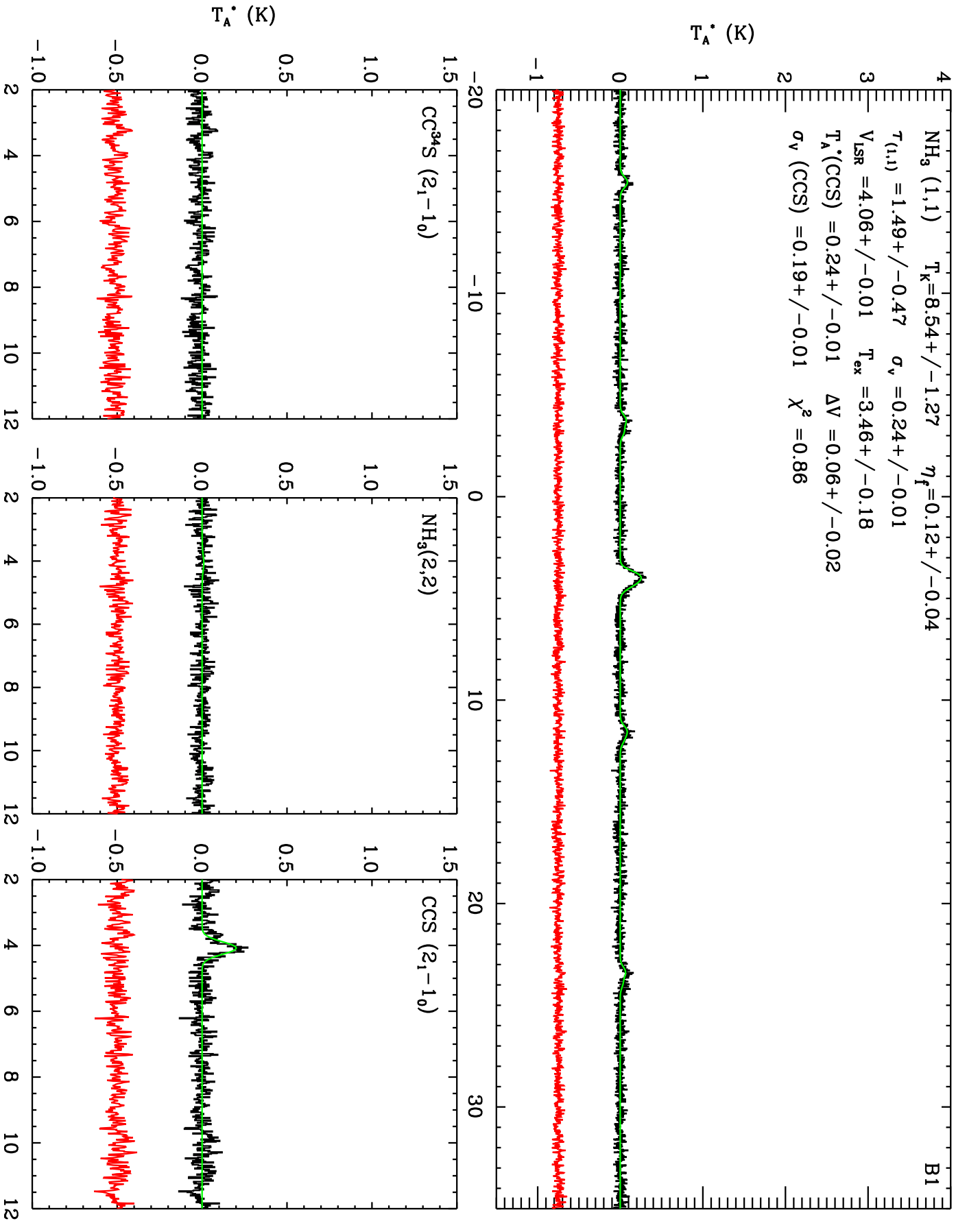
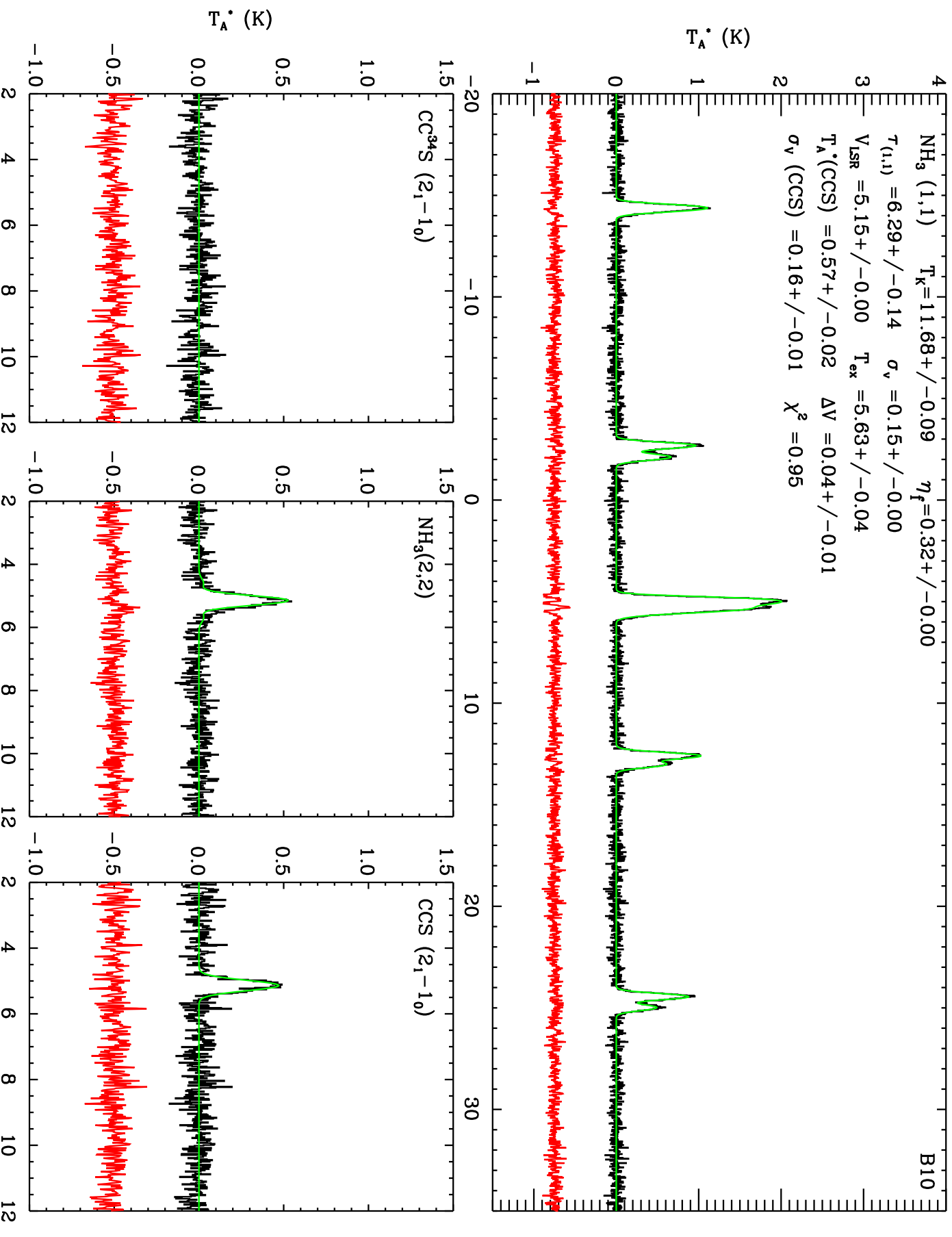
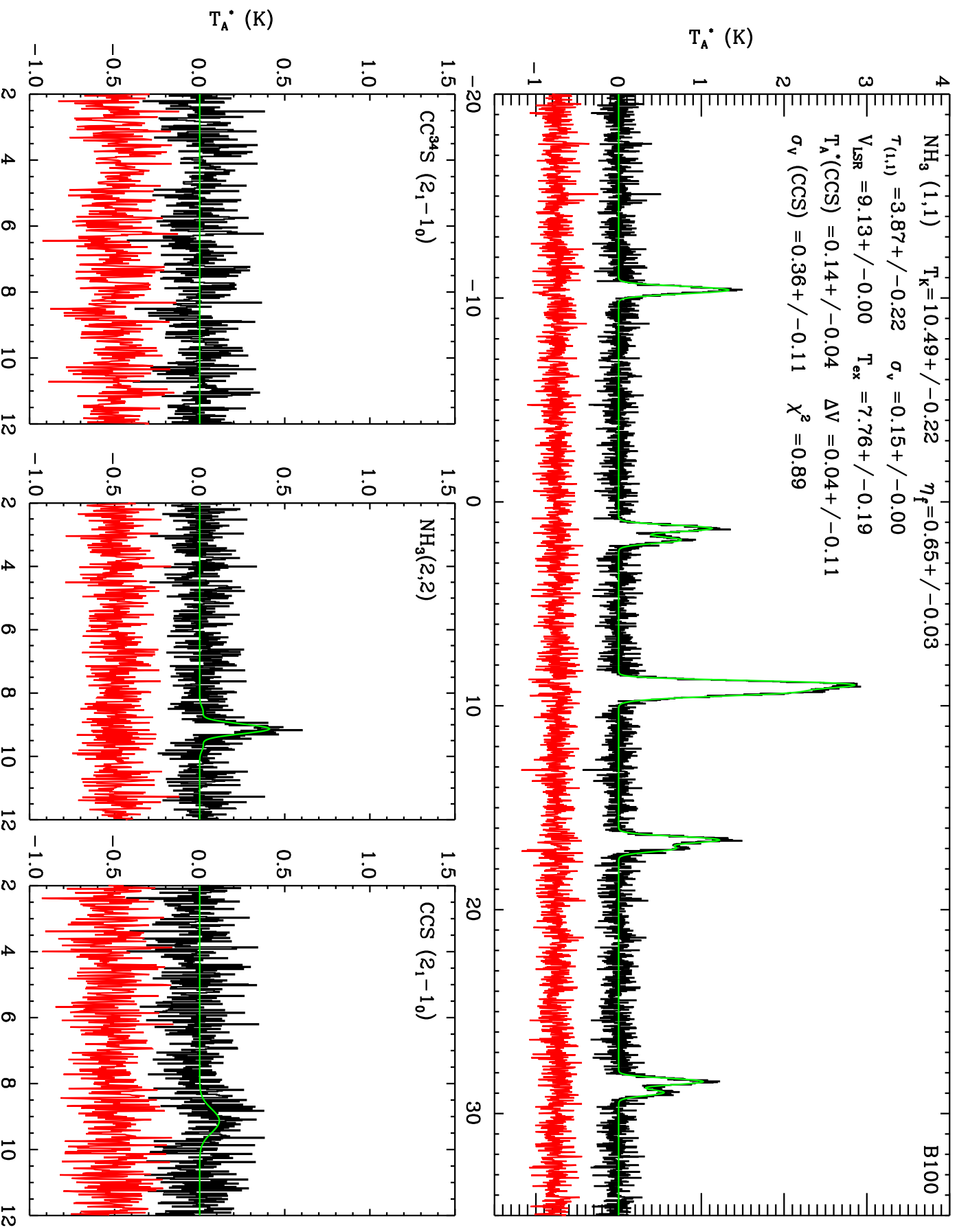


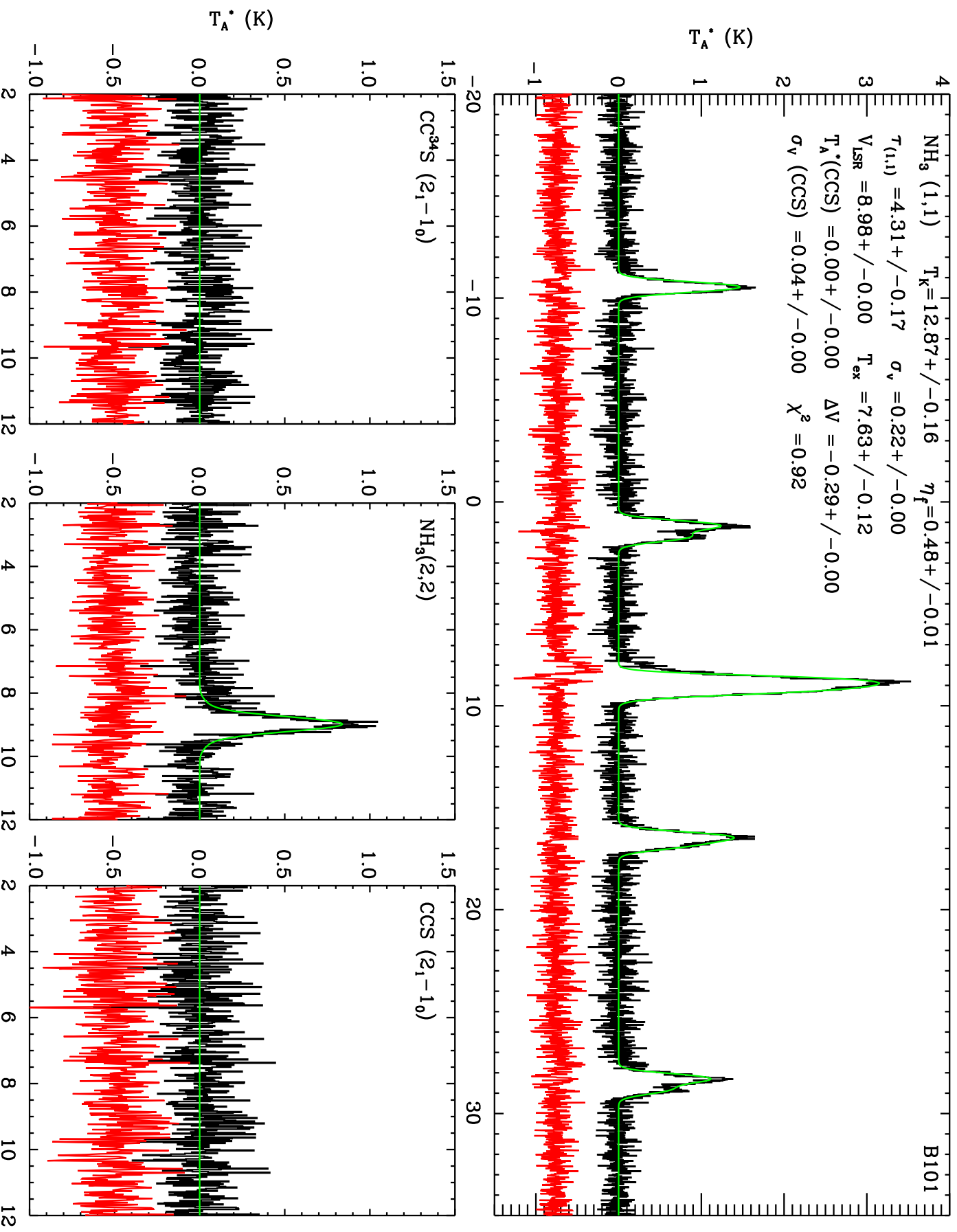
$\text{NH}_3(1,1)$ $T_K = 8.54 + / - 1.27$ $\eta_f = 0.12 + / - 0.04$
 $T_{(1,1)} = 1.49 + / - 0.47$ $\sigma_v = 0.24 + / - 0.01$
 $V_{\text{LSR}} = 4.06 + / - 0.01$ $T_{\text{ex}} = 3.46 + / - 0.18$
 $T_A^*(\text{CCS}) = 0.24 + / - 0.01$ $\Delta V = 0.06 + / - 0.02$
 $\sigma_v(\text{CCS}) = 0.19 + / - 0.01$ $\chi^2 = 0.86$

B1



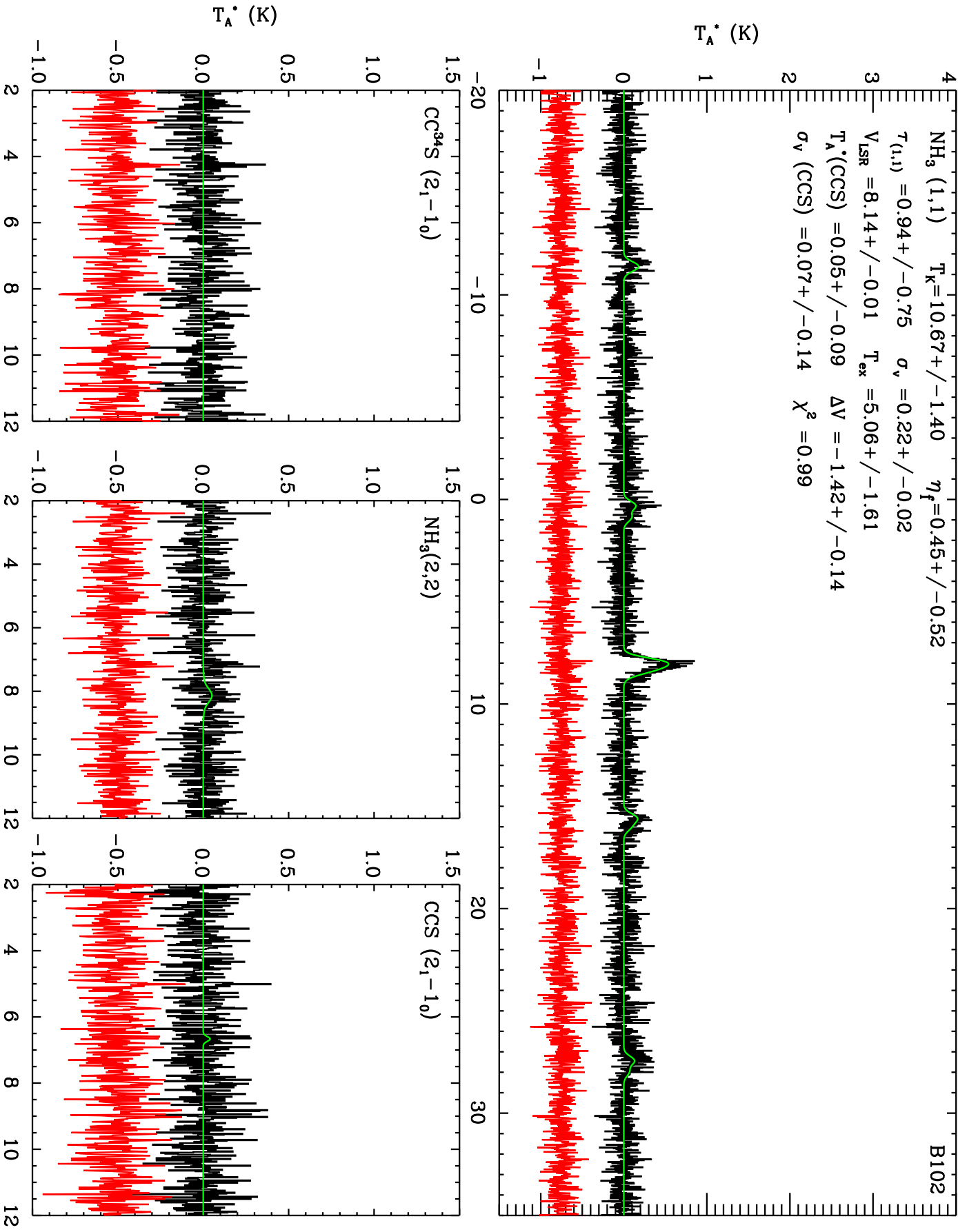






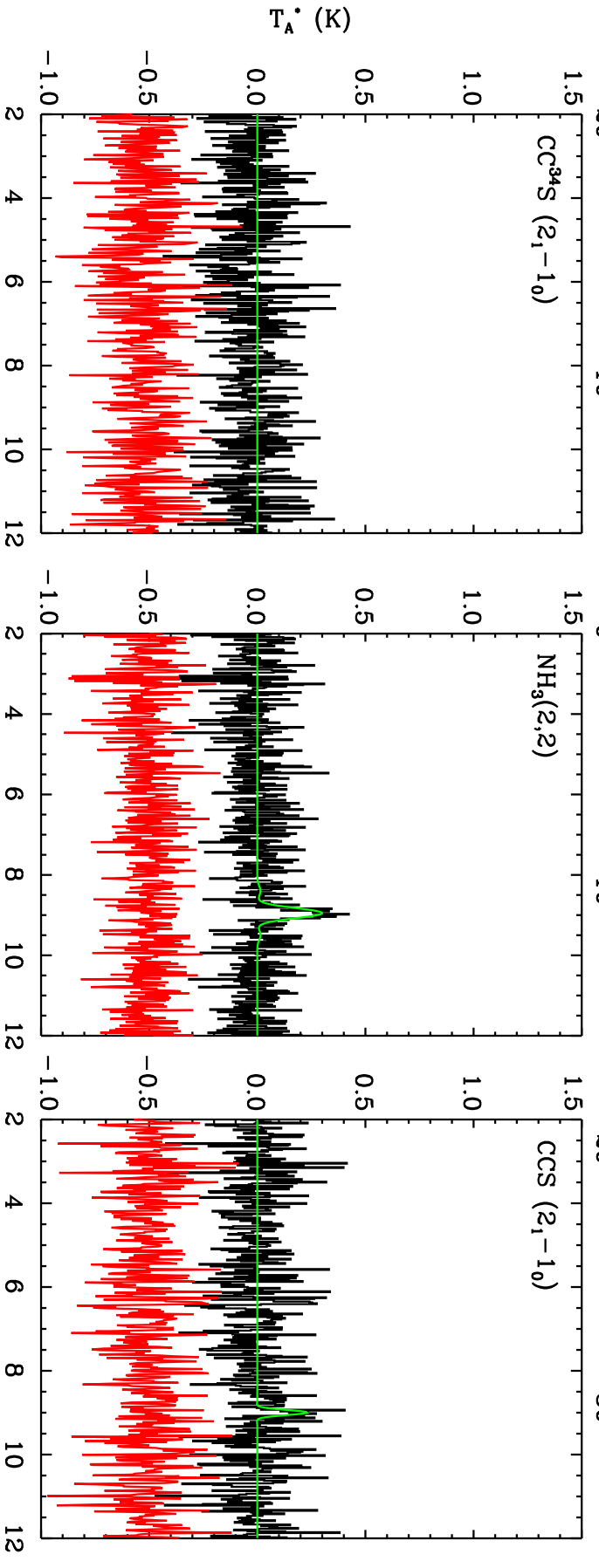
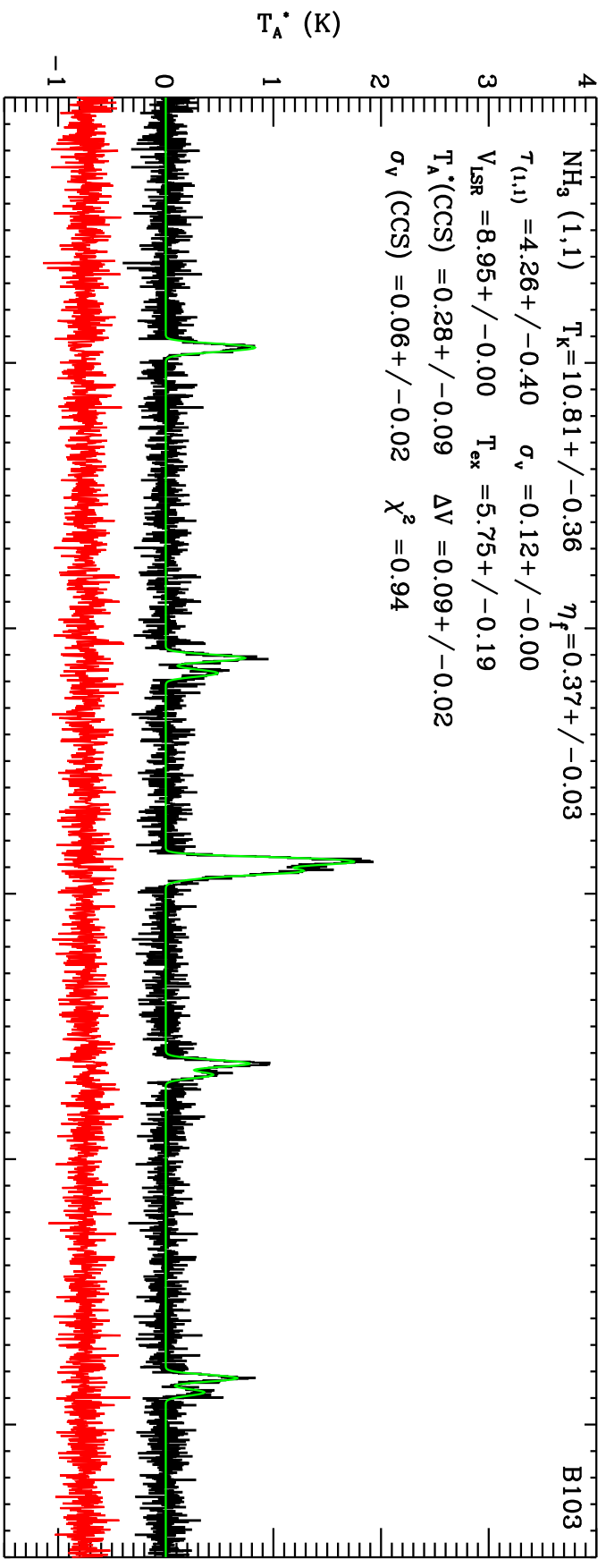
B102

