Supplemental Document

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One-dimensional air temperature measurements by air resonance enhanced multiphoton Ionization thermometry (ART): supplement

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One Dimensional Air Temperature Measurements by Air Resonance Enhanced Multiphoton Ionization Thermometry (ART): supplemental document

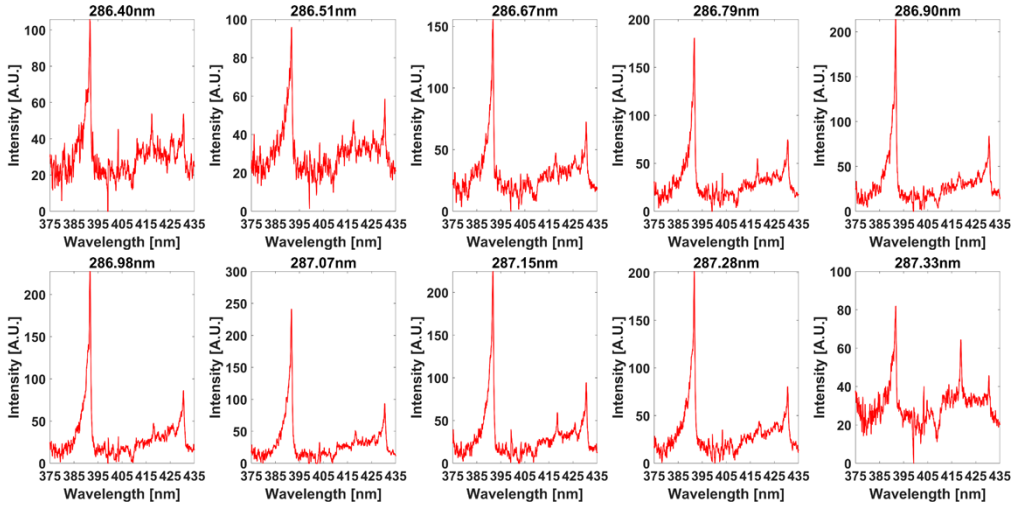

Figure S1: N_2^+ emission spectra at 180K for selected resonant O_2 wavelengths.

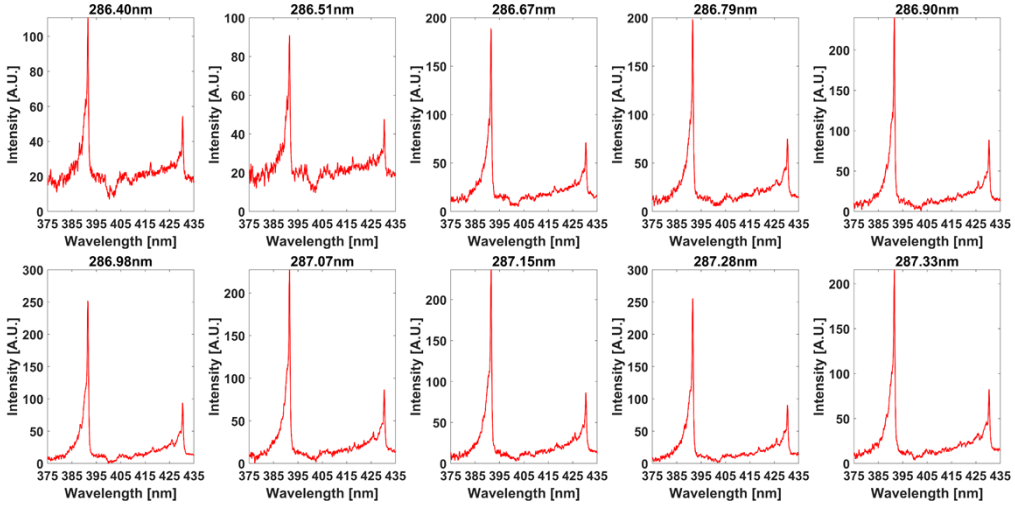

Figure S2: N_2^+ emission spectra at 233K for selected resonant O_2 wavelengths.

