 114566.9 | | R(9) | | |
| 114566.0 | | | | |
| 114564.0 | | | | |
| 114561.1 | | P(7) | | |
| 114557.1 | | | | |
| 114554.8 | | | | |
| 114551.0 | | | | |
| 114548.5 | P(14) | | | |
| 114543.3 | | | | |
| 114541.6 | | | | |
| 114541.0 | | | | |
| 114538.8 | | | | |
| 114535.0 | | | | |
| 114533.1 | | | | |
| 114530.5 | | | | |
| 114527.3 | | P(9) | | |
| 114525.4 | | | | |
| 114523.0 | | | | |
| 114519.6 | | | | |
| 114515.8 | | | | |
| 114513.9 | | | | |
| 114507.4 | | | R(3) | |
| 114506.7 | | | | |
| 114504.3 | | | R(2) | |
| 114502.2 | | | R(1) | |
| 114499.4 | | | R(0) | |
| 114497.1 | | | | |
| 114495.9 | | | | |
| 114492.4 | | | P(1) | |
| 114488.2 | | | P(2) | |
| 114483.5 | | | P(3) | |
| 114479.9 | | | | |
| 114478.4 | | | P(4) | |
| 114475.5 | | | | R(1)R(0) |
| 114474.5 | | | | R(2) |
| 114472.7 | | | P(5) | |
| 114471.0 | | | | |
| 114469.8 | | | | P(1) |
| 114466.1 | | | P(6) | R(4) |
| 114464.2 | | | | P(2) |
| 114459.5 | | | P(7) | R(5) |
| 114457.1 | | | | P(3) |
| 114451.9 | | | P(8) | |
| 114451.6 | | | | |
| 114450.8 | | | | R(6) |
| 114448.2 | | | | P(4) |

| Wavenumber | $c'_4(5) - X(0)$ $^{15}\text{N}_2$ | $b'(16) - X(0)$ $^{15}\text{N}_2$ |
|------------|---------------------------------------|--------------------------------------|
| 114443.9 | P(9) | |
| 114440.5 | | R(7) |
| 114437.6 | | P(5) |
| 114435.0 | P(10) | |
| 114433.0 | | |
| 114431.6 | | |
| 114428.5 | P(11) | R(8) |
| 114425.2 | | P(6) |
| 114420.6 | P(12) | |
| 114414.4 | | R(9) |
| 114411.0 | | P(7) |
| 114407.6 | | |
| 114405.0 | P(13) | |
| 114398.9 | | R(10) |
| 114395.0 | P(14) | P(8) |
| 114381.5 | P(15) | R(11) |
| 114377.3 | | P(9) |
| 114367.9 | P(16) | |
| 114362.2 | | R(12) |
| 114357.8 | | P(10) |
| 114351.1 | | |
| 114341.2 | | R(13) |
| 114336.5 | | P(11) |
| 114333.2 | | |
| 114332.3 | | |
| 114318.4 | | R(14) |
| 114313.4 | | P(12) |
| 114311.4 | | |
| 114293.7 | | R(15) |
| 114290.8 | | |
| 114288.6 | | P(13) |
| 114273.7 | | |
| 114271.9 | | |
| 114267.3 | | |
| 114263.6 | | |
| 114262.0 | | P(14) |
| 114246.7 | | |
| 114244.4 | | |
| 114239.4 | | |
| 114235.1 | | |
| 114233.6 | | P(15) |
| 114226.0 | | |
| 114213.8 | | |
| 114203.4 | | P(16) |
| 114199.3 | | |
| 114191.4 | | |