$\text{NH}_3(1,1)$ $T_K = 10.67 \pm 1.40$ $\eta_f = 0.45 \pm 0.52$
 $T_{(1,1)} = 0.94 \pm 0.75$ $\sigma_v = 0.22 \pm 0.02$
 $V_{\text{LSR}} = 8.14 \pm 0.01$ $T_{\text{ex}} = 5.06 \pm 1.61$
 $T_A^*(\text{CCS}) = 0.05 \pm 0.09$ $\Delta V = -1.42 \pm 0.14$
 $\sigma_v(\text{CCS}) = 0.07 \pm 0.14$ $\chi^2 = 0.99$



$\text{NH}_3(1,1)$ $T_K = 10.81 \pm 0.36$ $\eta_f = 0.37 \pm 0.03$
 $T_{(1,1)} = 4.26 \pm 0.40$ $\sigma_v = 0.12 \pm 0.00$
 $V_{\text{LSR}} = 8.95 \pm 0.00$ $T_{\text{ex}} = 5.75 \pm 0.19$
 $T_A^*(\text{CCS}) = 0.28 \pm 0.09$ $\Delta V = 0.09 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.06 \pm 0.02$ $\chi^2 = 0.94$

B103



B104

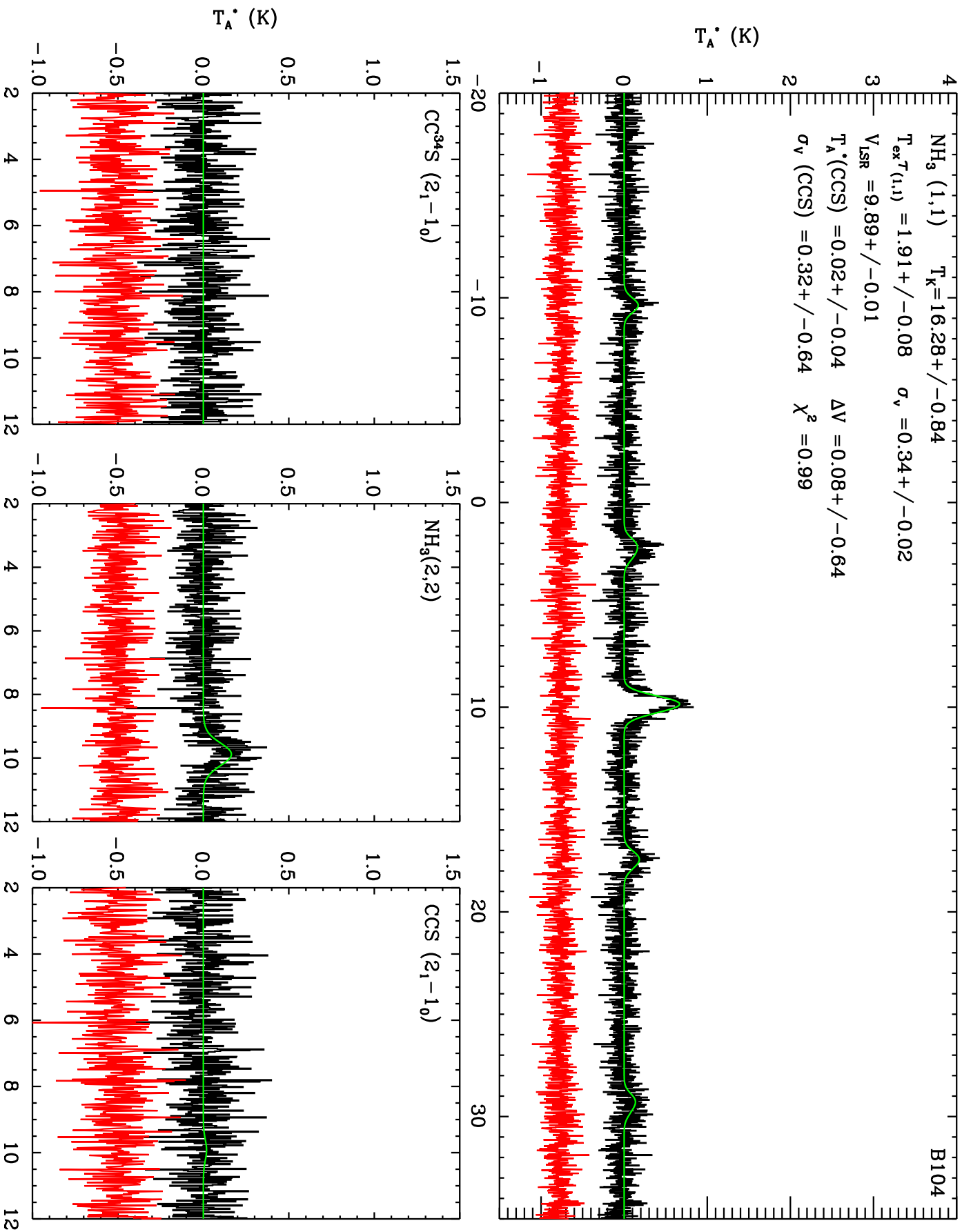
NH₃ (1,1) $T_K = 16.28 + / - 0.84$

$T_{\text{ex}}^{T(1,1)} = 1.91 + / - 0.08$ $\sigma_v = 0.34 + / - 0.02$

$V_{\text{LSR}} = 9.89 + / - 0.01$

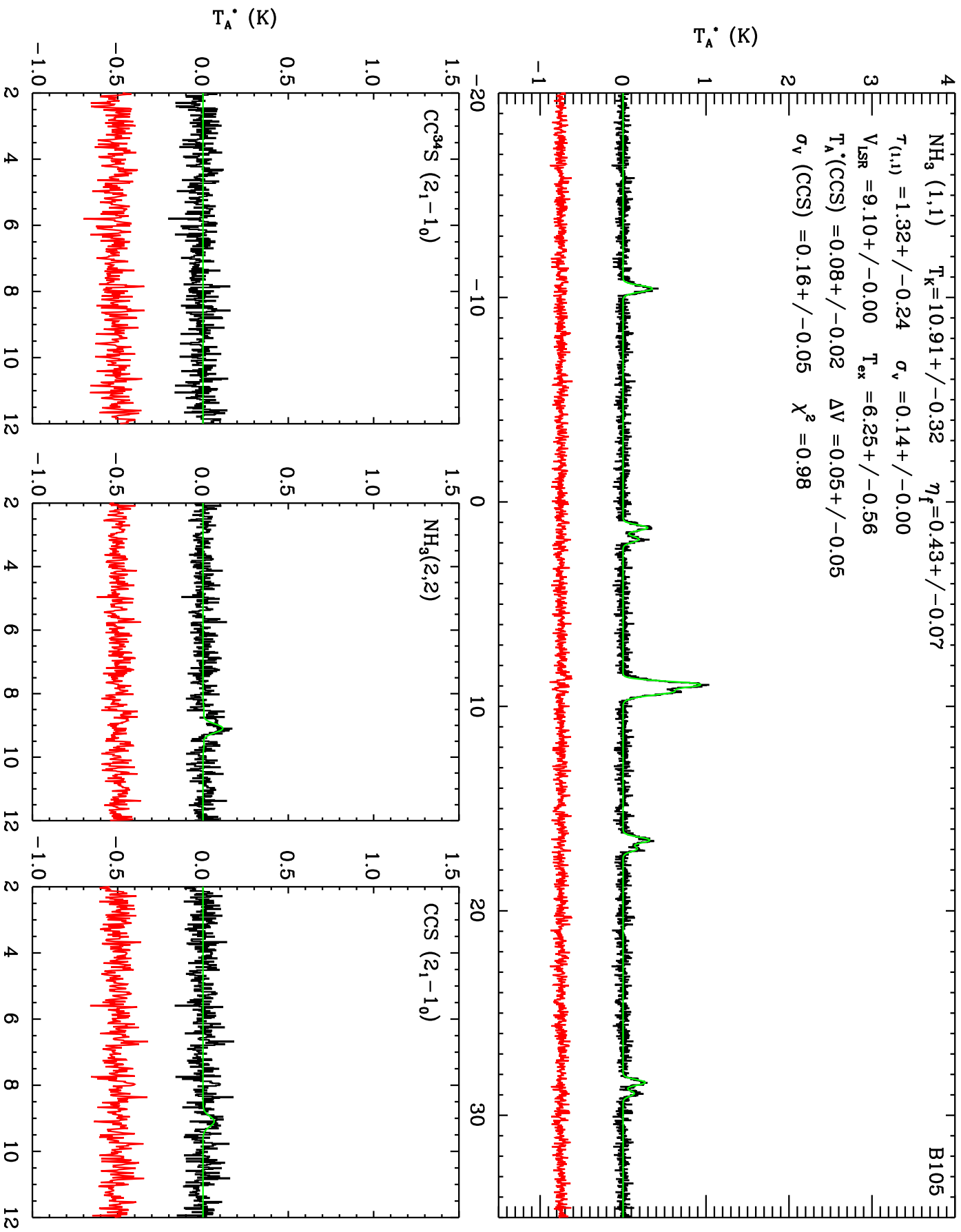
$T_A^*(\text{CCS}) = 0.02 + / - 0.04$ $\Delta V = 0.08 + / - 0.64$

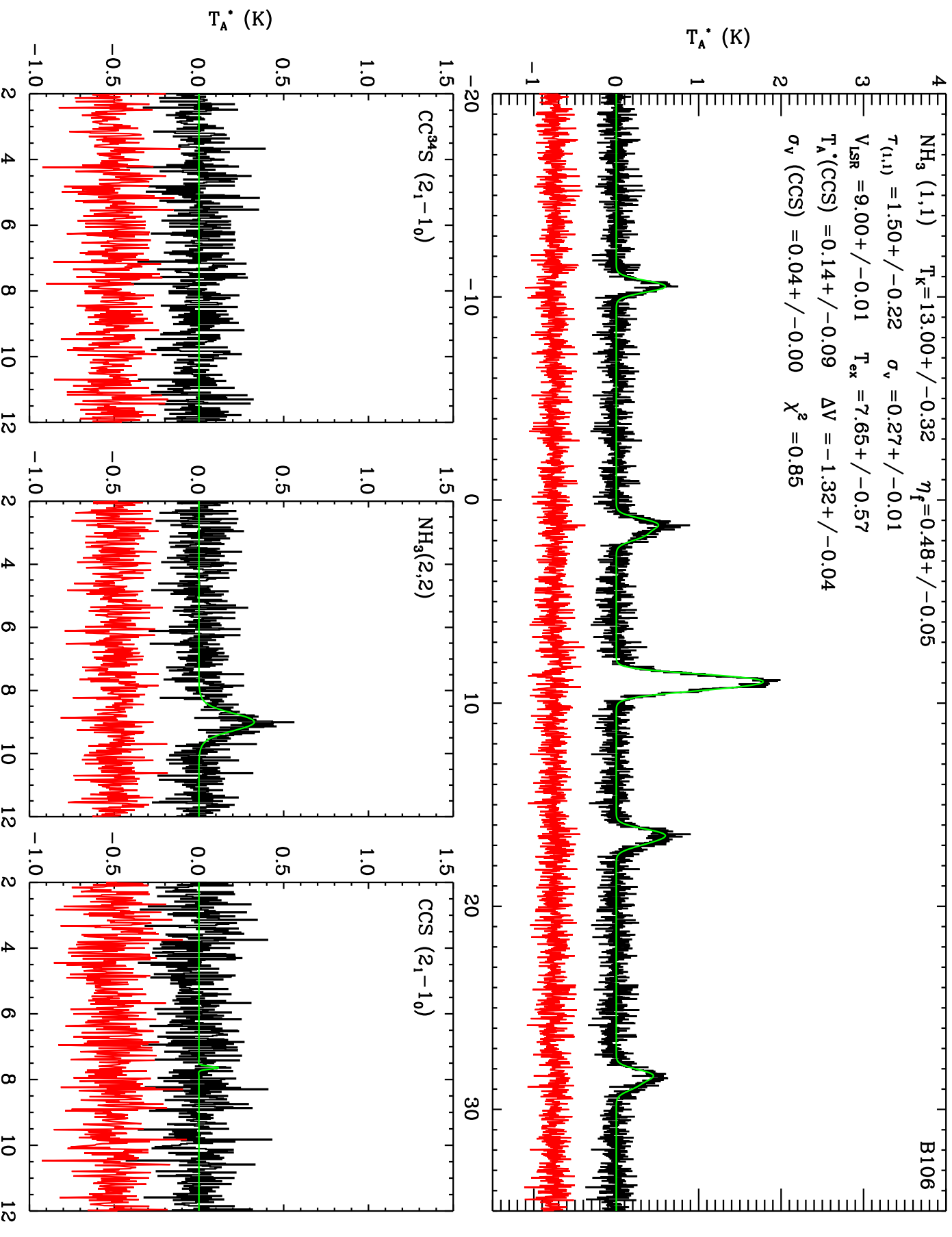
$\sigma_v(\text{CCS}) = 0.32 + / - 0.64$ $\chi^2 = 0.99$



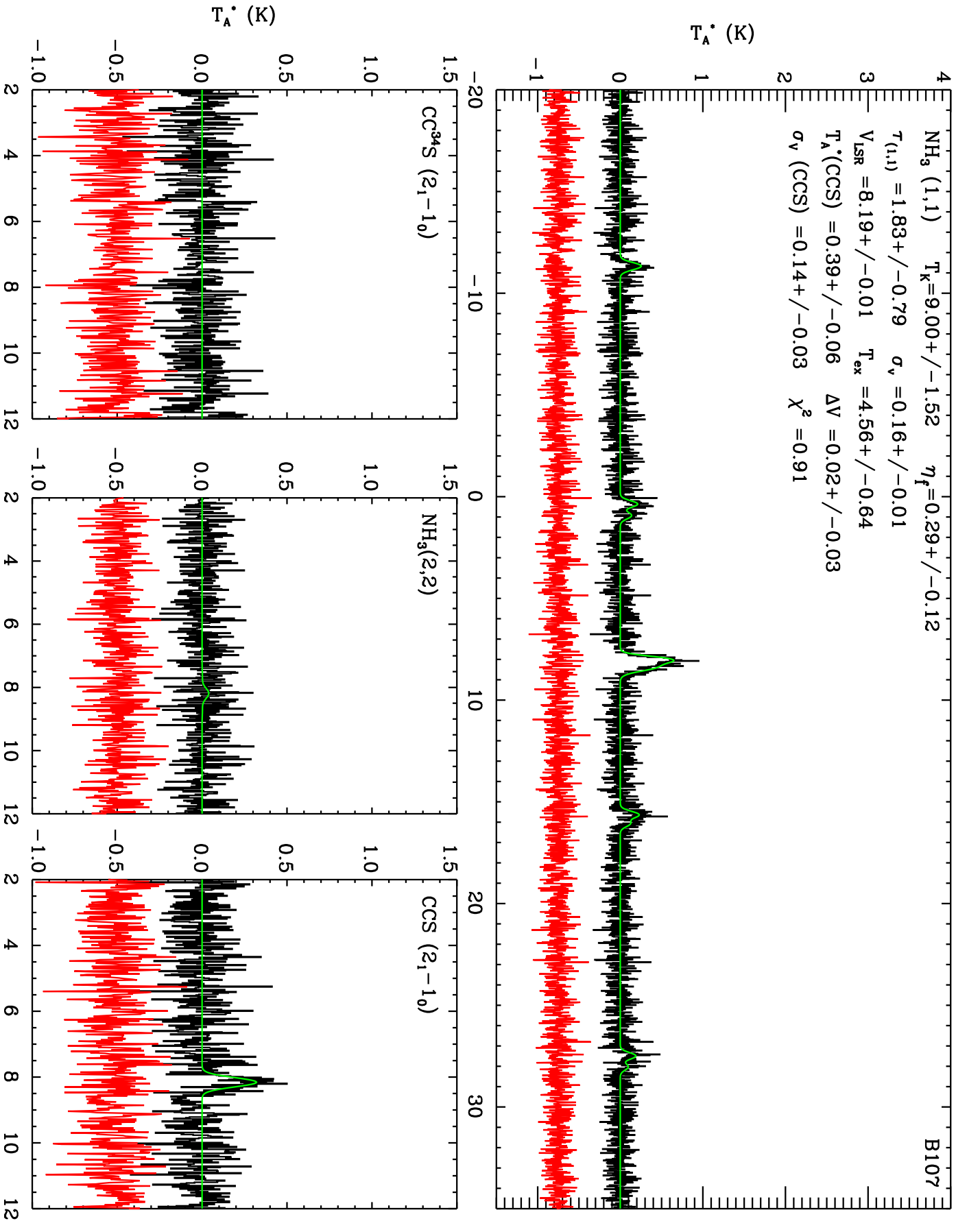
B105

$\text{NH}_3(1,1)$ $T_K = 10.91 \pm 0.32$ $\eta_f = 0.43 \pm 0.07$
 $T_{(1,1)} = 1.32 \pm 0.24$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 9.10 \pm 0.00$ $T_{\text{ex}} = 6.25 \pm 0.56$
 $T_A^*(\text{CCS}) = 0.08 \pm 0.02$ $\Delta V = 0.05 \pm 0.05$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.05$ $\chi^2 = 0.98$





B107
NH₃ (1,1) $T_K=9.00+/-1.52$ $\eta_f=0.29+/-0.12$
 $T_{(1,1)}=1.83+/-0.79$ $\sigma_v=0.16+/-0.01$
 $V_{LSR}=8.19+/-0.01$ $T_{ex}=4.56+/-0.64$
 $T_A^*(CCS)=0.39+/-0.06$ $\Delta V=0.02+/-0.03$
 $\sigma_v(CCS)=0.14+/-0.03$ $\chi^2=0.91$