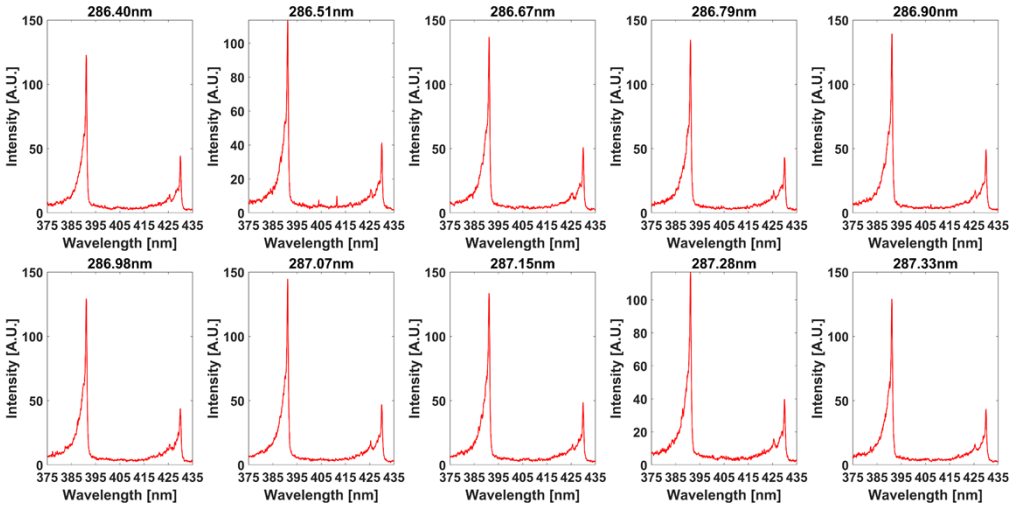

Figure S3: N_2^+ emission spectra at 367K for selected resonant O_2 wavelengths.

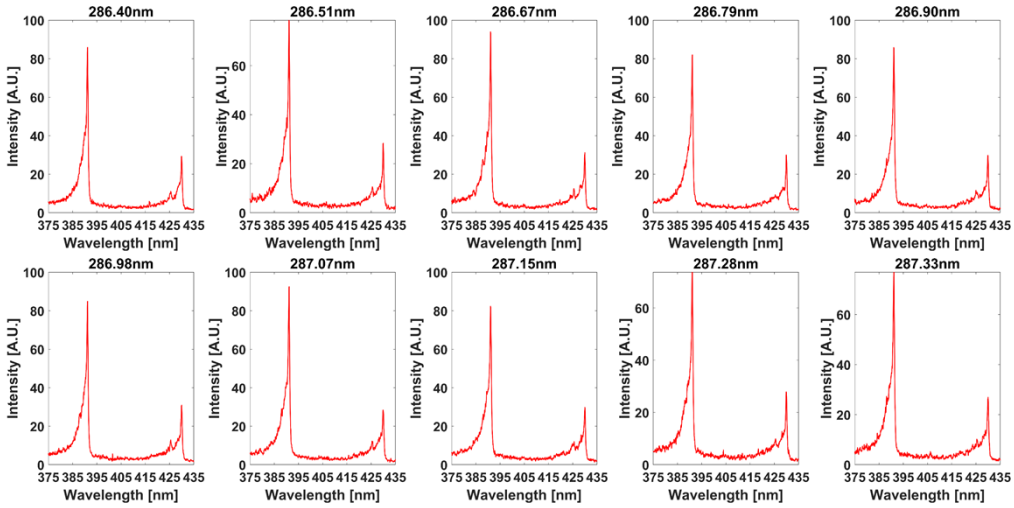

Figure S4: N_2^+ emission spectra at 460K for selected resonant O_2 wavelengths.

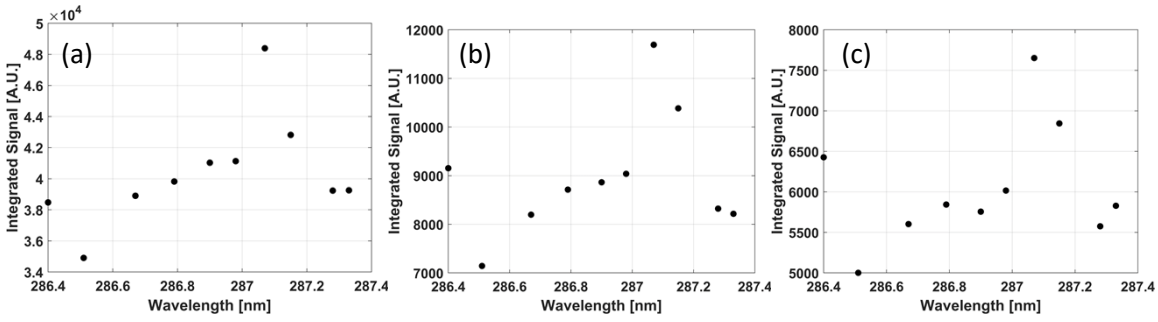

Figure S5: Integrated peak signal values for Δv_0, ~390nm (a), Δv_2, ~425nm (b), Δv_1, ~430nm (c) at 180K.