| Wavenumber | $b'(15) - X(0)$ $^{14}\text{N}_2$ | $b'(15) - X(0)$ $^{14}\text{N}^{15}\text{N}$ |
|------------|--------------------------------------|---|
| 114171.5 | R(1)R(0) | |
| 114170.2 | R(2) | |
| 114167.1 | R(3) | |
| 114165.5 | P(1) | |
| 114161.1 | R(4) | |
| 114159.6 | P(2) | |
| 114153.8 | R(5) | |
| 114151.8 | P(3) | |
| 114144.5 | R(6) | |
| 114142.2 | P(4) | |
| 114133.3 | R(7) | |
| 114130.8 | P(5) | |
| 114120.5 | R(8) | |
| 114117.5 | P(6) | |
| 114105.8 | R(9) | |
| 114102.2 | P(7) | |
| 114098.4 | | |
| 114096.0 | | |
| 114094.7 | | |
| 114091.9 | | |
| 114090.6 | | |
| 114089.0 | R(10) | |
| 114085.1 | P(8) | |
| 114079.1 | | |
| 114076.6 | | |
| 114070.3 | R(11) | |
| 114069.2 | | |
| 114066.2 | P(9) | |
| 114057.4 | | |
| 114054.8 | | |
| 114053.1 | | |
| 114051.0 | | |
| 114047.9 | | |
| 114045.1 | P(10) | |
| 114043.7 | | |
| 114041.6 | | |
| 114040.8 | | |
| 114035.4 | | |
| 114024.7 | | R(1)R(0) |
| 114023.3 | | R(2) |
| 114019.6 | | R(3) |
| 114019.1 | | P(1) |
| 114014.5 | | R(4) |
| 114013.2 | | P(2) |
| 114007.4 | | R(5) |
| 114005.7 | | P(3) |
| 113998.6 | | R(6) |
| 113996.3 | | P(4) |

| Wavenumber | $b'(15) - X(0)$ $^{14}\text{N}^{15}\text{N}$ | $b'(15) - X(0)$ $^{15}\text{N}_2$ |
|------------|---|--------------------------------------|
| 113987.9 | R(7) | |
| 113985.2 | P(5) | |
| 113975.3 | R(8) | |
| 113972.3 | P(6) | |
| 113961.0 | R(9) | |
| 113957.5 | P(7) | |
| 113944.7 | R(10) | |
| 113940.9 | P(8) | |
| 113933.5 | | |
| 113931.4 | | |
| 113929.8 | | |
| 113927.2 | | |
| 113926.4 | R(11) | |
| 113922.3 | P(9) | |
| 113920.3 | | |
| 113914.7 | | |
| 113914.1 | | |
| 113912.6 | | |
| 113910.9 | | |
| 113906.8 | | |
| 113905.3 | | |
| 113902.8 | P(10) | |
| 113894.0 | | |
| 113892.0 | | |
| 113885.0 | | |
| 113880.4 | P(11) | |
| 113878.1 | | |
| 113873.3 | | R(1)R(0) |
| 113872.0 | | R(2) |
| 113868.2 | | R(3)P(1) |
| 113863.3 | | R(4) |
| 113862.1 | | P(2) |
| 113856.6 | P(12) | R(5) |
| 113854.9 | | P(3) |
| 113848.0 | | R(6) |
| 113845.8 | | P(4) |
| 113837.7 | | R(7) |
| 113835.0 | | P(5) |
| 113829.2 | P(13) | |
| 113825.5 | | R(8) |
| 113822.5 | | P(6) |
| 113811.7 | | R(9) |
| 113808.3 | | P(7) |
| 113802.6 | | |
| 113796.1 | | R(10) |
| 113792.3 | | P(8) |
| 113788.5 | | |
| 113785.7 | | |