B108

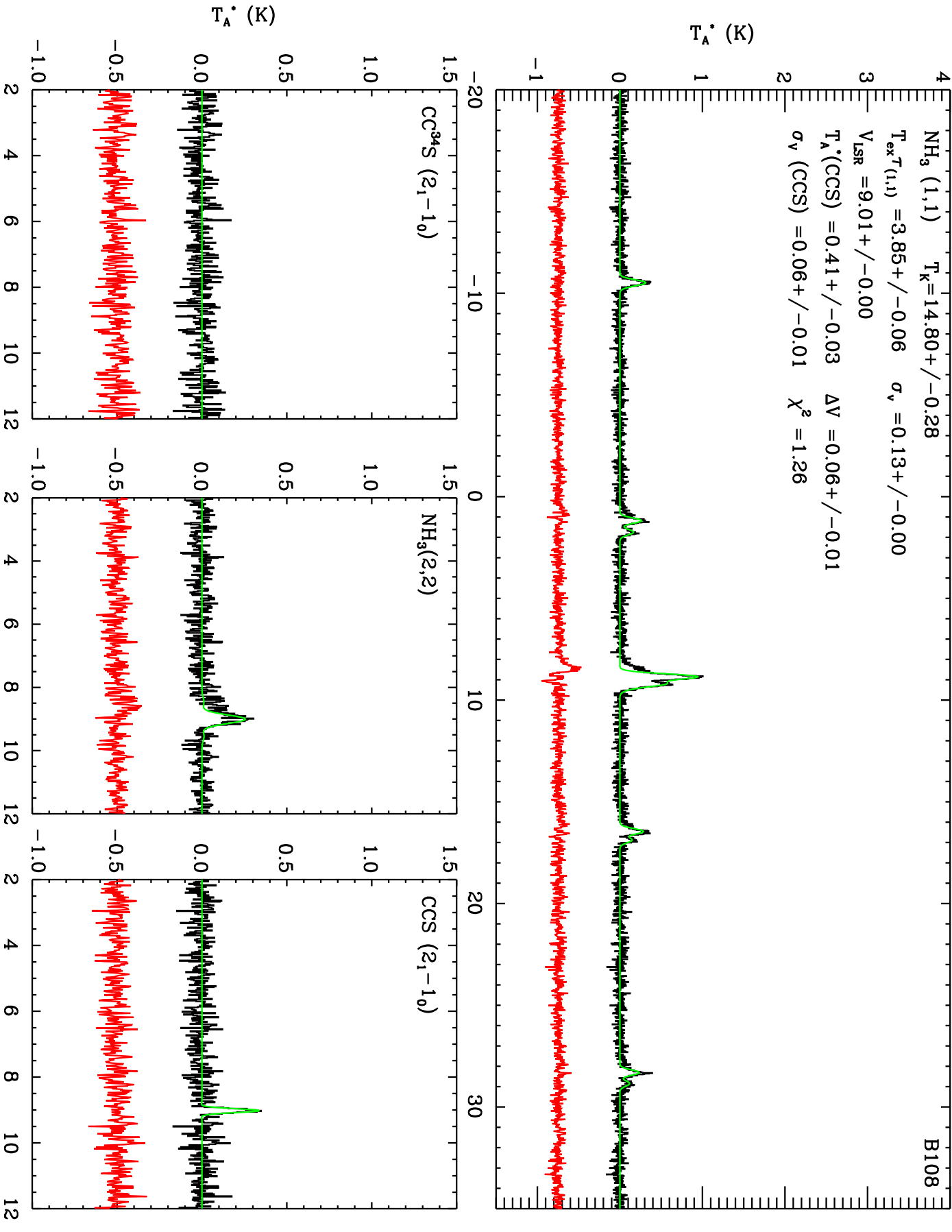
NH₃ (1,1) T_K = 14.80+/-0.28

T_{ex}^{T(1,1)} = 3.85+/-0.06 σ_v = 0.13+/-0.00

V_{LSR} = 9.01+/-0.00

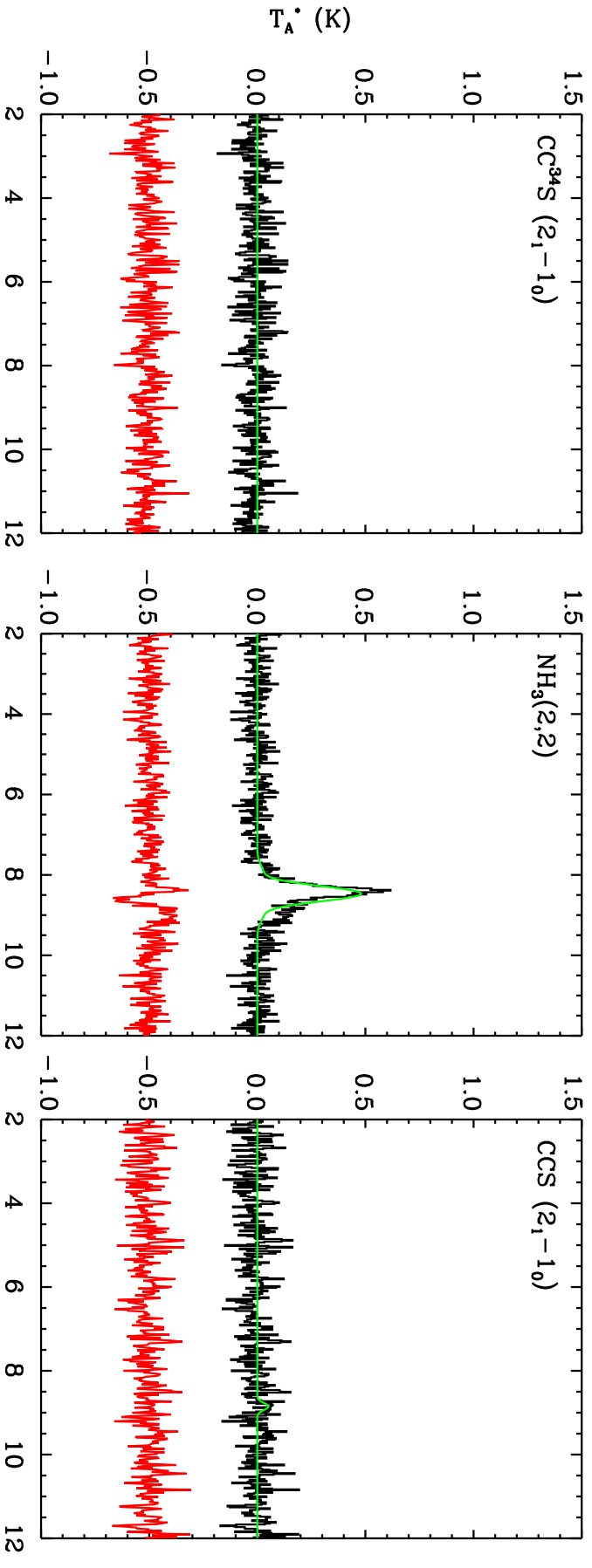
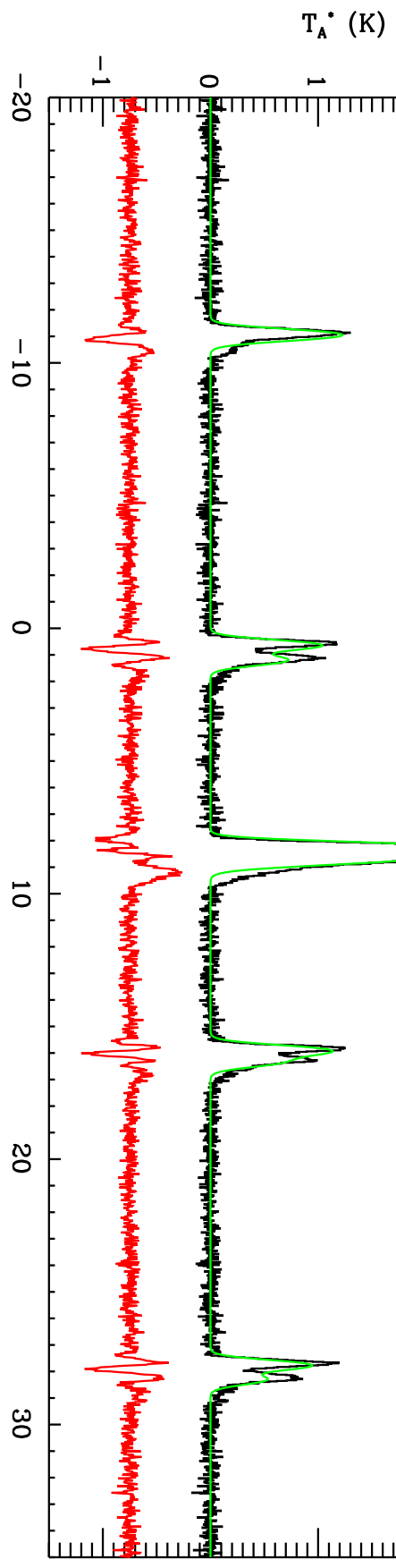
T_A^{*}(CCS) = 0.41+/-0.03 ΔV = 0.06+/-0.01

σ_v (CCS) = 0.06+/-0.01 χ² = 1.26

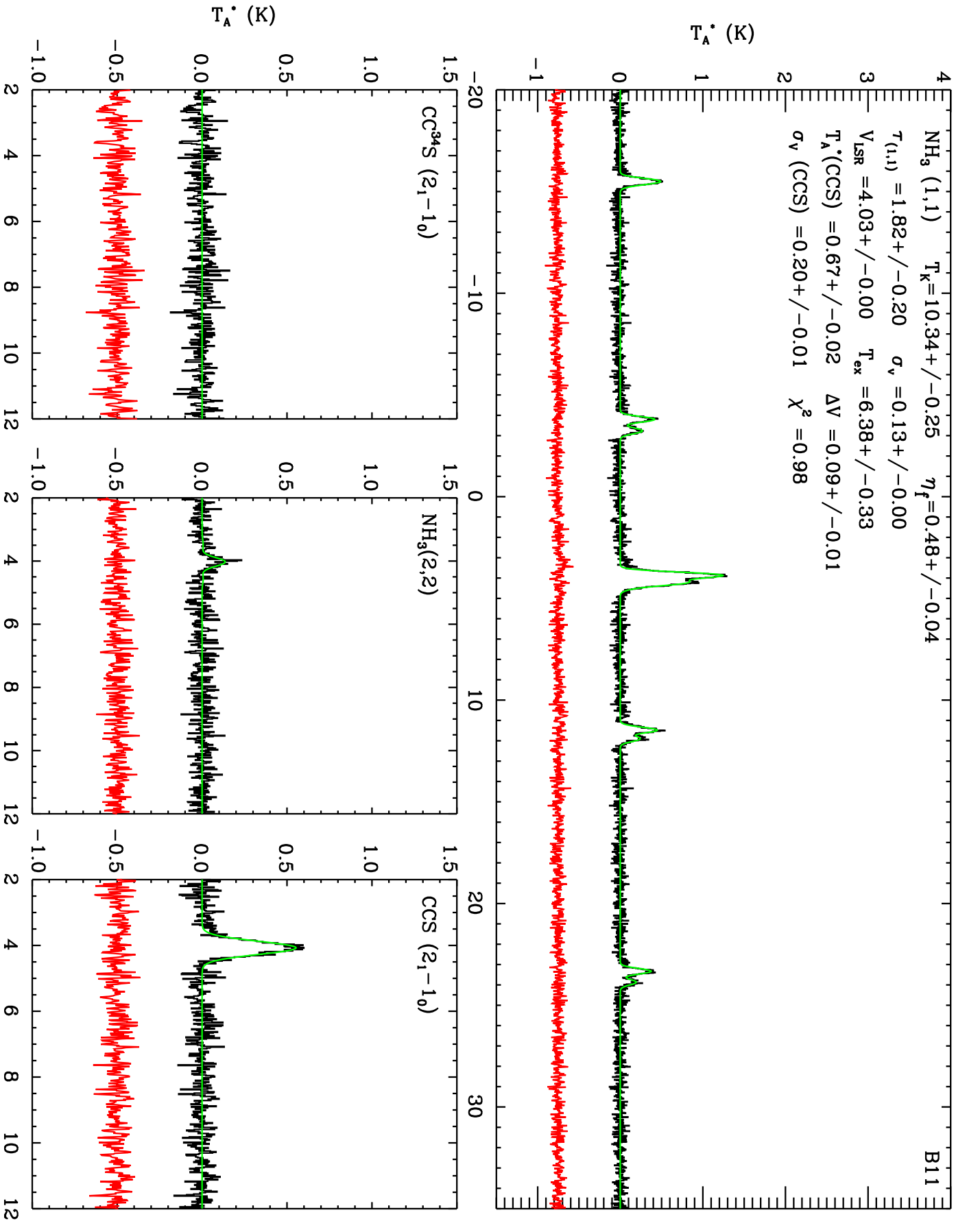


B109

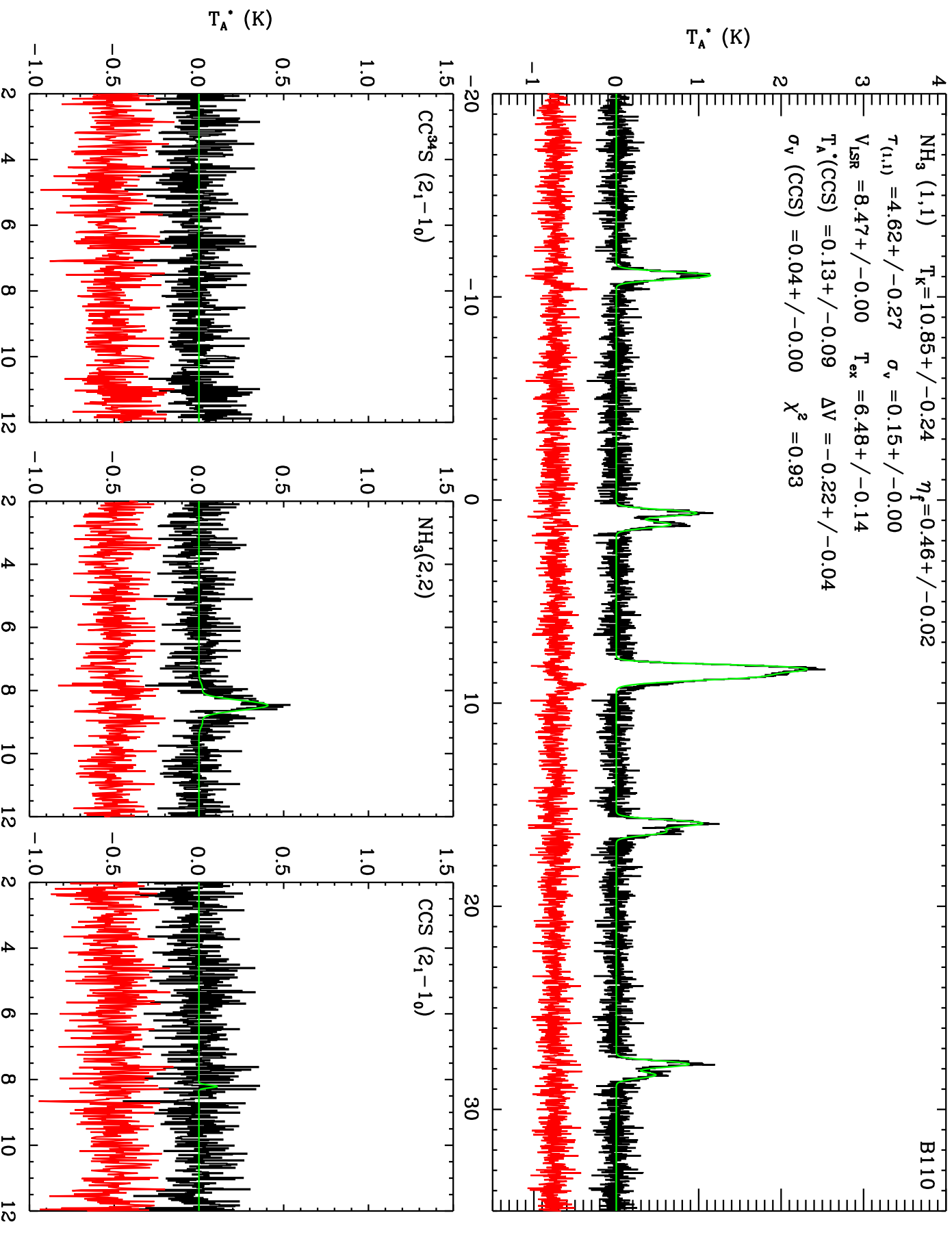
$\text{NH}_3(1,1)$ $T_K = 11.15 \pm 0.08$ $\eta_f = 0.41 \pm 0.01$
 $T_{(1,1)} = 5.47 \pm 0.10$ $\sigma_v = 0.18 \pm 0.00$
 $V_{\text{LSR}} = 8.47 \pm 0.00$ $T_{\text{ex}} = 6.21 \pm 0.04$
 $T_A^*(\text{CCS}) = 0.06 \pm 0.03$ $\Delta V = 0.43 \pm 0.05$
 $\sigma_v(\text{CCS}) = 0.08 \pm 0.05$ $\chi^2 = 3.18$

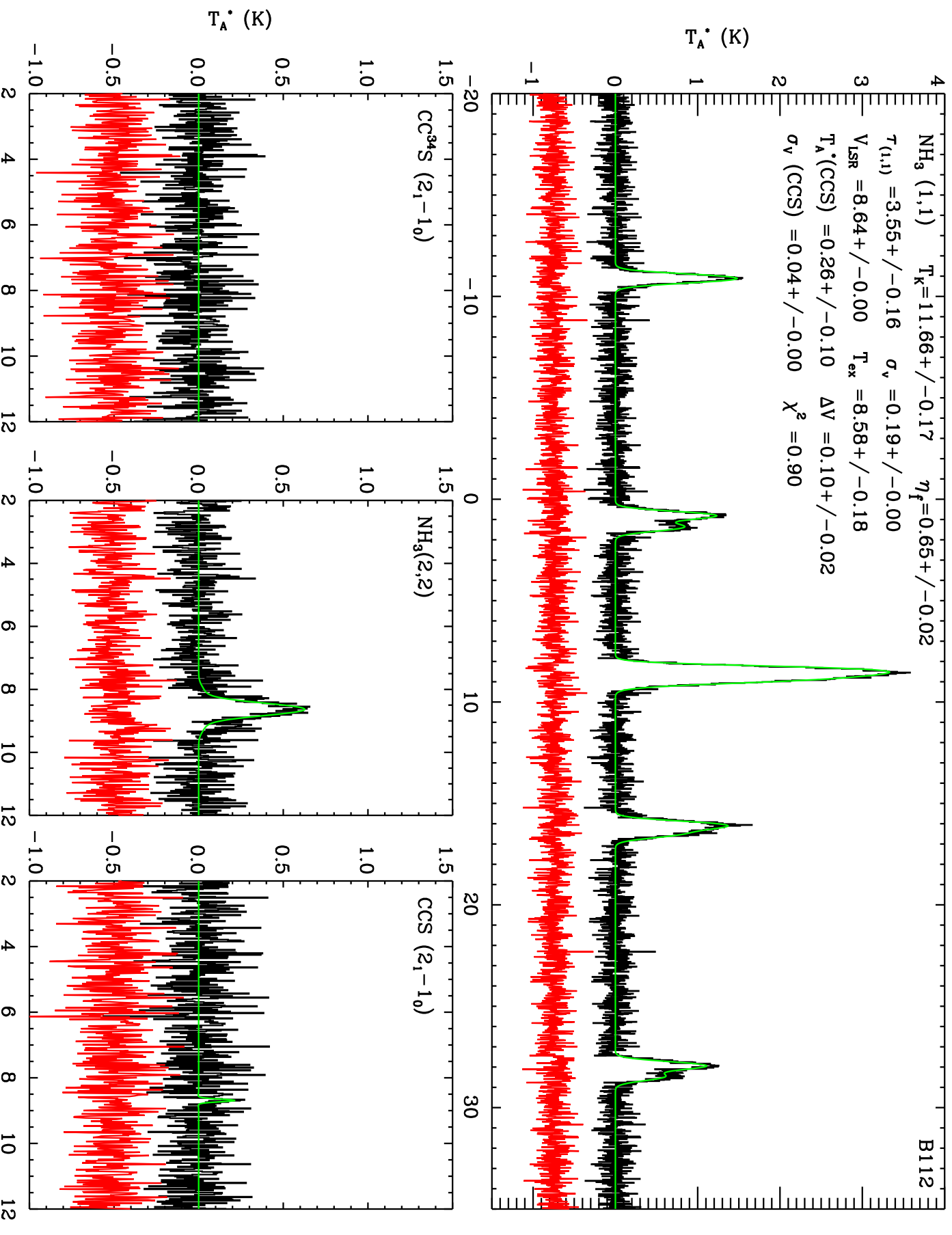


$\text{NH}_3(1,1)$ $T_K = 10.34 \pm 0.25$ $\eta_f = 0.48 \pm 0.04$
 $T_{(1,1)} = 1.82 \pm 0.20$ $\sigma_v = 0.13 \pm 0.00$
 $V_{\text{LSR}} = 4.03 \pm 0.00$ $T_{\text{ex}} = 6.38 \pm 0.33$
 $T_A^*(\text{CCS}) = 0.67 \pm 0.02$ $\Delta V = 0.09 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.20 \pm 0.01$ $\chi^2 = 0.98$



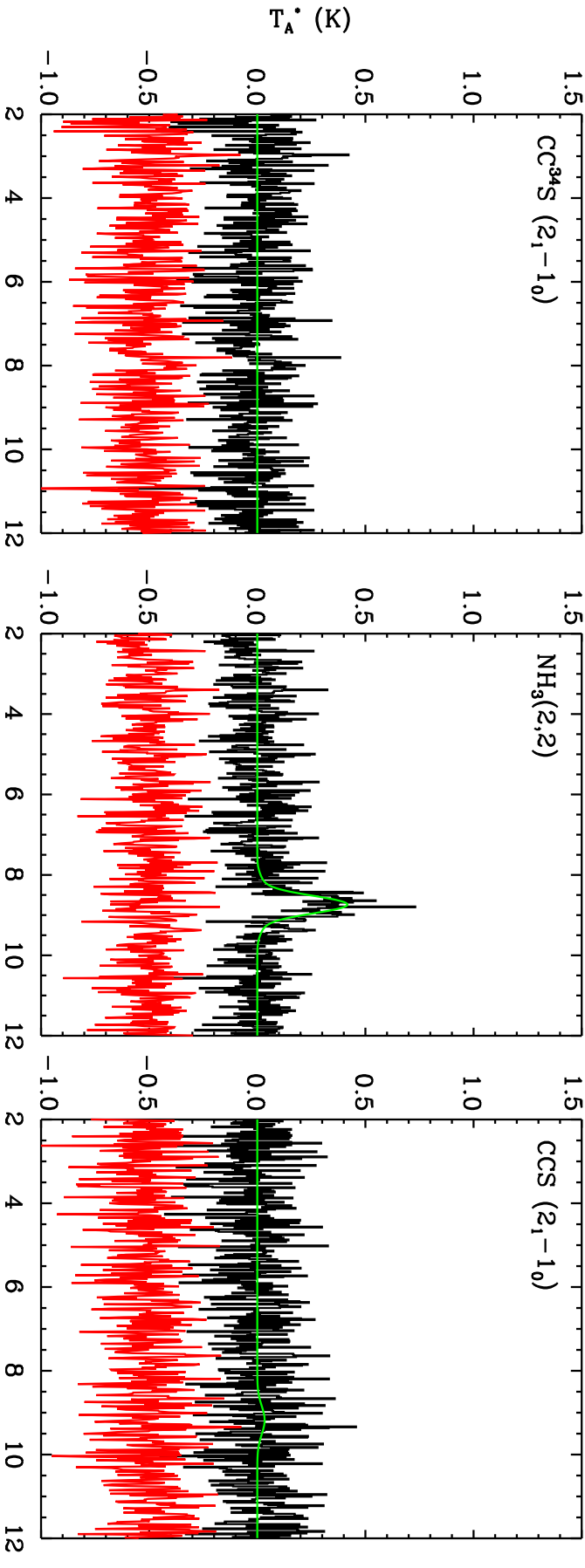
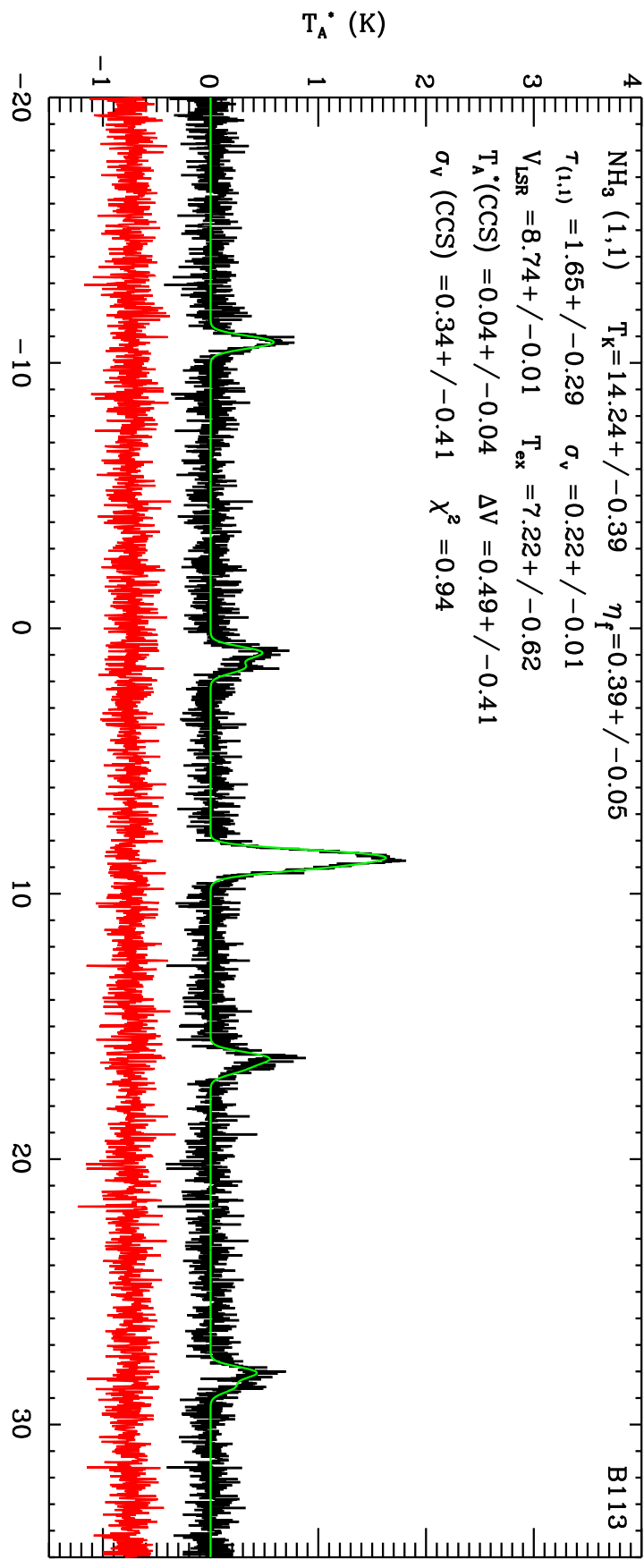
B11