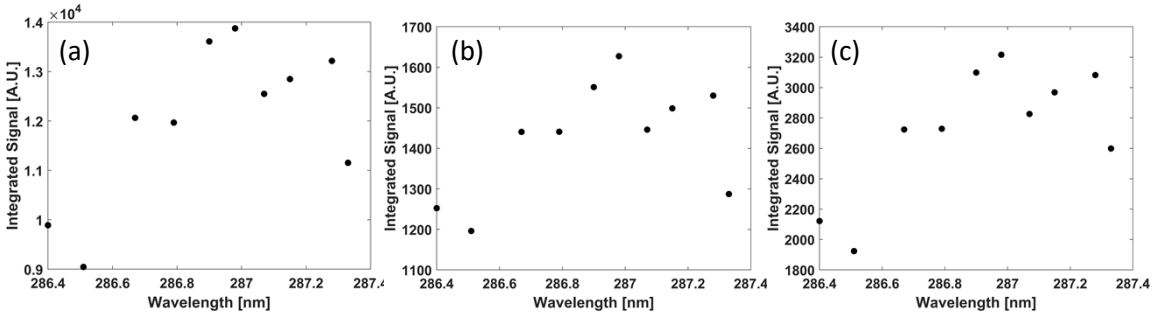

Figure S6: Integrated peak signal values for Δv_0, ~390nm (a), Δv_2, ~425nm (b), Δv_1, ~430nm (c) at 233K.

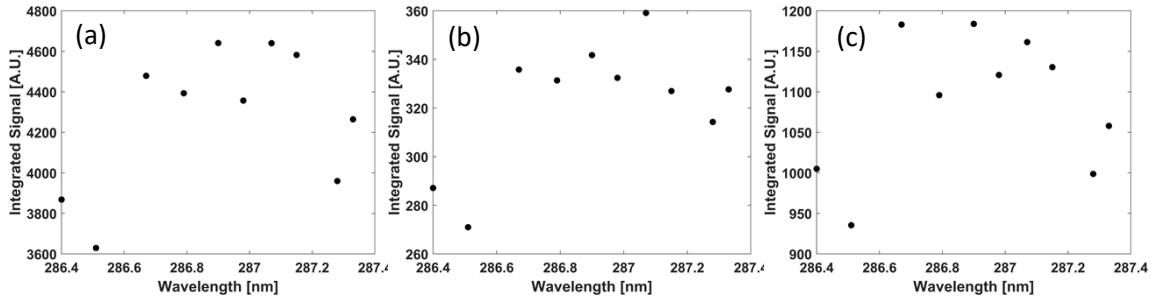

Figure S7: Integrated peak signal values for Δv_0, ~390nm (a), Δv_2, ~425nm (b), Δv_1, ~430nm (c) at 367K.

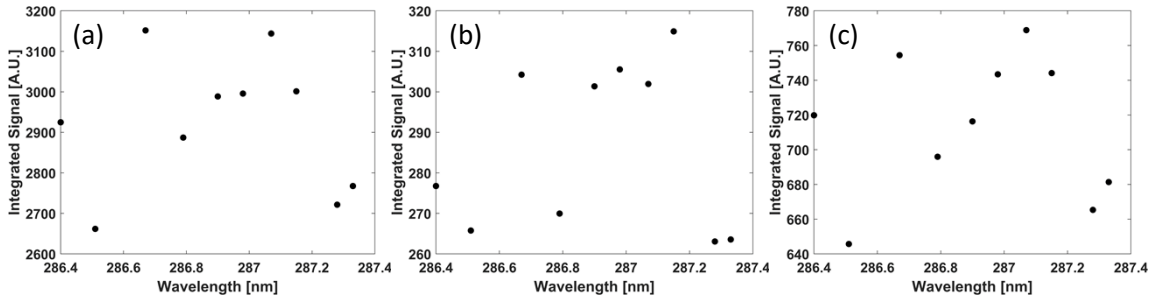

Figure S8: Integrated peak signal values for Δv_0, ~390nm (a), Δv_2, ~425nm (b), Δv_1, ~430nm (c) at 460K.