| Wavenumber | $b'(15) - X(0)$ $^{15}\text{N}_2$ | $b'(14) - X(0)$ $^{14}\text{N}_2$ |
|------------|--------------------------------------|--------------------------------------|
| 113783.8 | | |
| 113782.1 | | |
| 113778.7 | R(11) | |
| 113774.5 | P(9) | |
| 113759.6 | R(12) | |
| 113755.0 | P(10) | |
| 113745.3 | | |
| 113743.9 | | |
| 113741.4 | | |
| 113738.6 | R(13) | |
| 113733.8 | P(11) | |
| 113726.8 | | |
| 113720.4 | | |
| 113716.0 | R(14) | |
| 113710.8 | P(12) | |
| 113691.4 | R(15) | |
| 113685.9 | P(13) | |
| 113670.7 | | |
| 113665.3 | R(16) | |
| 113664.2 | | |
| 113659.4 | P(14) | |
| 113637.0 | R(17) | |
| 113631.1 | P(15) | |
| 113601.1 | | |
| 113549.7 | | |
| 113547.8 | | |
| 113545.9 | | |
| 113543.9 | | |
| 113542.3 | | R(1)R(0) |
| 113541.1 | | R(2) |
| 113537.5 | | R(3) |
| 113536.4 | | P(1) |
| 113532.1 | | R(4) |
| 113530.3 | | P(2) |
| 113528.5 | | |
| 113524.8 | | R(5) |
| 113522.6 | | P(3) |
| 113520.4 | | |
| 113518.7 | | |
| 113515.8 | | R(6) |
| 113513.1 | | P(4) |
| 113508.8 | | |
| 113506.8 | | |
| 113504.8 | | R(7) |
| 113501.6 | | P(5) |
| 113495.5 | | |
| 113493.1 | | |
| 113492.1 | | R(8) |

| Wavenumber | $b'(14) - X(0)$ $^{14}\text{N}_2$ | $b'(14) - X(0)$ $^{14}\text{N}^{15}\text{N}$ |
|------------|--------------------------------------|---|
| 113488.3 | P(6) | |
| 113477.6 | R(9) | |
| 113473.2 | P(7) | |
| 113460.8 | R(10) | |
| 113456.2 | P(8) | |
| 113437.3 | P(9) | |
| 113416.5 | P(10) | |
| 113401.3 | | R(1)R(0) |
| 113399.9 | | R(2) |
| 113396.5 | | R(3) |
| 113395.5 | | P(1) |
| 113391.3 | | R(4) |
| 113389.8 | | P(2) |
| 113384.4 | | R(5) |
| 113382.2 | | P(3) |
| 113381.1 | | |
| 113379.0 | | |
| 113377.1 | | |
| 113375.5 | | R(6) |
| 113372.9 | | P(4) |
| 113371.9 | | |
| 113365.7 | | |
| 113364.8 | | R(7) |
| 113361.7 | | P(5) |
| 113356.7 | | |
| 113354.9 | | |
| 113352.5 | | R(8) |
| 113348.9 | | P(6) |
| 113345.5 | | |
| 113343.7 | | |
| 113340.5 | | |
| 113338.4 | | |
| 113334.2 | | P(7) |
| 113332.6 | | |
| 113330.8 | | |
| 113329.4 | | |
| 113322.3 | | |
| 113317.8 | | P(8) |
| 113315.8 | | |
| 113313.4 | | |
| 113310.4 | | |
| 113306.0 | | |
| 113304.7 | | |
| 113304.3 | | |
| 113301.1 | | |
| 113299.3 | | P(9) |
| 113295.4 | | |

| Wavenumber | $b'(14) - X(0)$ $^{14}\text{N}^{15}\text{N}$ | $b'(14) - X(0)$ $^{15}\text{N}_2$ |
|------------|---|--------------------------------------|
| 113293.7 | | |
| 113291.9 | | |
| 113287.5 | | |
| 113285.0 | | |
| 113282.4 | | |
| 113280.4 | | |
| 113279.5 | P(10) | |
| 113277.3 | | |
| 113275.0 | | |
| 113257.0 | | R(1)R(0) |
| 113255.7 | | R(2) |
| 113252.2 | | R(3) |
| 113251.3 | | P(1) |
| 113247.2 | | R(4) |
| 113245.6 | | P(2) |
| 113240.5 | | R(5) |
| 113238.4 | | P(3) |
| 113234.2 | | |
| 113232.0 | | R(6) |
| 113229.5 | | P(4) |
| 113225.7 | | |
| 113221.8 | | R(7) |
| 113218.8 | | P(5) |
| 113209.8 | | R(8) |
| 113206.3 | | P(6) |
| 113196.2 | | R(9) |
| 113192.2 | | P(7) |
| 113189.0 | | |
| 113187.2 | | |
| 113184.8 | | |
| 113184.2 | | |
| 113182.1 | | |
| 113180.7 | | R(10) |
| 113176.3 | | P(8) |
| 113174.6 | | |
| 113172.3 | | |
| 113170.6 | | |
| 113166.7 | | |
| 113163.7 | | R(11) |
| 113161.1 | | |
| 113158.7 | | P(9) |
| 113154.5 | | |
| 113151.0 | | |
| 113150.3 | | |
| 113147.6 | | |
| 113144.7 | | R(12) |
| 113139.3 | | P(10) |
| 113132.0 | | |