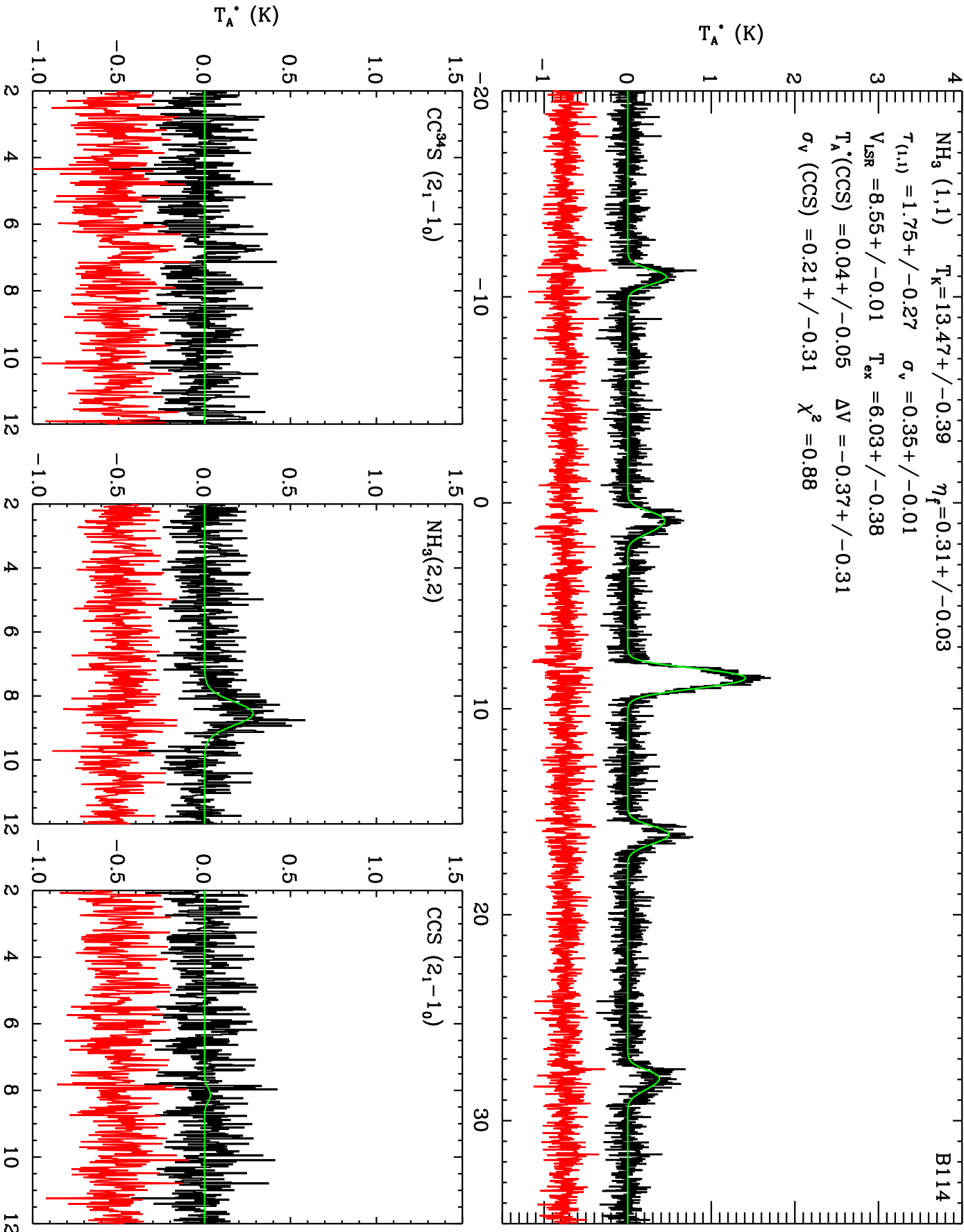
B113

$\text{NH}_3(1,1)$ $T_K = 14.24 \pm 0.39$ $\eta_f = 0.39 \pm 0.05$
 $T_{(1,1)} = 1.65 \pm 0.29$ $\sigma_v = 0.22 \pm 0.01$
 $V_{\text{LSR}} = 8.74 \pm 0.01$ $T_{\text{ex}} = 7.22 \pm 0.62$
 $T_A^*(\text{CCS}) = 0.04 \pm 0.04$ $\Delta V = 0.49 \pm 0.41$
 $\sigma_v(\text{CCS}) = 0.34 \pm 0.41$ $\chi^2 = 0.94$

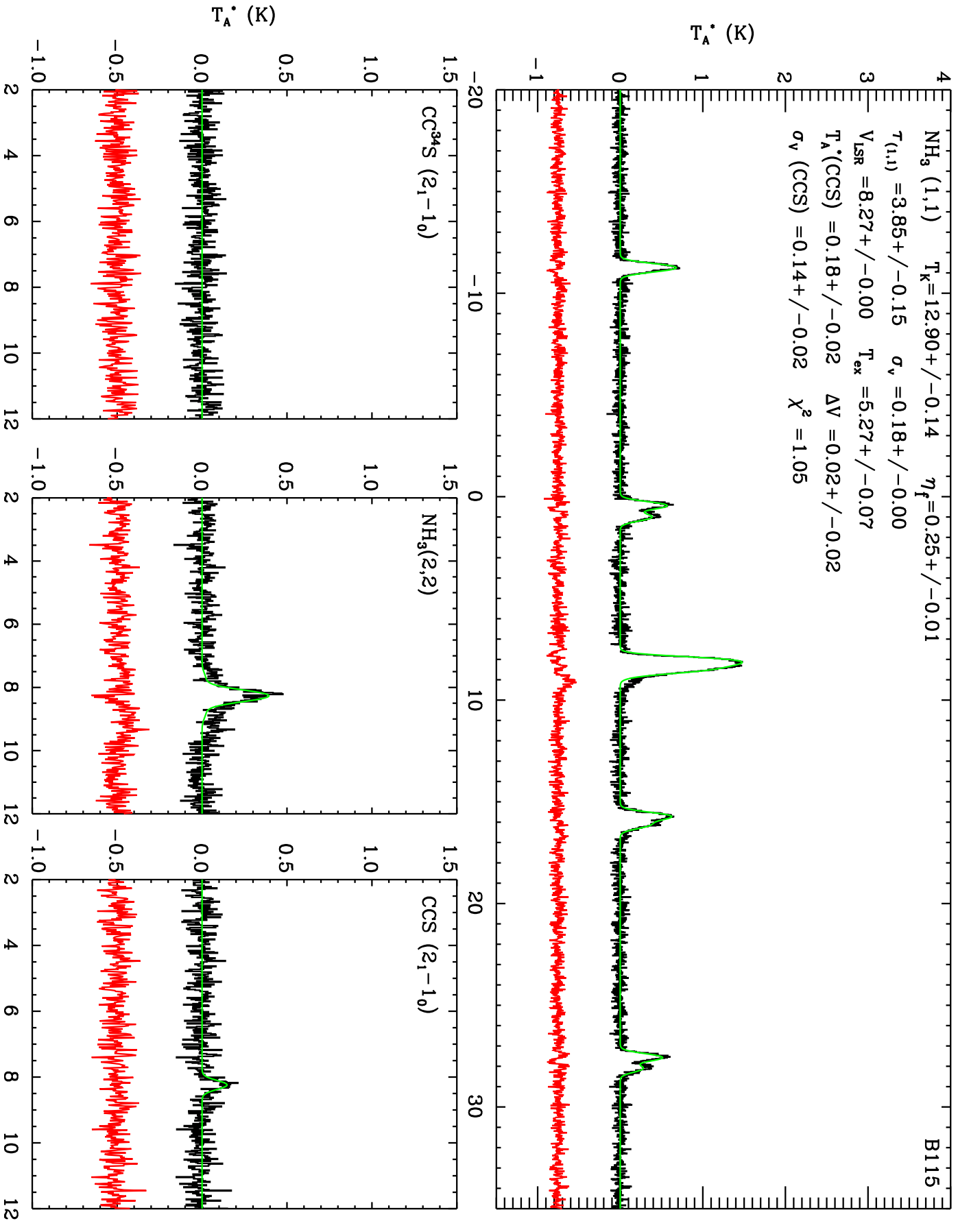


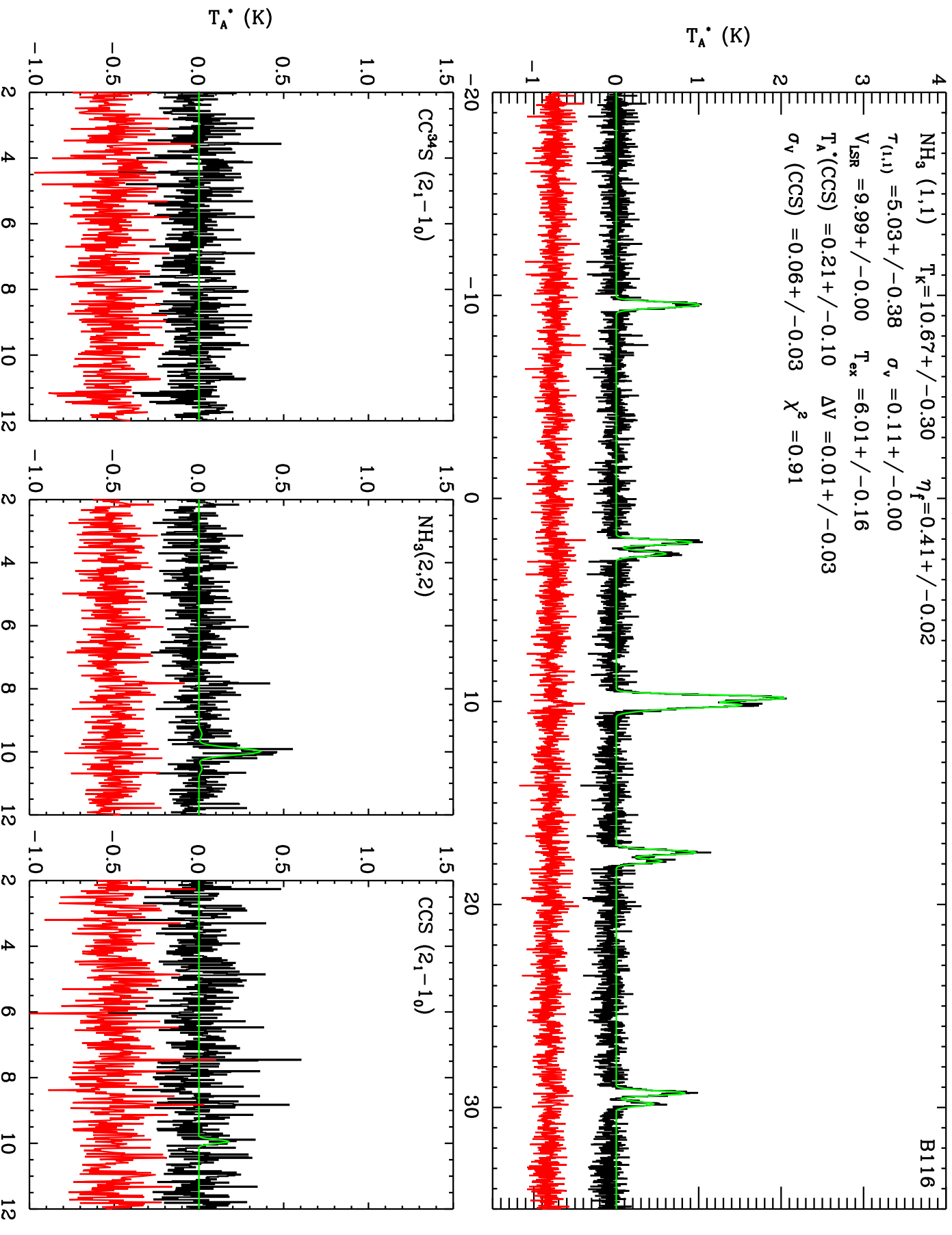
B114

$\text{NH}_3(1,1)$ $T_K = 13.47 \pm 0.39$ $\eta_f = 0.31 \pm 0.03$
 $T_{(1,1)} = 1.75 \pm 0.27$ $\sigma_v = 0.35 \pm 0.01$
 $V_{\text{LSR}} = 8.55 \pm 0.01$ $T_{\text{ex}} = 6.03 \pm 0.38$
 $T_A^*(\text{CCS}) = 0.04 \pm 0.05$ $\Delta V = -0.37 \pm 0.31$
 $\sigma_v(\text{CCS}) = 0.21 \pm 0.31$ $\chi^2 = 0.88$



$\text{NH}_3(1,1)$ $T_K = 12.90 \pm 0.14$ $\eta_f = 0.25 \pm 0.01$
 $T_{(1,1)} = 3.85 \pm 0.15$ $\sigma_v = 0.18 \pm 0.00$
 $V_{\text{LSR}} = 8.27 \pm 0.00$ $T_{\text{ex}} = 5.27 \pm 0.07$
 $T_A^*(\text{CCS}) = 0.18 \pm 0.02$ $\Delta V = 0.02 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.14 \pm 0.02$ $\chi^2 = 1.05$





B117

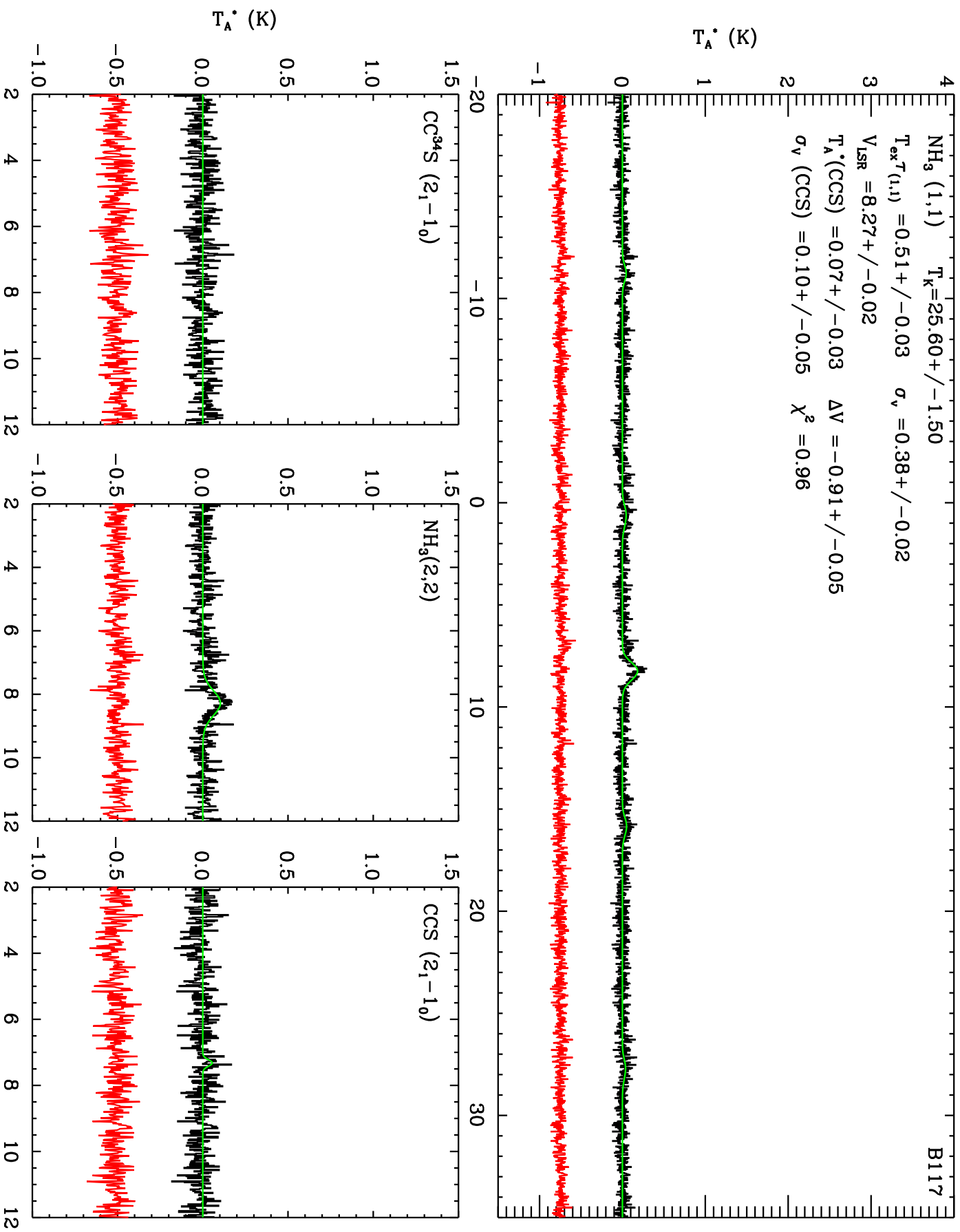
NH₃ (1,1) $T_K = 25.60 \pm 1.50$

$T_{\text{ex}}^{T(1,1)} = 0.51 \pm 0.03$ $\sigma_v = 0.38 \pm 0.02$

$V_{\text{LSR}} = 8.27 \pm 0.02$

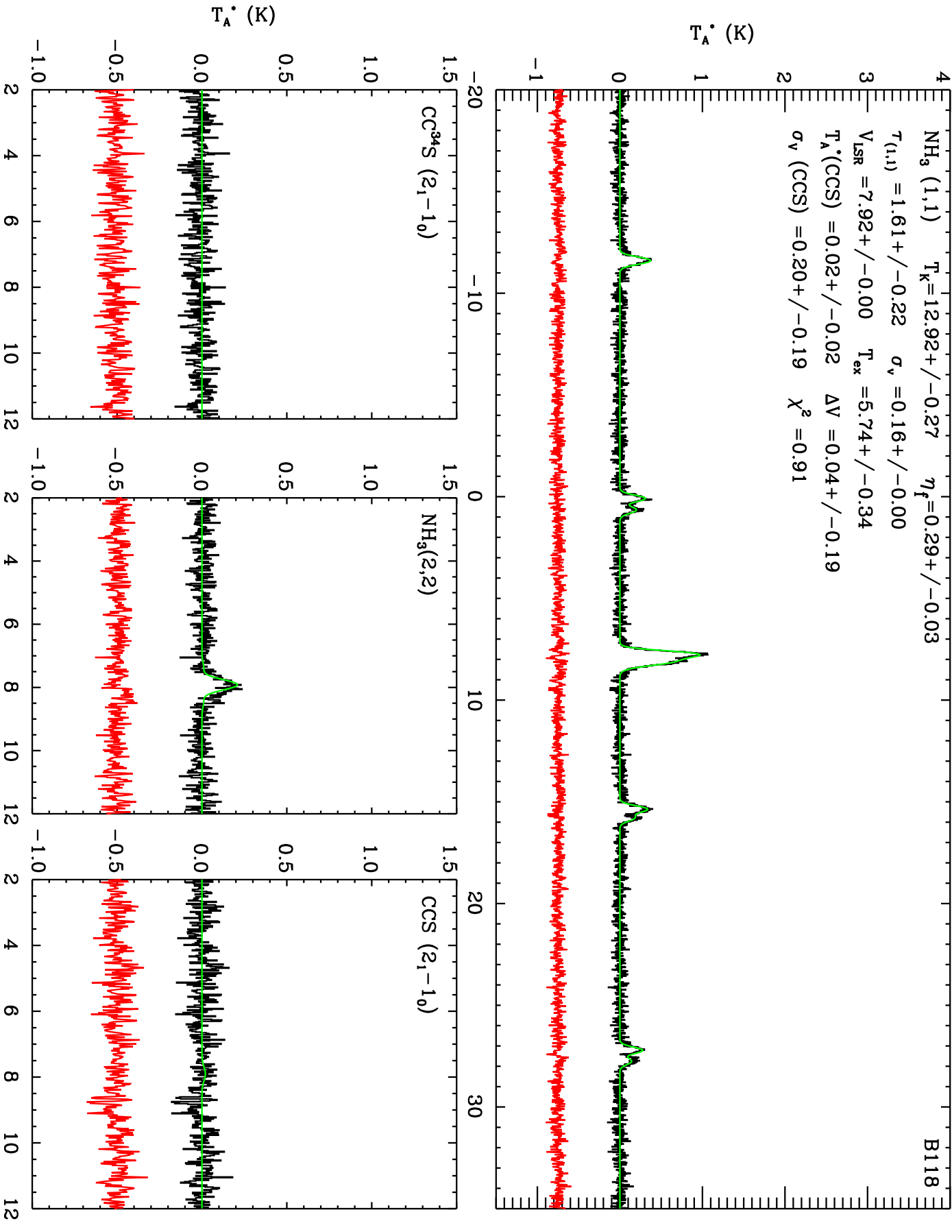
$T_A^*(\text{CCS}) = 0.07 \pm 0.03$ $\Delta V = -0.91 \pm 0.05$