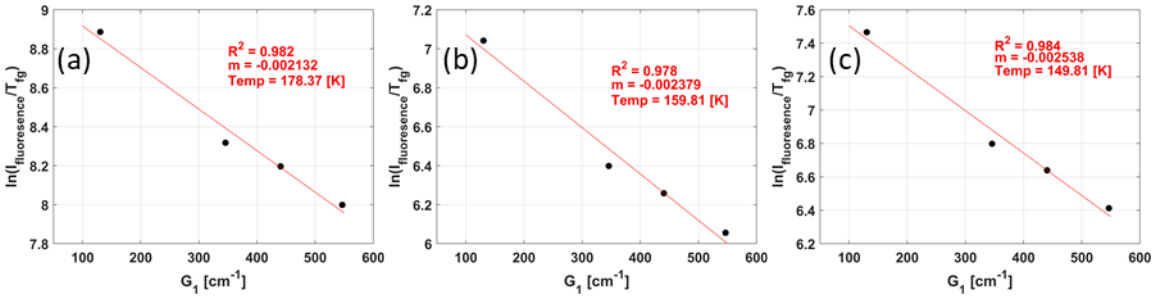

Figure S9: Temperature determination by N_2^+ emissions at Δv_0 (a), Δv_2 (b), and Δv_1 (c) for actual temperature of 180K.

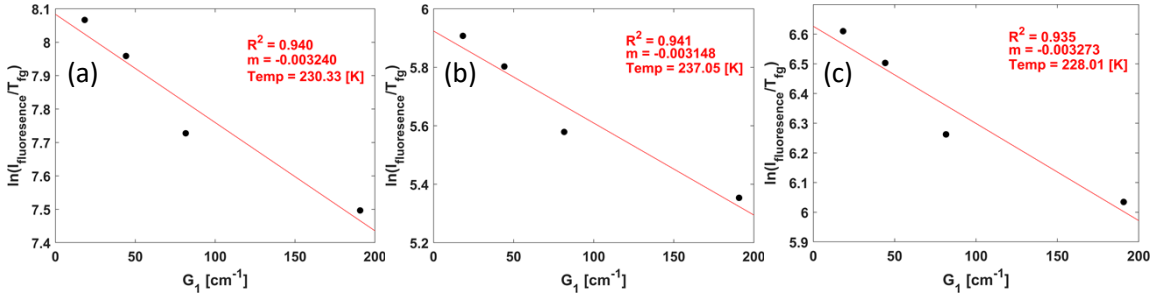

Figure S10: Temperature determination by N_2^+ emissions at Δv_0 (a), Δv_2 (b), and Δv_1 (c) for actual temperature of 233K.

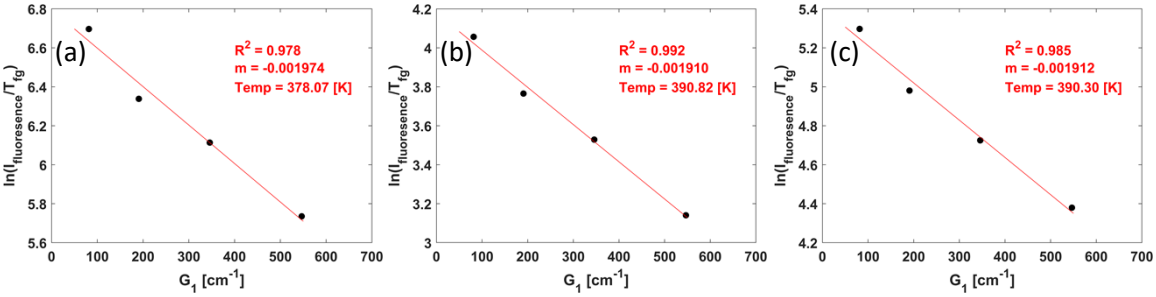

Figure S11: Temperature determination by N_2^+ emissions at Δv_0 (a), Δv_2 (b), and Δv_1 (c) for actual temperature of 367K.

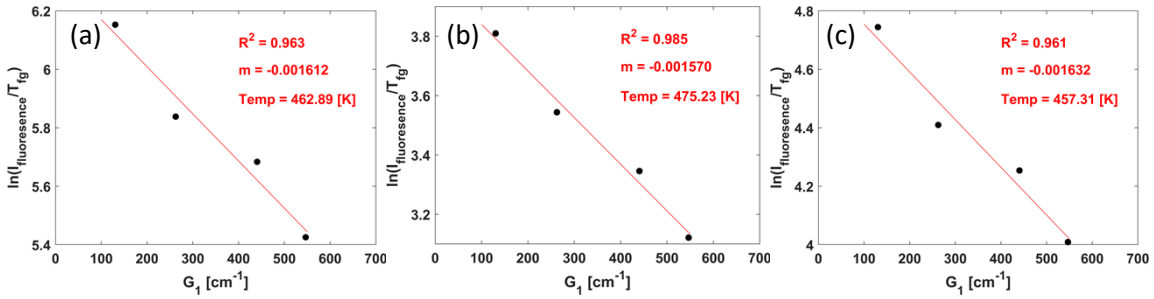

Figure S12: Temperature determination by N_2^+ emissions at Δv_0 (a), Δv_2 (b), and Δv_1 (c) for actual temperature of 460K.