| Wavenumber | $b'(14) - X(0)$ $^{15}\text{N}_2$ | $o_3(4) - X(0)$ $^{15}\text{N}_2$ |
|------------|--------------------------------------|--------------------------------------|
| 113124.1 | R(13) | |
| 113118.2 | P(11) | |
| 113102.0 | R(14) | |
| 113095.3 | P(12) | |
| 113078.9 | R(15) | |
| 113073.3 | | R(4)-R(7) |
| 113071.7 | | R(3) |
| 113070.4 | P(13) | R(2) |
| 113067.9 | | R(1) |
| 113066.6 | | |
| 113065.2 | | R(0) |
| 113061.3 | | Q(1) |
| 113060.5 | | Q(2) |
| 113058.9 | | Q(3) |
| 113056.8 | | Q(4) |
| 113054.2 | | Q(5)P(2) |
| 113051.0 | | Q(6) |
| 113049.2 | | P(3) |
| 113047.4 | | Q(7) |
| 113044.6 | P(14) | P(4) |
| 113044.0 | | Q(8) |
| 113043.7 | | |
| 113038.4 | | Q(9)P(5) |
| 113034.7 | | |
| 113033.6 | | Q(10) |
| 113031.9 | | P(6) |
| 113027.8 | | Q(11) |
| 113025.1 | | P(7) |
| 113021.7 | | Q(12) |
| 113019.7 | | |
| 113017.8 | | P(8) |
| 113016.7 | P(15) | |
| 113015.1 | | Q(13) |
| 113010.0 | | P(9) |
| 113007.8 | | Q(14) |
| 113001.7 | | P(10) |
| 113000.6 | | Q(15) |
| 112992.9 | | P(11) |
| 112987.2 | P(16) | |
| 112983.5 | | P(12) |
| 112973.7 | | |
| 112971.4 | | |
| 112969.7 | | |
| 112967.4 | | |
| 112966.1 | | |
| 112963.6 | | |
| 112960.6 | | |
| 112958.1 | | |
| 112956.5 | P(17) | |

| Wavenumber | $b'(13) - X(0)$ $^{14}\text{N}_2$ |
|------------|--------------------------------------|
| 112953.4 | |
| 112952.4 | |
| 112950.7 | |
| 112945.3 | |
| 112943.0 | |
| 112941.3 | |
| 112935.0 | |
| 112933.0 | |
| 112930.4 | |
| 112920.4 | |
| 112918.3 | |
| 112916.3 | |
| 112910.1 | R(1)R(0) |
| 112909.8 | R(2) |
| 112907.5 | R(3) |
| 112905.4 | |
| 112903.8 | R(4)P(1) |
| 112899.0 | R(5) |
| 112898.1 | P(2) |
| 112893.9 | R(6) |
| 112890.8 | P(3) |
| 112885.6 | |
| 112882.0 | P(4) |
| 112871.8 | P(5) |
| 112867.0 | |
| 112865.9 | |
| 112863.4 | |
| 112860.3 | P(6) |
| 112855.1 | R(8) |
| 112847.2 | P(7)R(9) |
| 112837.9 | |
| 112834.3 | P(8) |
| 112824.4 | |
| 112812.8 | |
| 112809.1 | |
| 112807.5 | |
| 112805.1 | |
| 112804.6 | |
| 112801.6 | |
| 112799.1 | |
| 112797.8 | |
| 112796.4 | |
| 112794.3 | |
| 112792.3 | |
| 112790.5 | |
| 112789.5 | |
| 112783.8 | |
| 112781.6 | |