$\sigma_v(\text{CCS}) = 0.10 \pm 0.05$ $\chi^2 = 0.96$



B118

$\text{NH}_3(1,1)$ $T_K = 12.92 \pm 0.27$ $\eta_f = 0.29 \pm 0.03$
 $T_{(1,1)} = 1.61 \pm 0.22$ $\sigma_v = 0.16 \pm 0.00$
 $V_{\text{LSR}} = 7.92 \pm 0.00$ $T_{\text{ex}} = 5.74 \pm 0.34$
 $T_A^*(\text{CCS}) = 0.02 \pm 0.02$ $\Delta V = 0.04 \pm 0.19$
 $\sigma_v(\text{CCS}) = 0.20 \pm 0.19$ $\chi^2 = 0.91$



B119

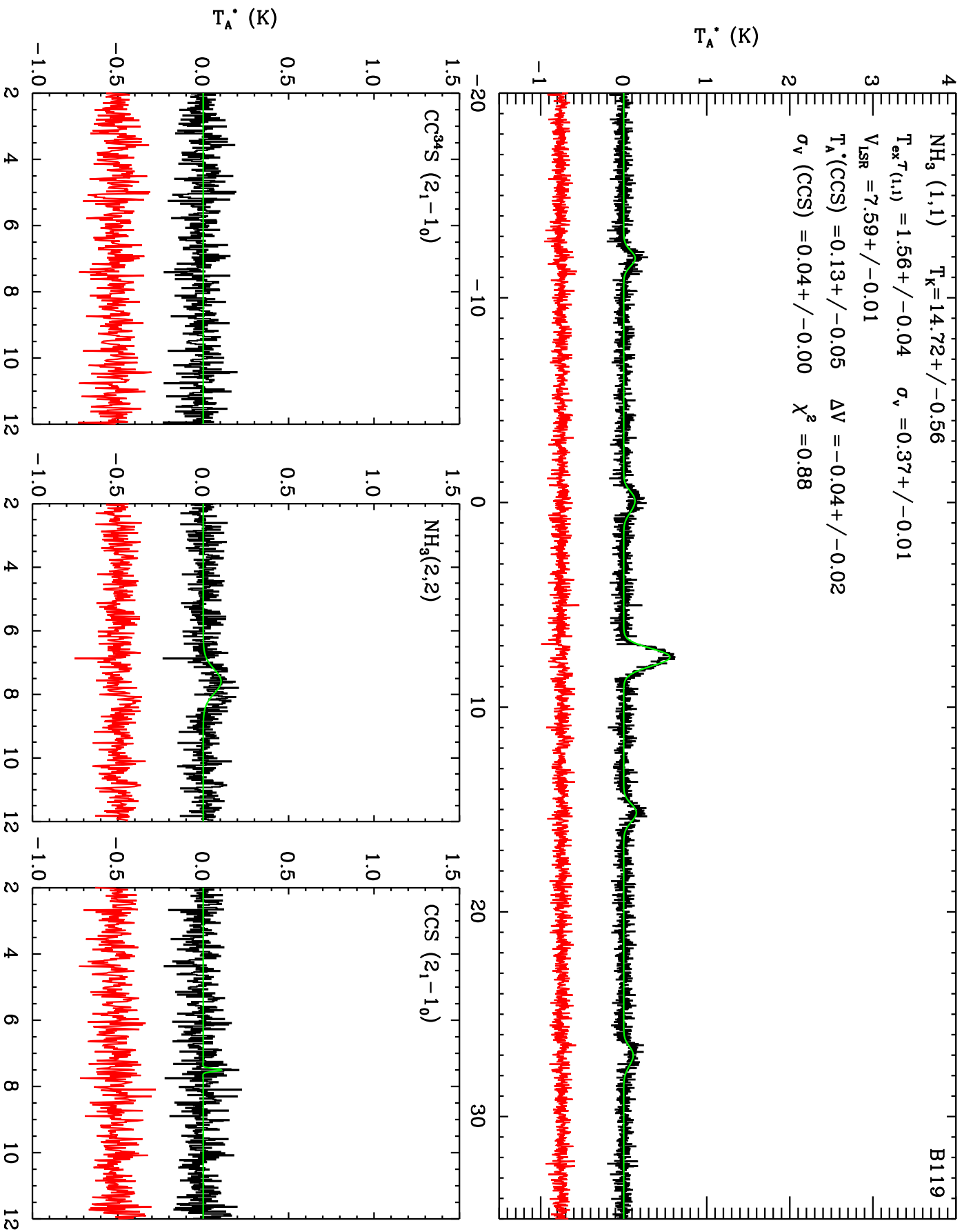
NH₃ (1,1) $T_K = 14.72 \pm 0.56$

$T_{\text{ex}}^{T(1,1)} = 1.56 \pm 0.04$ $\sigma_v = 0.37 \pm 0.01$

$V_{\text{LSR}} = 7.59 \pm 0.01$

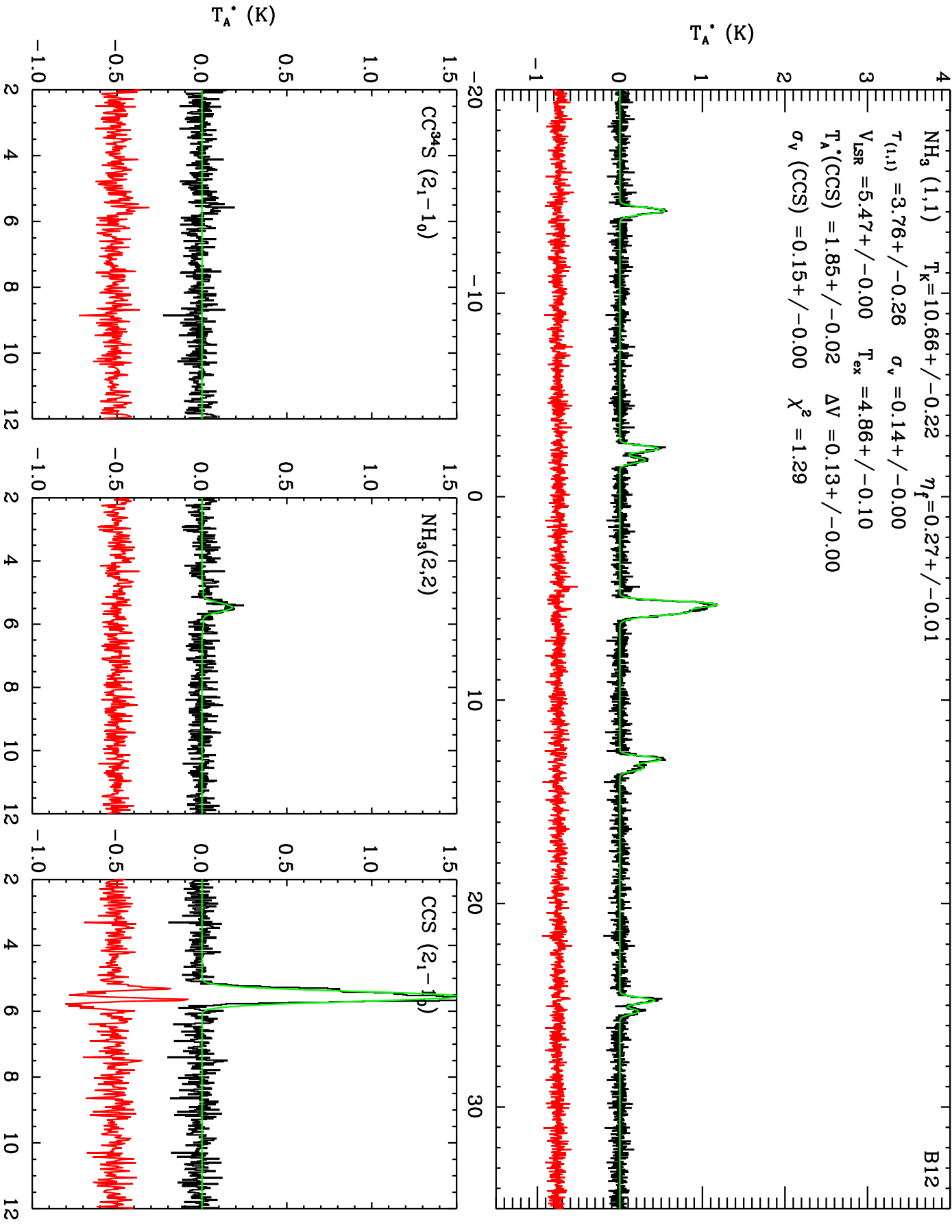
$T_A^*(\text{CCS}) = 0.13 \pm 0.05$ $\Delta V = -0.04 \pm 0.02$

$\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 0.88$



$\text{NH}_3(1,1)$ $T_K = 10.66 \pm 0.22$ $\eta_f = 0.27 \pm 0.01$
 $T_{(1,1)} = 3.76 \pm 0.26$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 5.47 \pm 0.00$ $T_{\text{ex}} = 4.86 \pm 0.10$
 $T_A^*(\text{CCS}) = 1.85 \pm 0.02$ $\Delta V = 0.13 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.15 \pm 0.00$ $\chi^2 = 1.29$

B12



B120

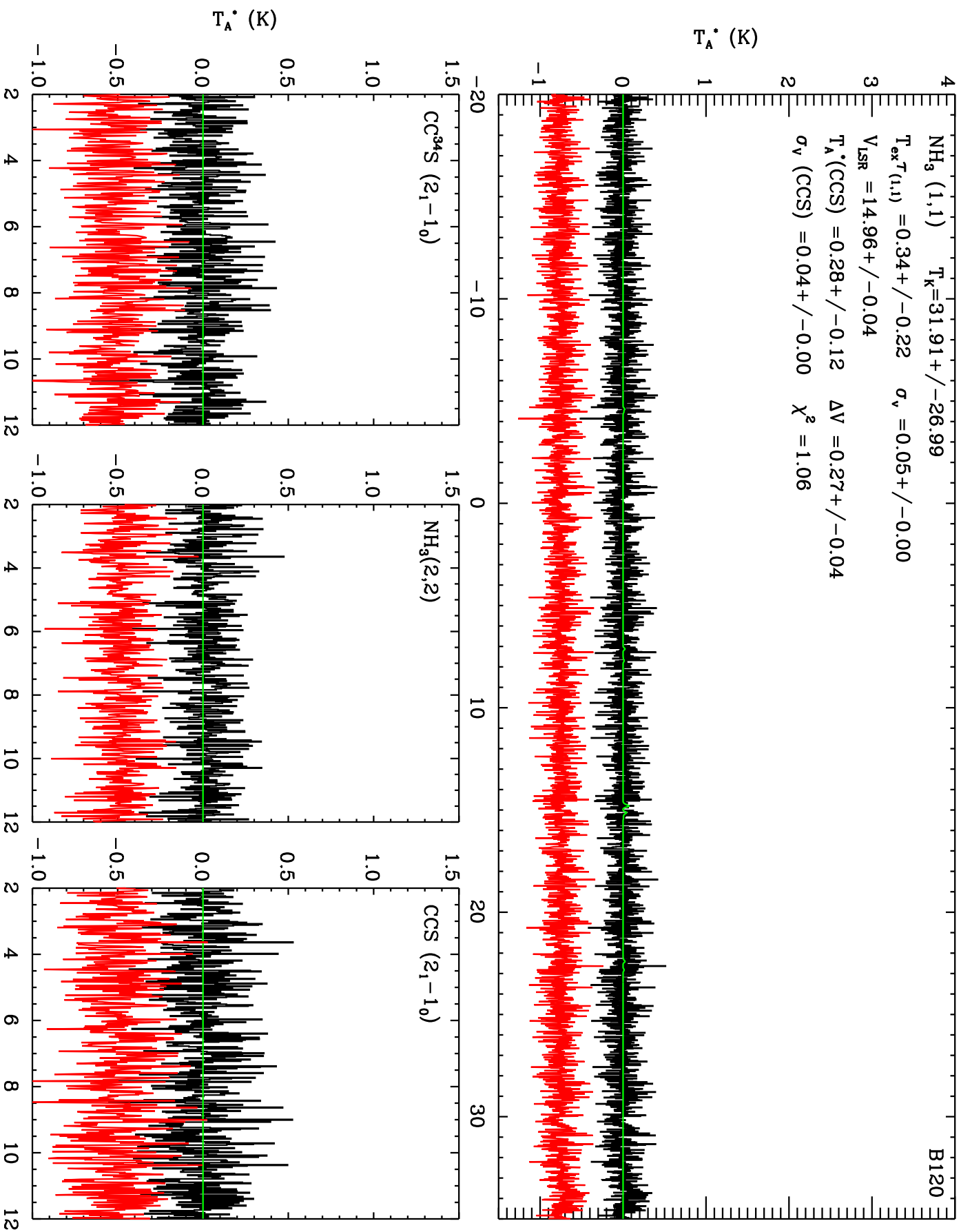
NH₃ (1,1) T_K=31.91+/-26.99

T_{ex}^{T(1,1)} = 0.34+/-0.22 σ_v = 0.05+/-0.00

V_{LSR} = 14.96+/-0.04

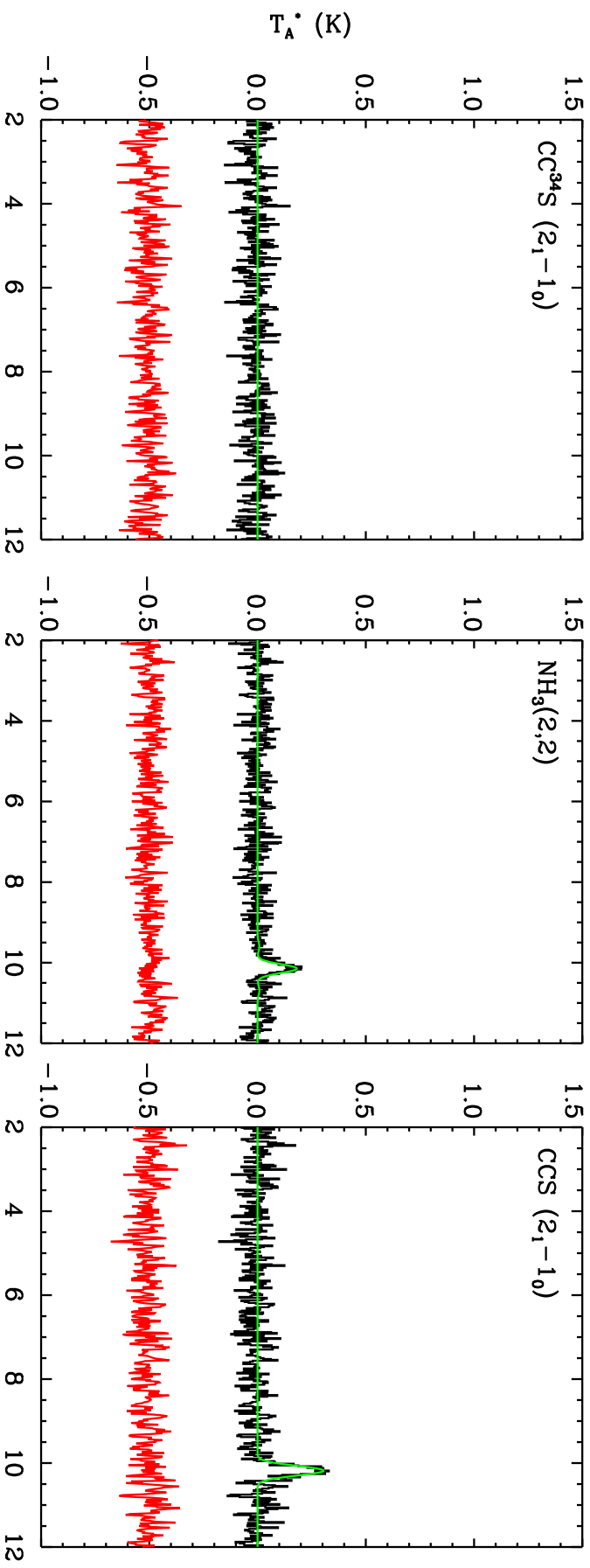
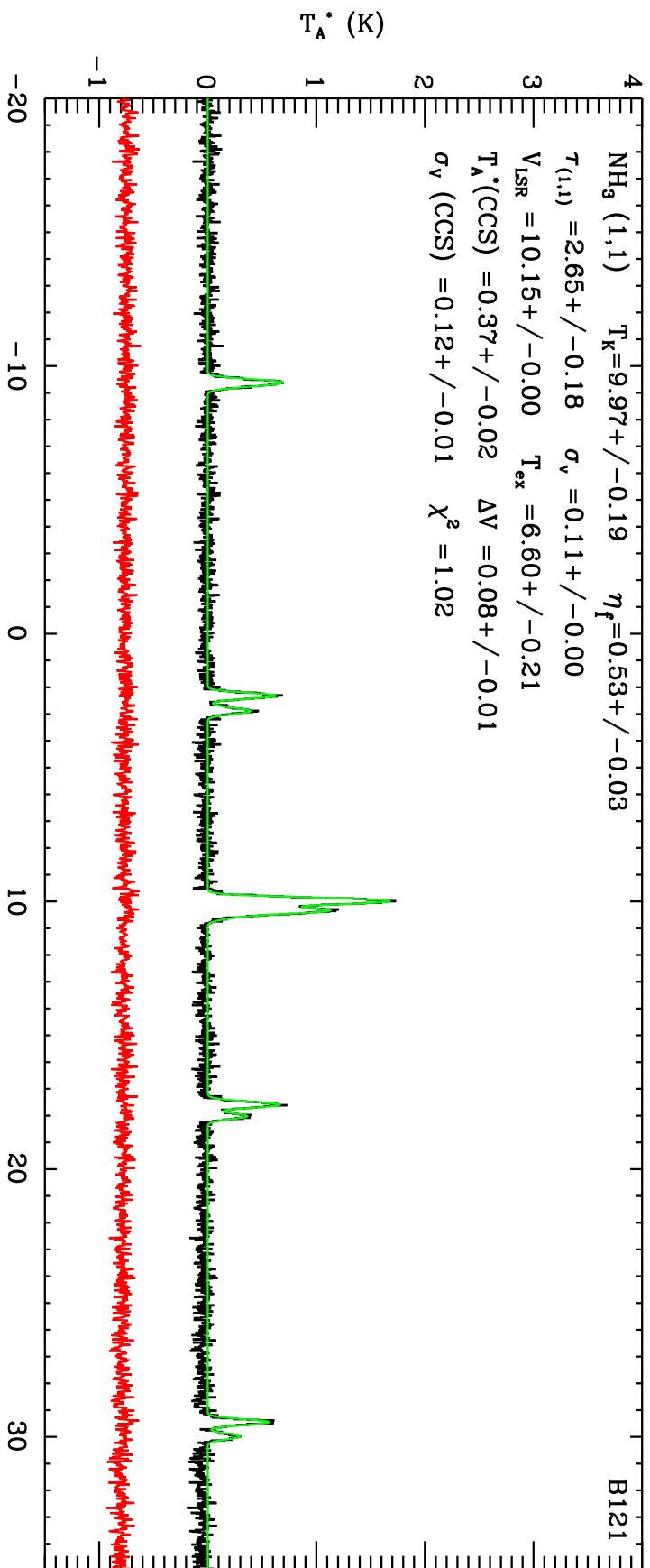
T_A^{*}(CCS) = 0.28+/-0.12 ΔV = 0.27+/-0.04

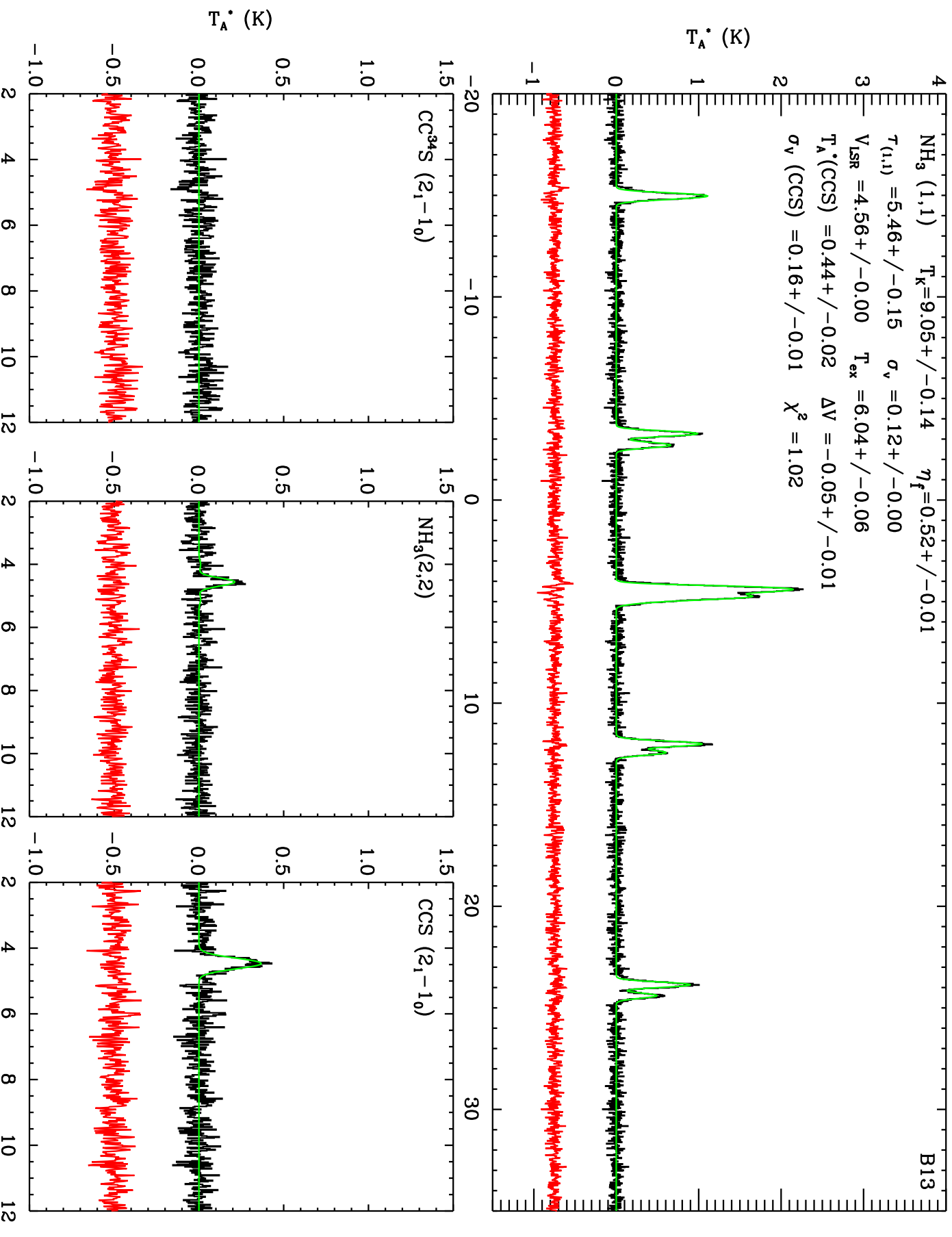
σ_v (CCS) = 0.04+/-0.00 χ² = 1.06



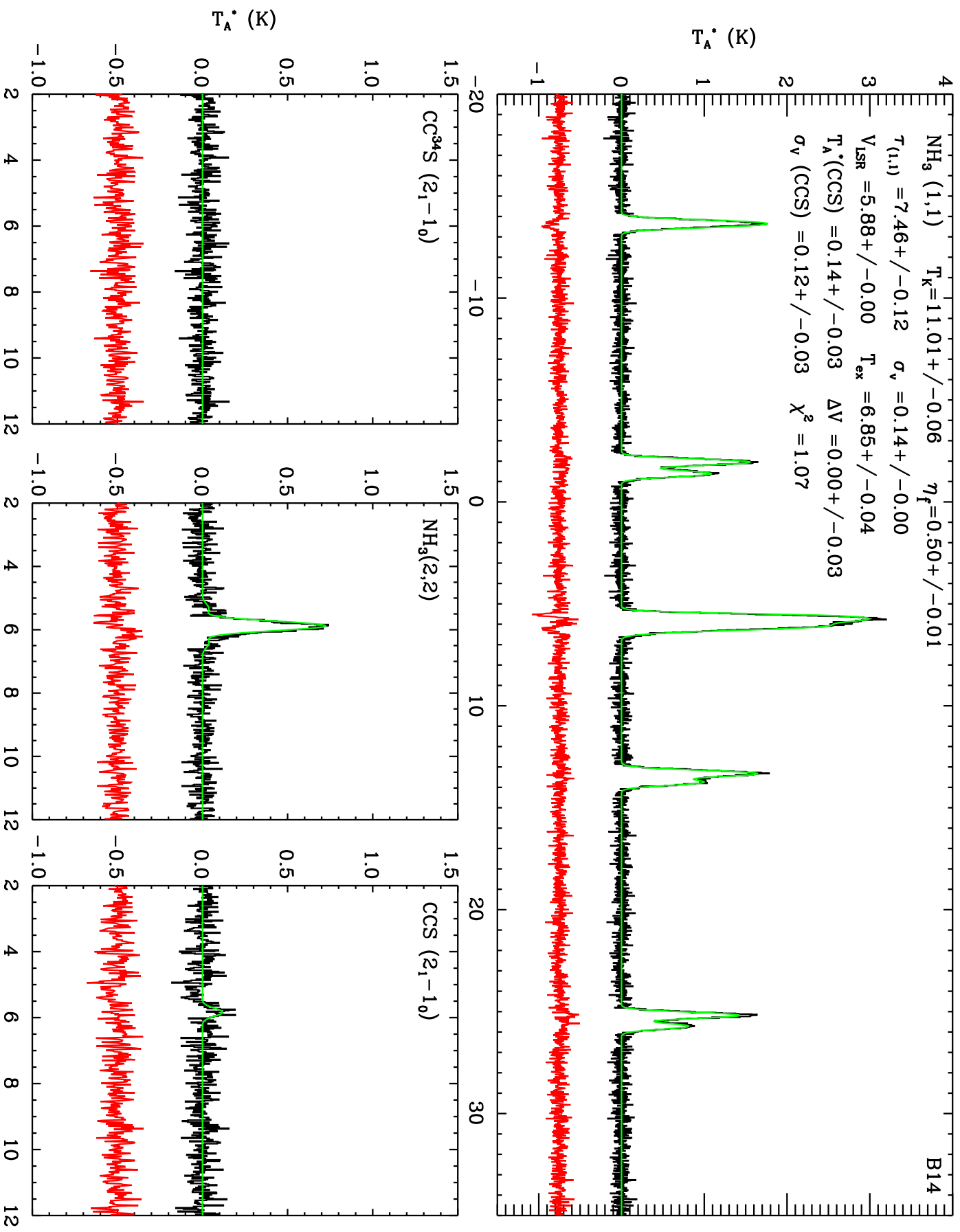
B121

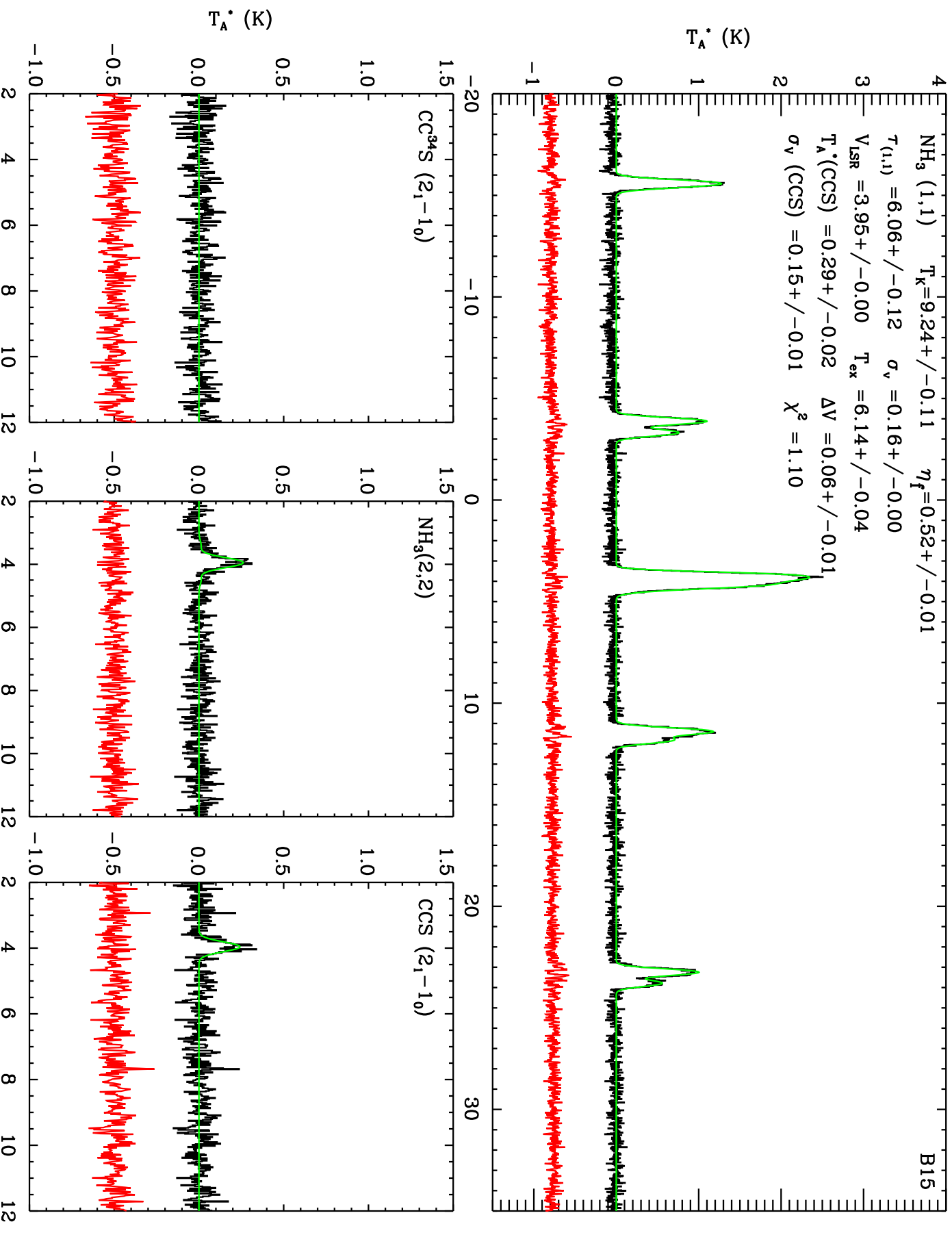
$\text{NH}_3(1,1)$ $T_K = 9.97 \pm 0.19$ $\eta_f = 0.53 \pm 0.03$
 $T_{(1,1)} = 2.65 \pm 0.18$ $\sigma_v = 0.11 \pm 0.00$
 $V_{\text{LSR}} = 10.15 \pm 0.00$ $T_{\text{ex}} = 6.60 \pm 0.21$
 $T_A^*(\text{CCS}) = 0.37 \pm 0.02$ $\Delta V = 0.08 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.12 \pm 0.01$ $\chi^2 = 1.02$





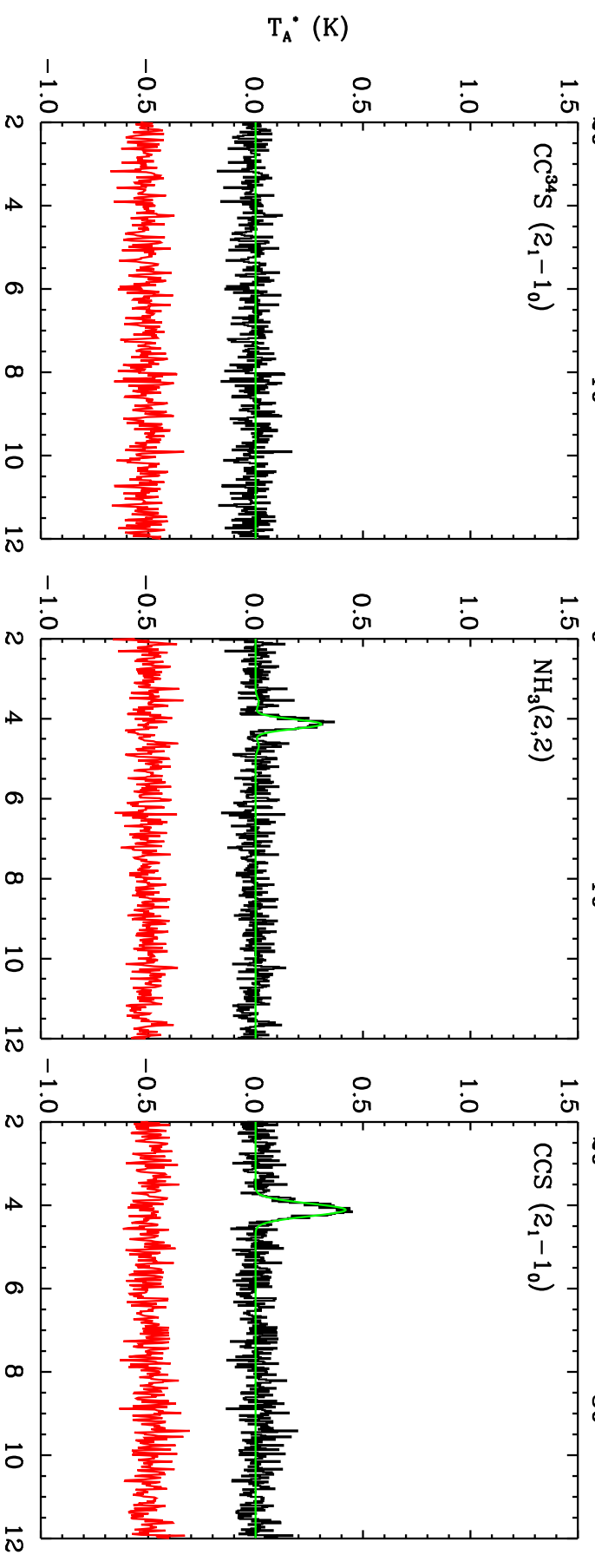
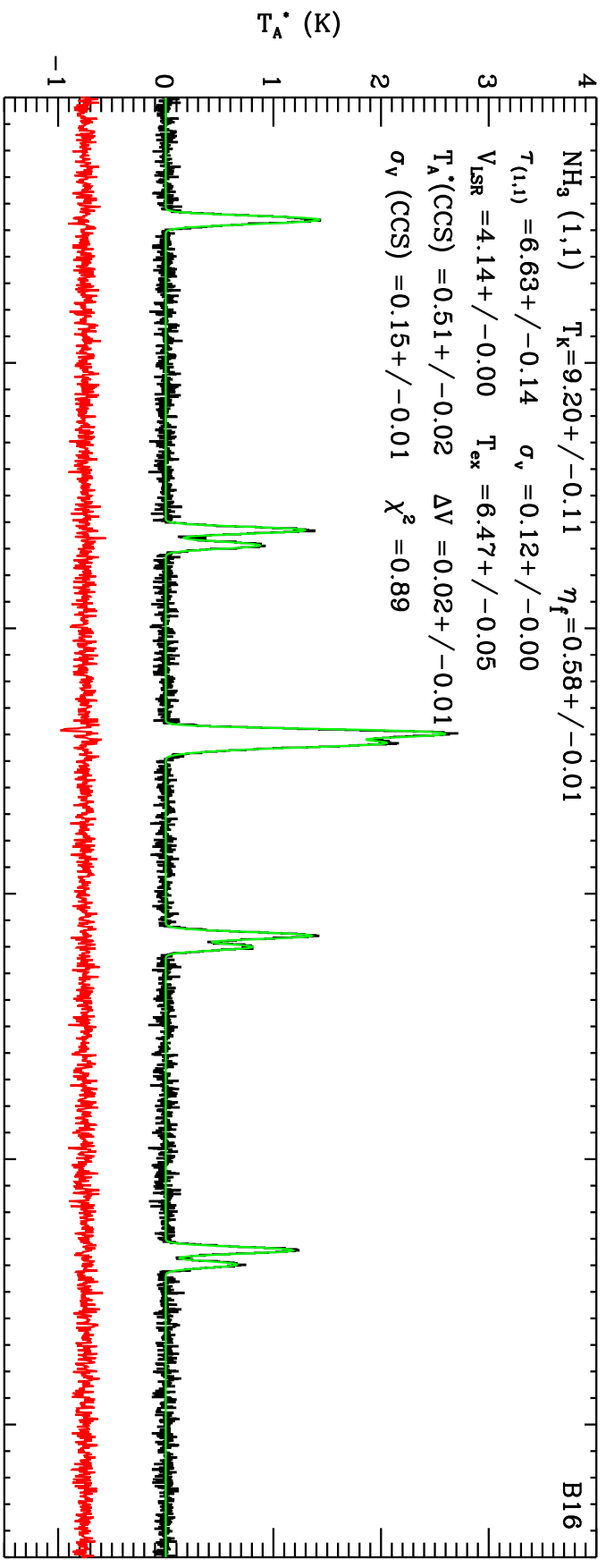
$\text{NH}_3(1,1)$ $T_K = 11.01 \pm 0.06$ $\eta_f = 0.50 \pm 0.01$
 $T_{(1,1)} = 7.46 \pm 0.12$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 5.88 \pm 0.00$ $T_{\text{ex}} = 6.85 \pm 0.04$
 $T_A^*(\text{CCS}) = 0.14 \pm 0.03$ $\Delta V = 0.00 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.12 \pm 0.03$ $\chi^2 = 1.07$

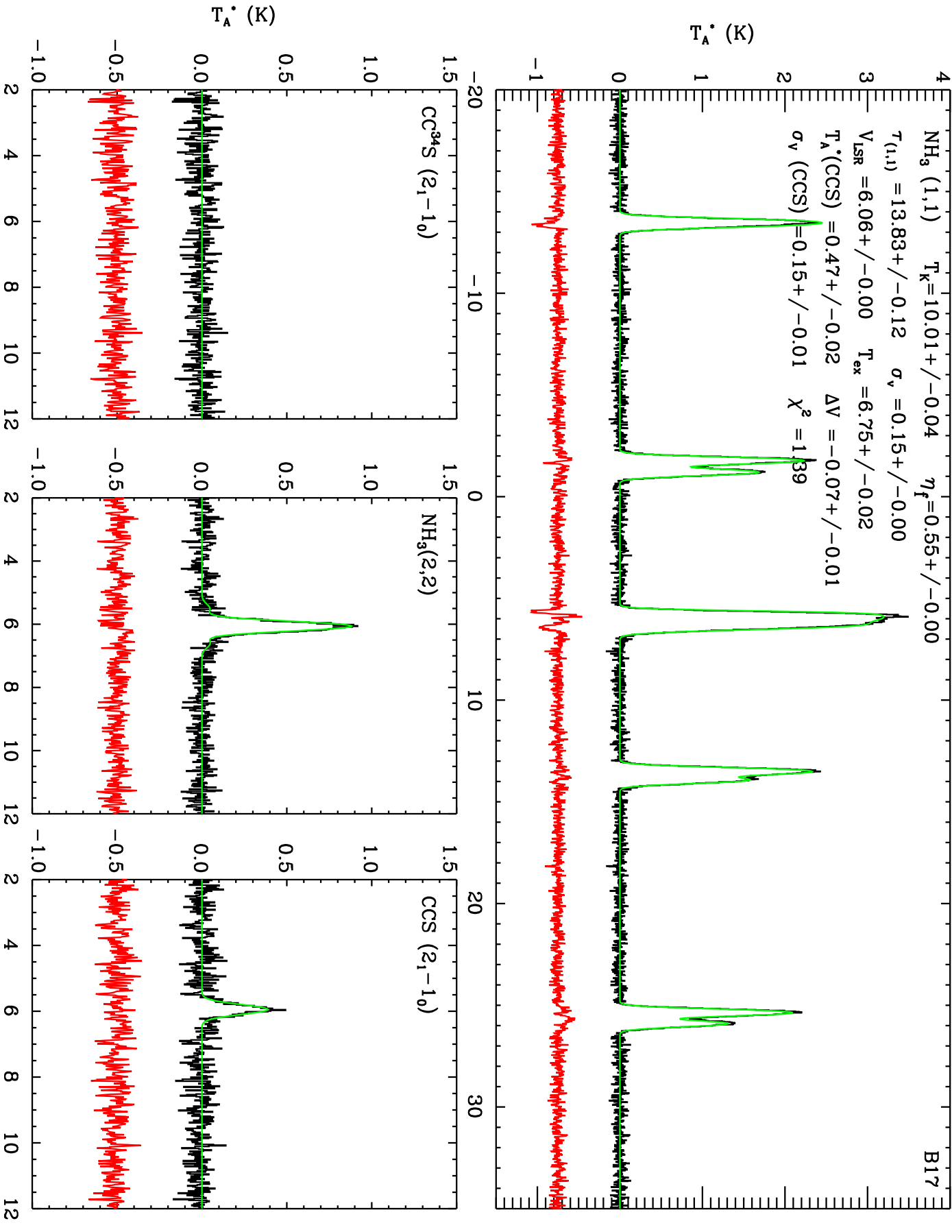




B16

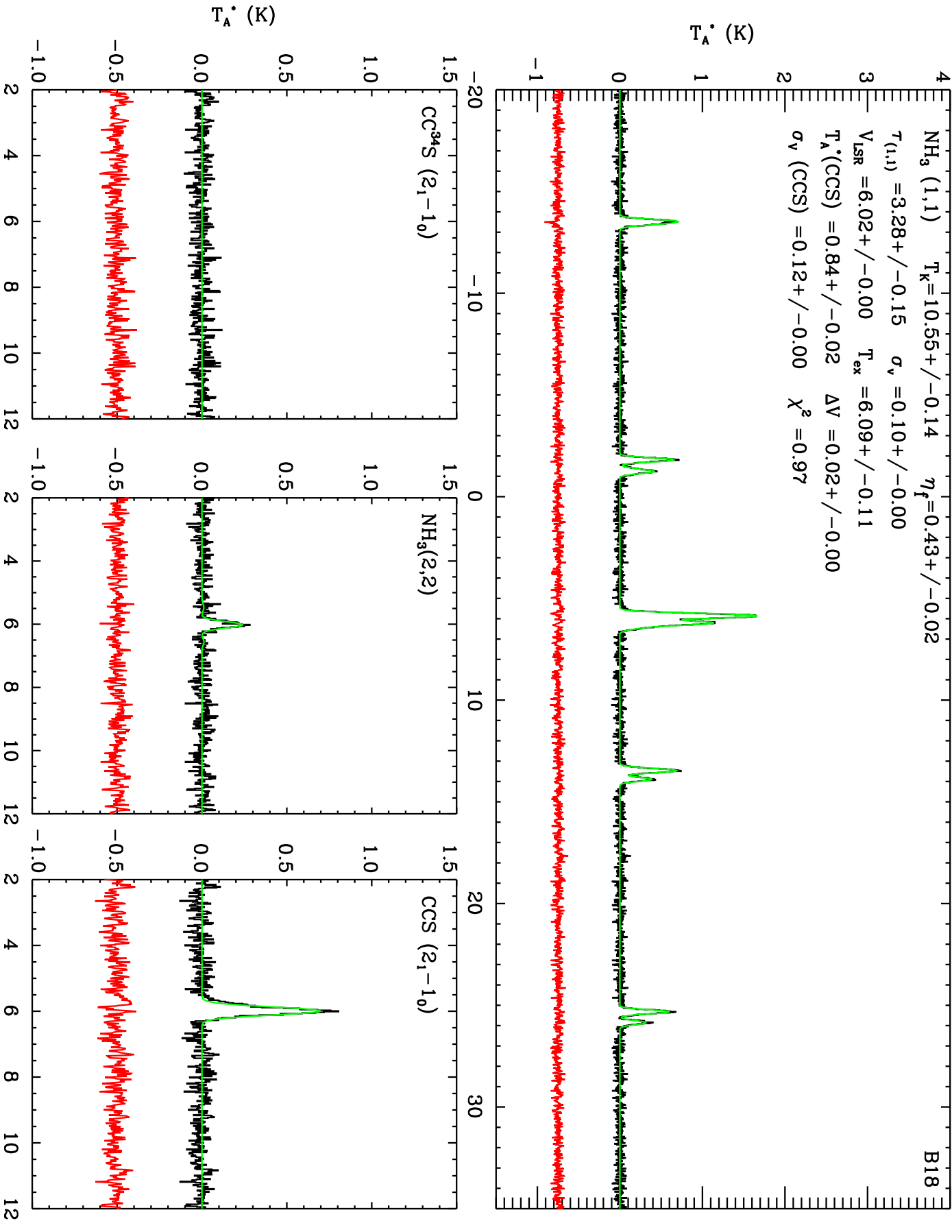
$\text{NH}_3(1,1)$ $T_K=9.20+/-0.11$ $\eta_f=0.58+/-0.01$
 $T_{(1,1)}=6.63+/-0.14$ $\sigma_v=0.12+/-0.00$
 $V_{\text{LSR}}=4.14+/-0.00$ $T_{\text{ex}}=6.47+/-0.05$
 $T_A^*(\text{CCS})=0.51+/-0.02$ $\Delta V=0.02+/-0.01$
 $\sigma_v(\text{CCS})=0.15+/-0.01$ $\chi^2=0.89$



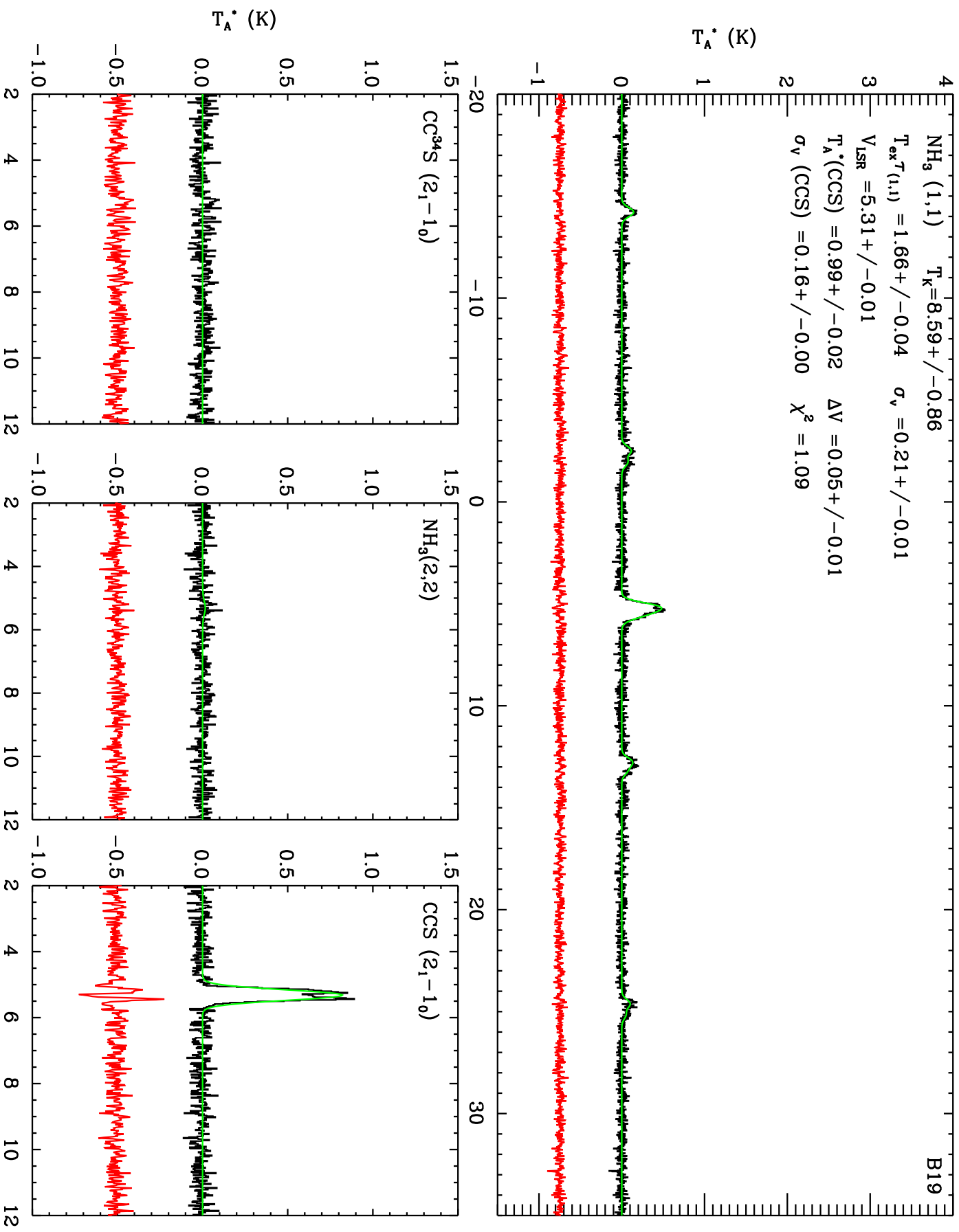


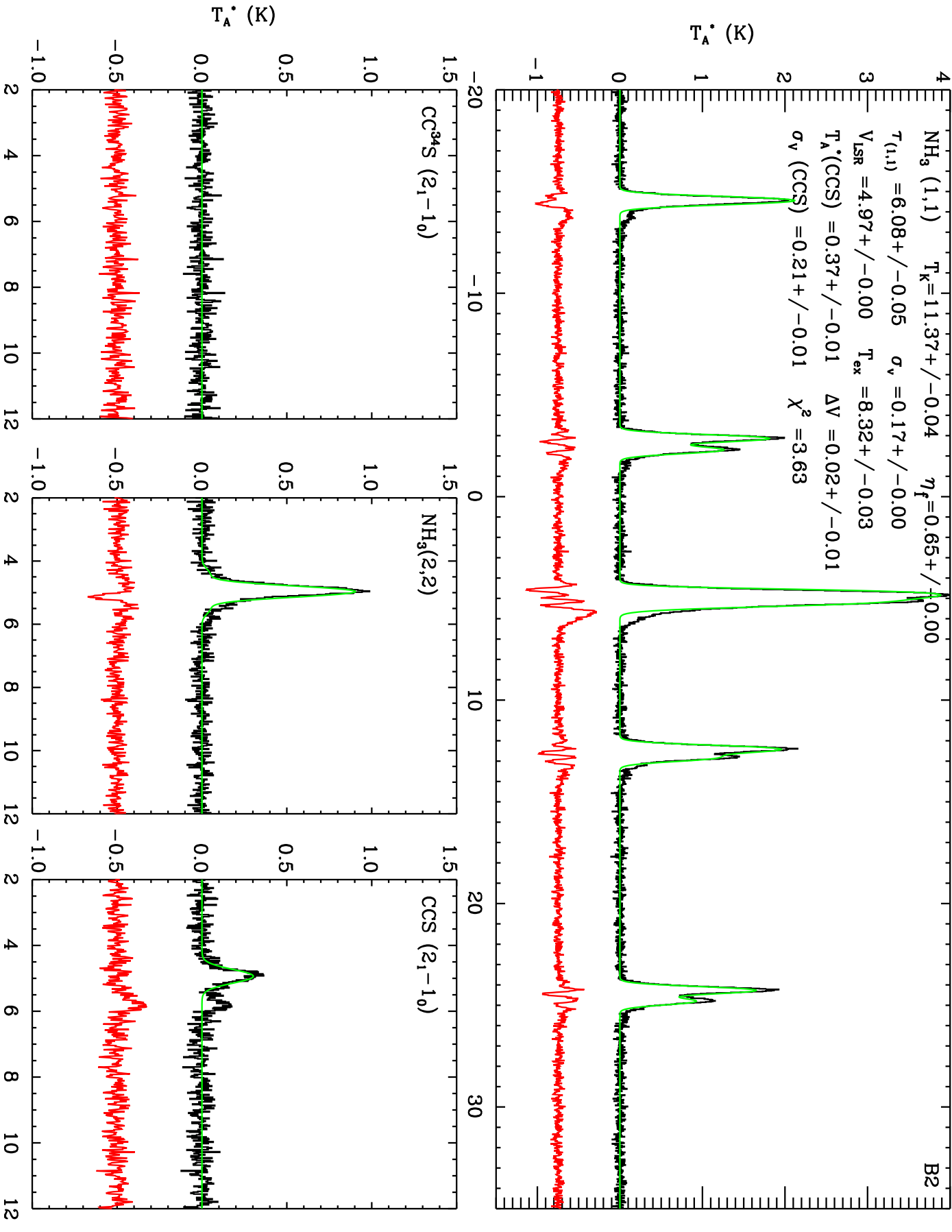
$\text{NH}_3(1,1)$ $T_K = 10.55 \pm 0.14$ $\eta_f = 0.43 \pm 0.02$
 $T_{(1,1)} = 3.28 \pm 0.15$ $\sigma_v = 0.10 \pm 0.00$
 $V_{\text{LSR}} = 6.02 \pm 0.00$ $T_{\text{ex}} = 6.09 \pm 0.11$
 $T_A^*(\text{CCS}) = 0.84 \pm 0.02$ $\Delta V = 0.02 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.12 \pm 0.00$ $\chi^2 = 0.97$

B18



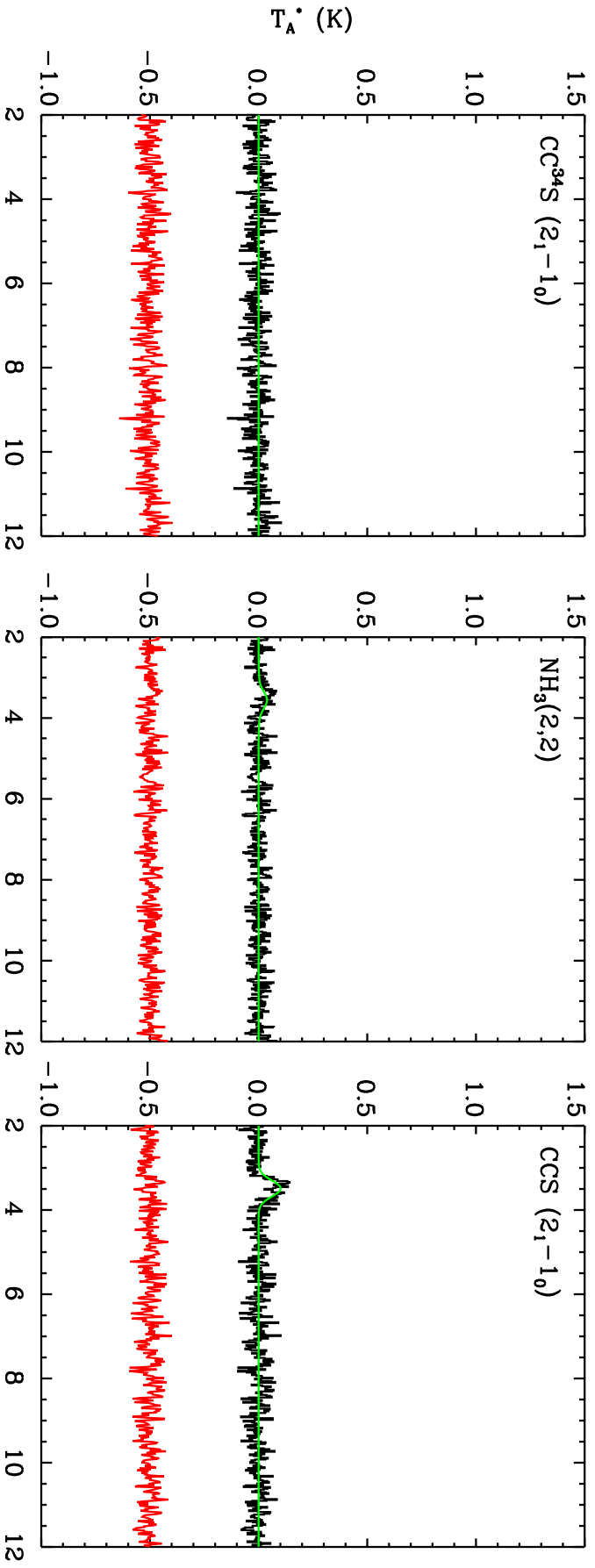
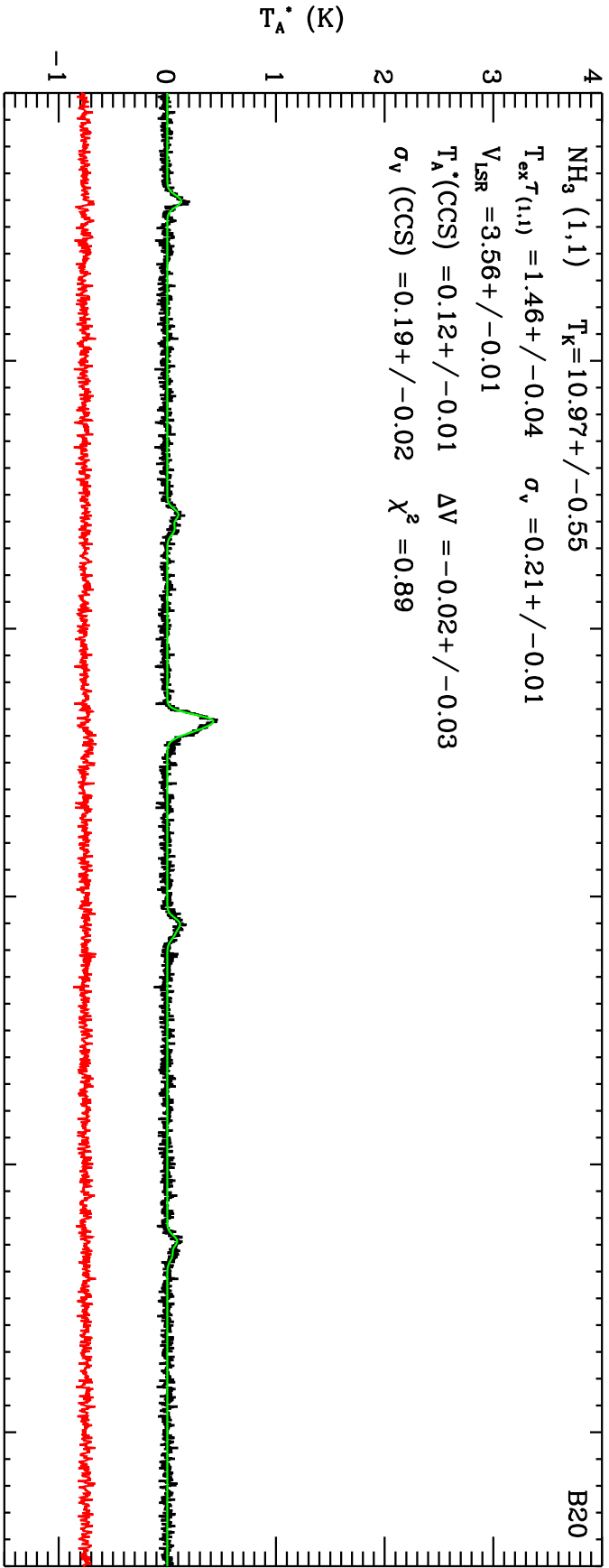
$\text{NH}_3(1,1)$ $T_K = 8.59 \pm 0.86$
 $T_{\text{ex}}^{T(1,1)} = 1.66 \pm 0.04$ $\sigma_v = 0.21 \pm 0.01$
 $V_{\text{LSR}} = 5.31 \pm 0.01$
 $T_A^*(\text{CCS}) = 0.99 \pm 0.02$ $\Delta V = 0.05 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.00$ $\chi^2 = 1.09$





B20

NH₃ (1,1) $T_K = 10.97 \pm 0.55$
 $T_{\text{ex}}^{T(1,1)} = 1.46 \pm 0.04$ $\sigma_v = 0.21 \pm 0.01$
 $V_{\text{LSR}} = 3.56 \pm 0.01$
 $T_A^*(\text{CCS}) = 0.12 \pm 0.01$ $\Delta V = -0.02 \pm 0.03$
 $\sigma_v (\text{CCS}) = 0.19 \pm 0.02$ $\chi^2 = 0.89$



B21

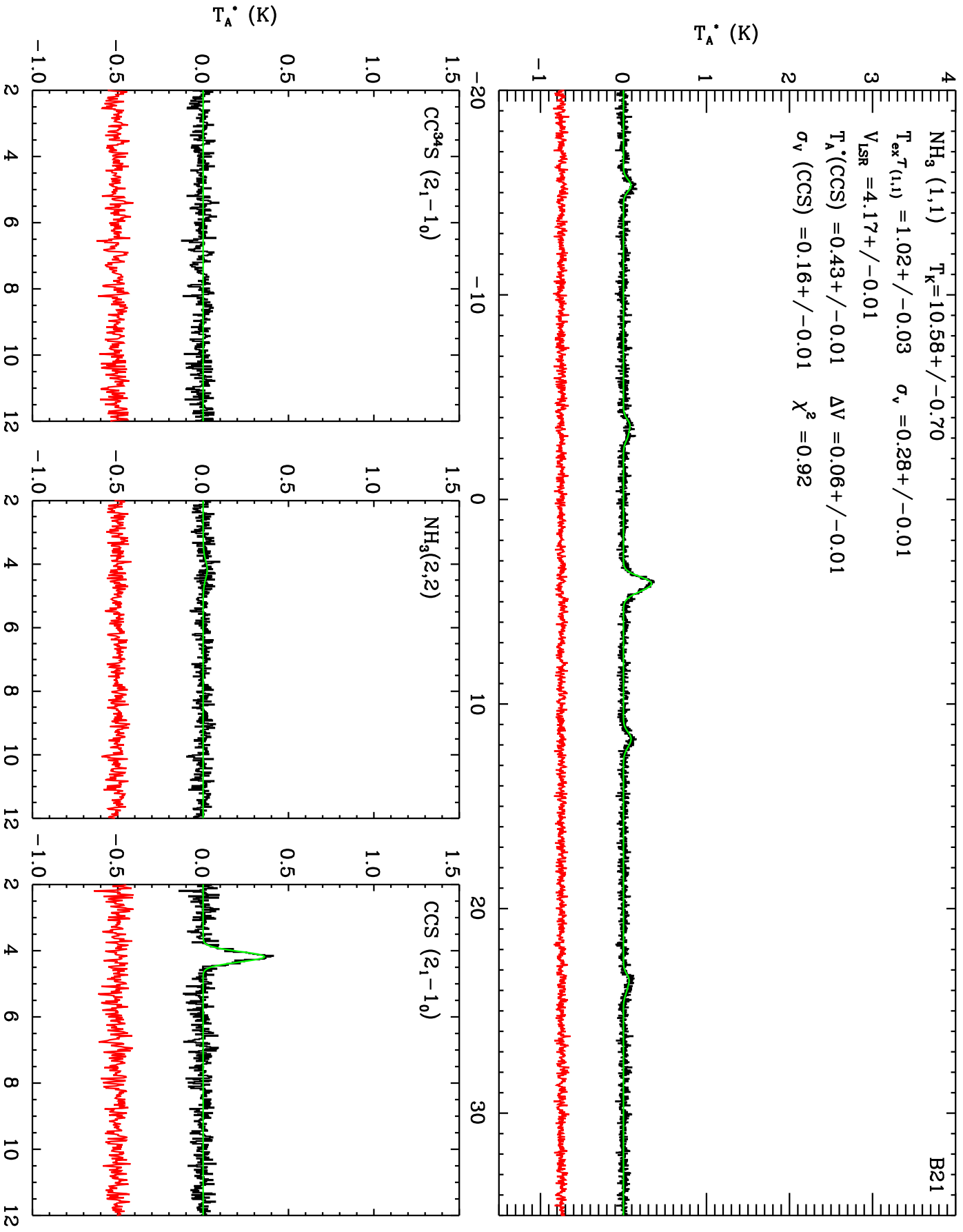
NH₃ (1,1) T_K = 10.58 ± 0.70

T_{ex}^{T(1,1)} = 1.02 ± 0.03 σ_v = 0.28 ± 0.01

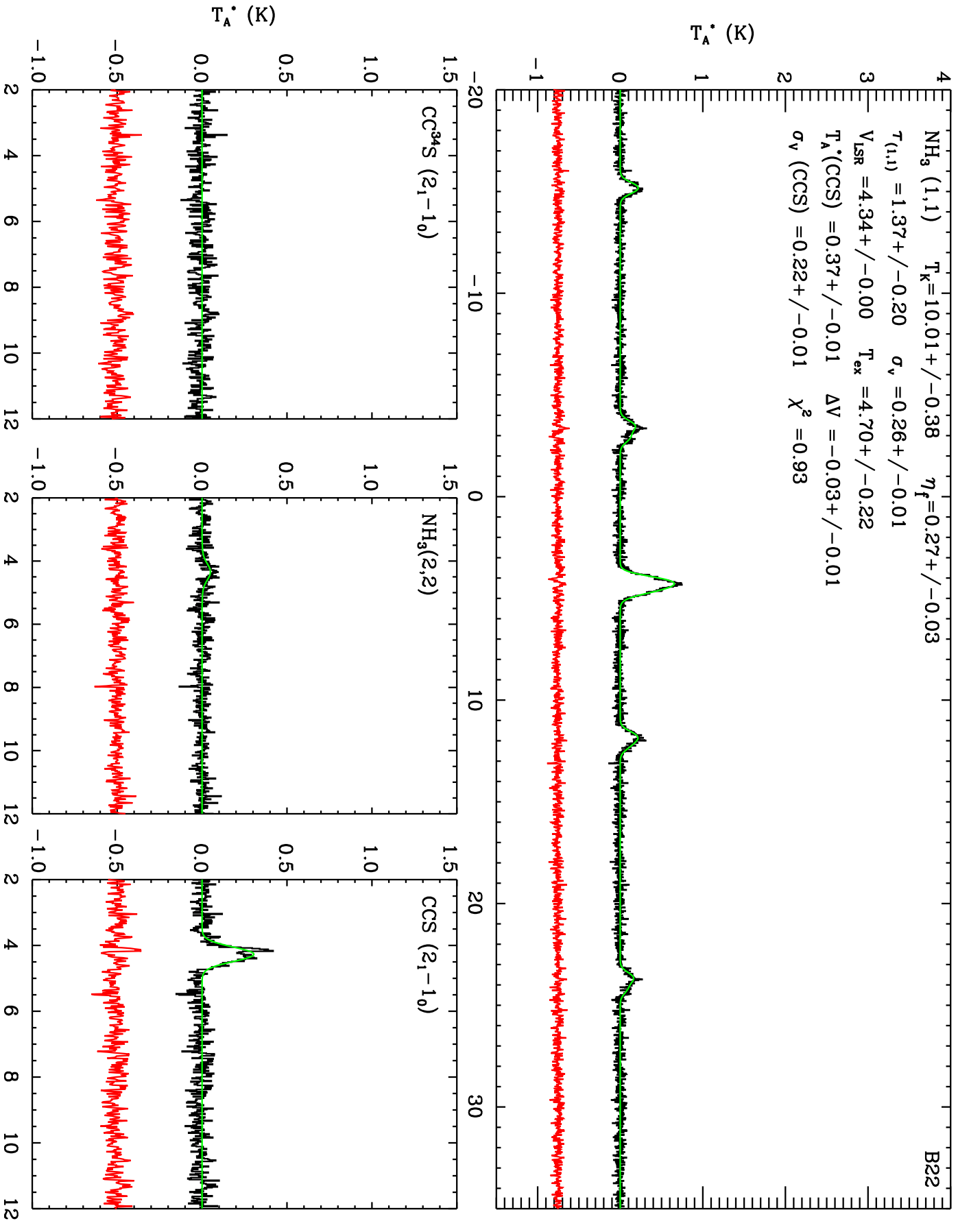
V_{LSR} = 4.17 ± 0.01

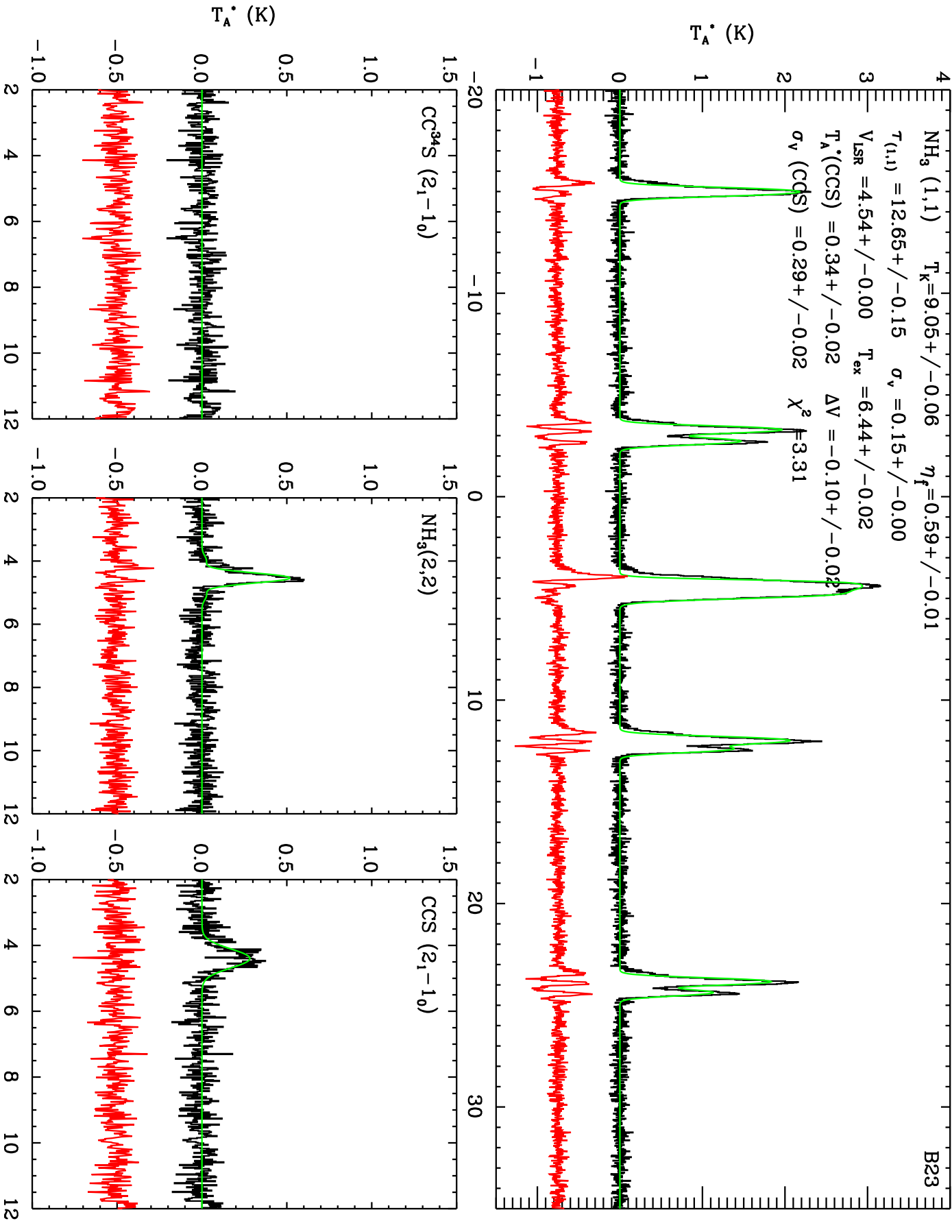
T_A^{*}(CCS) = 0.43 ± 0.01 ΔV = 0.06 ± 0.01

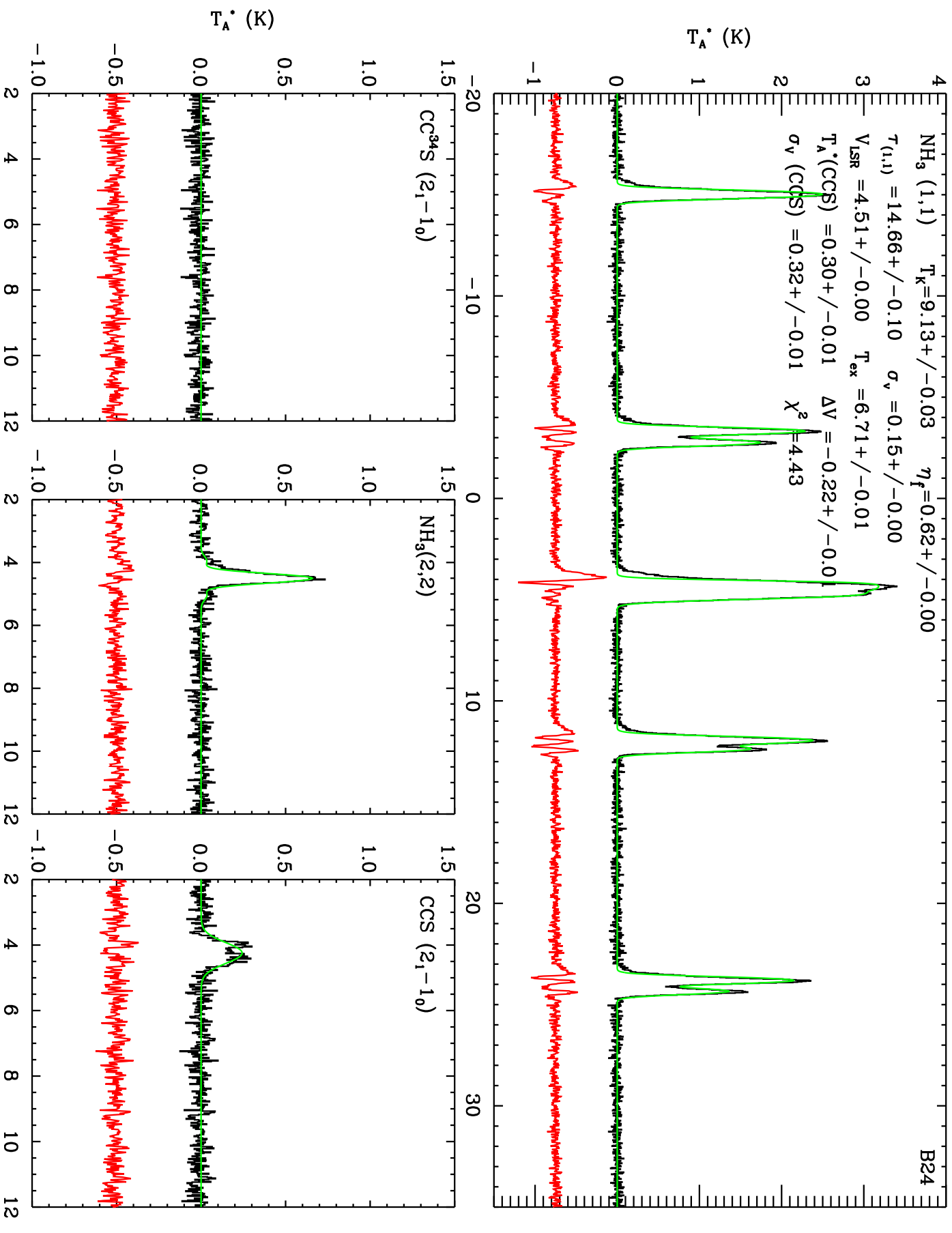
σ_v (CCS) = 0.16 ± 0.01 χ² = 0.92

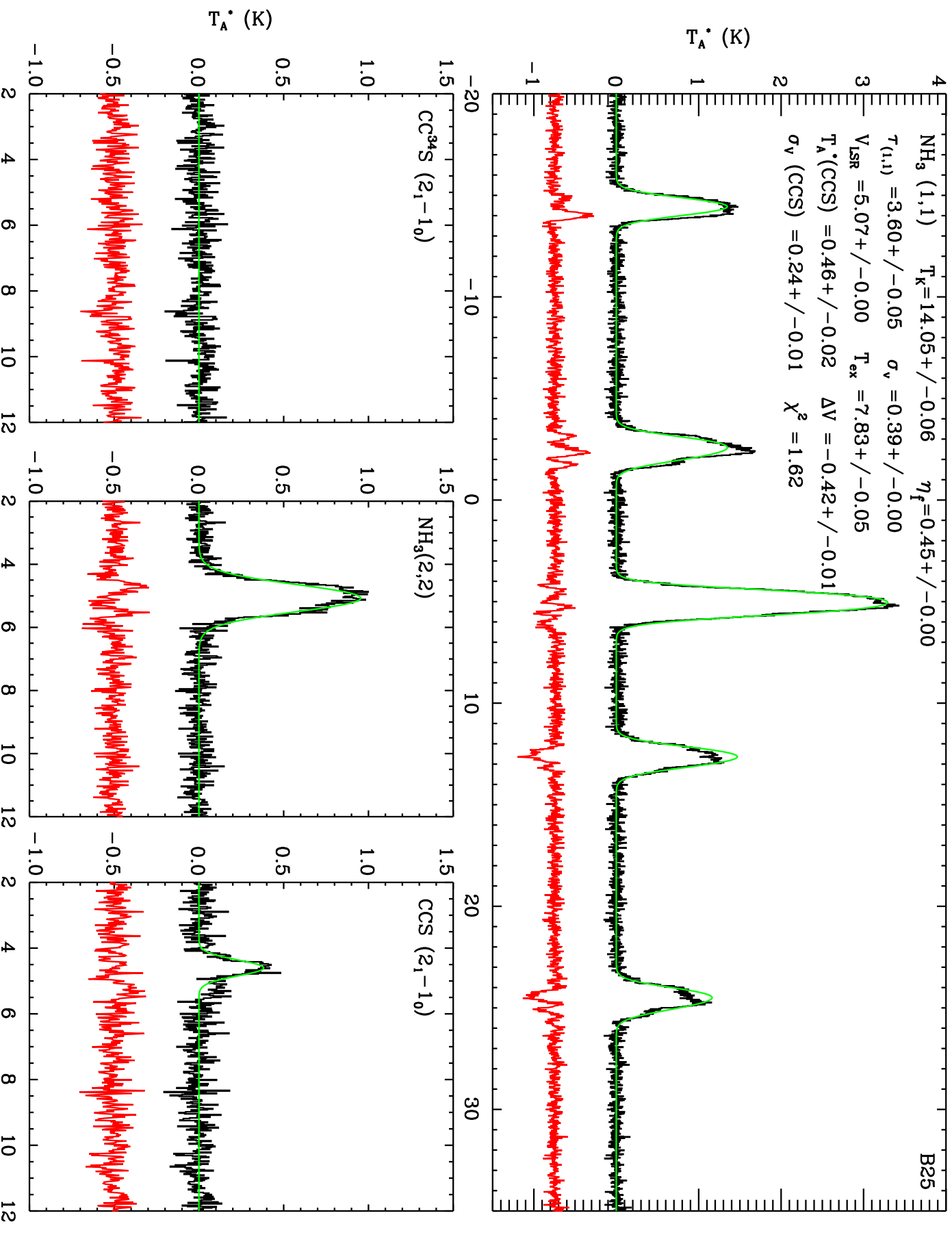


$\text{NH}_3(1,1)$ $T_K = 10.01 \pm 0.38$ $\eta_f = 0.27 \pm 0.03$
 $T_{(1,1)} = 1.37 \pm 0.20$ $\sigma_v = 0.26 \pm 0.01$
 $V_{\text{LSR}} = 4.34 \pm 0.00$ $T_{\text{ex}} = 4.70 \pm 0.22$
 $T_A^*(\text{CCS}) = 0.37 \pm 0.01$ $\Delta V = -0.03 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.22 \pm 0.01$ $\chi^2 = 0.93$









B26

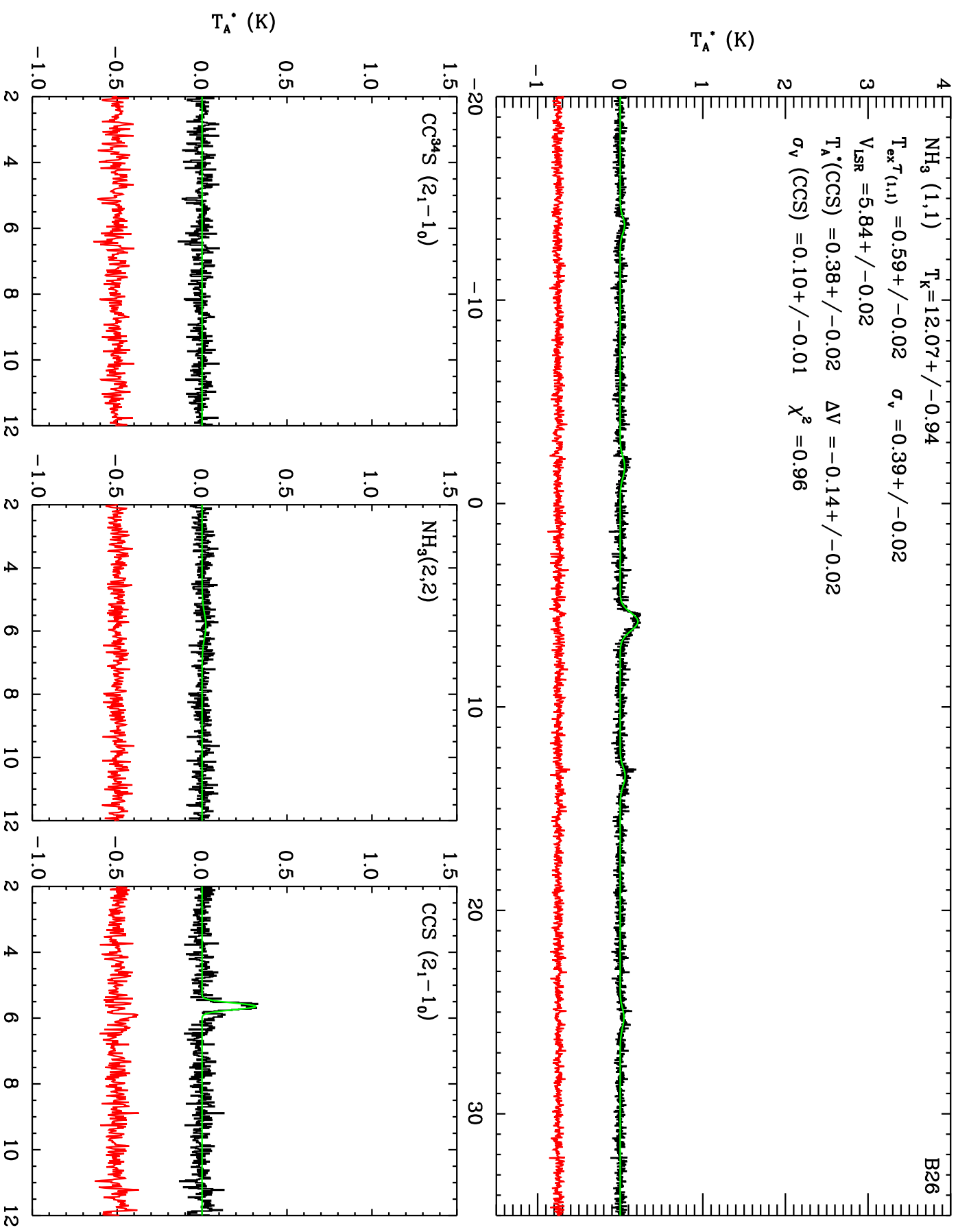
NH₃ (1,1) T_K = 12.07 + / - 0.94

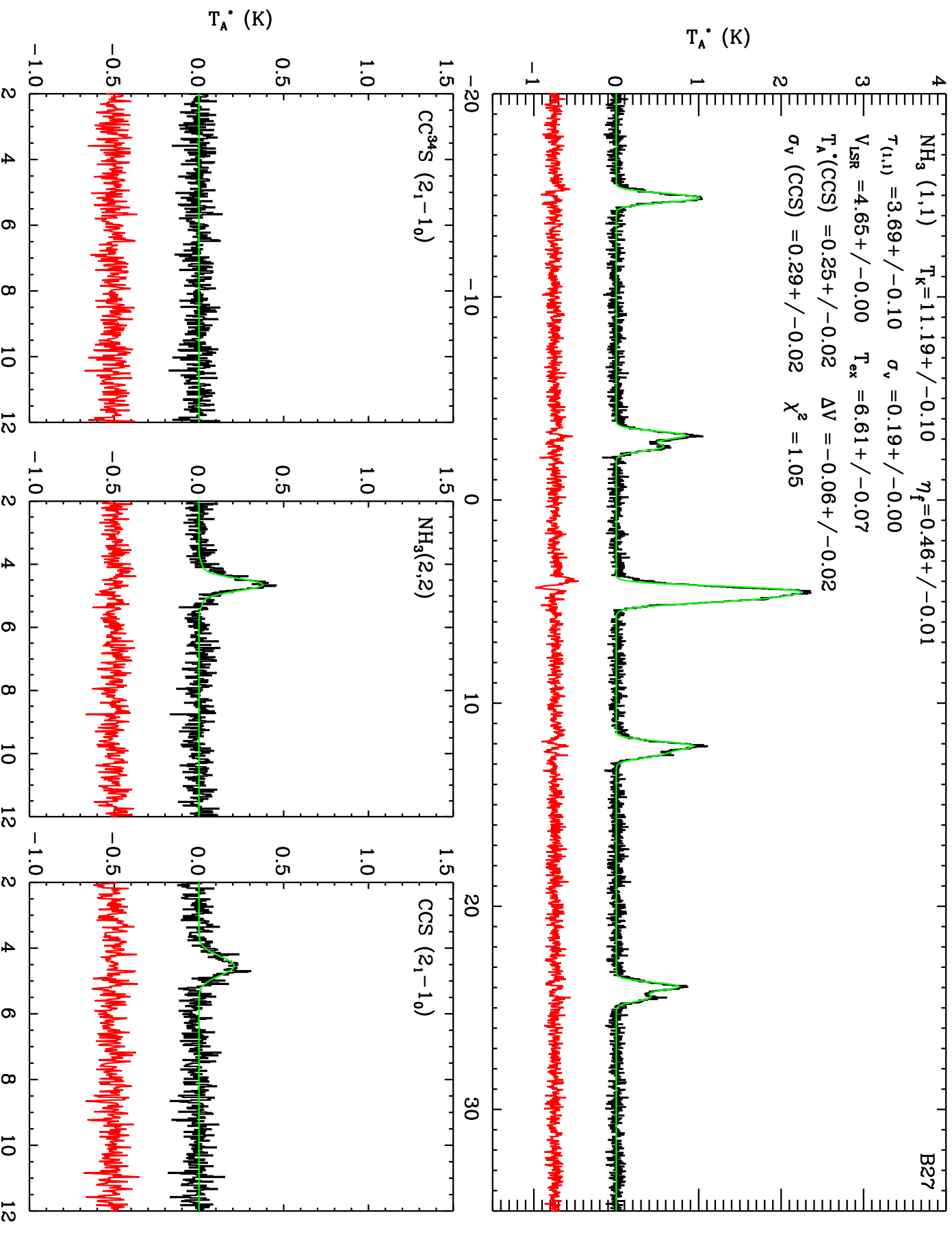
T_{ex}^{T(1,1)} = 0.59 + / - 0.02 σ_v = 0.39 + / - 0.02

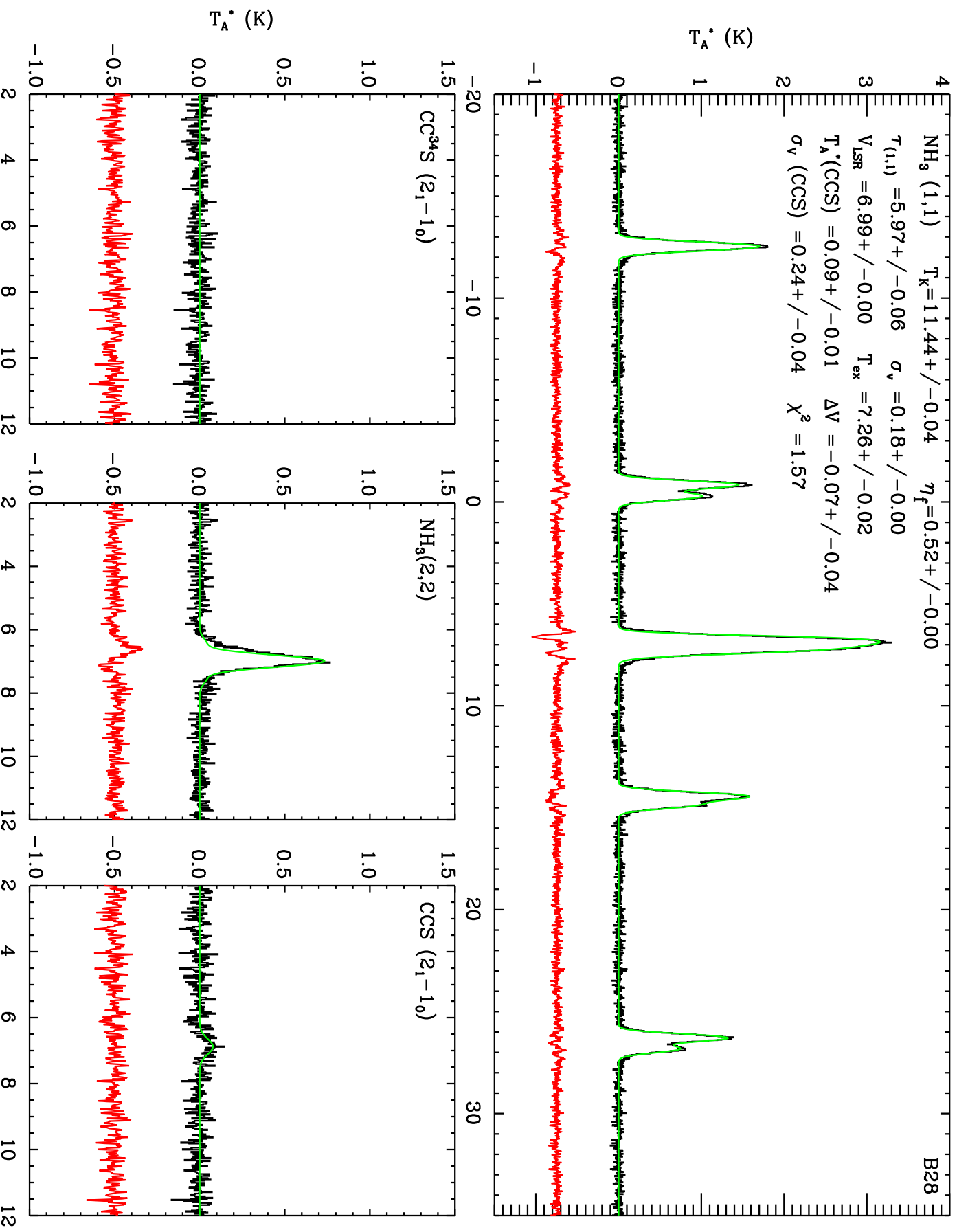
V_{LSR} = 5.84 + / - 0.02

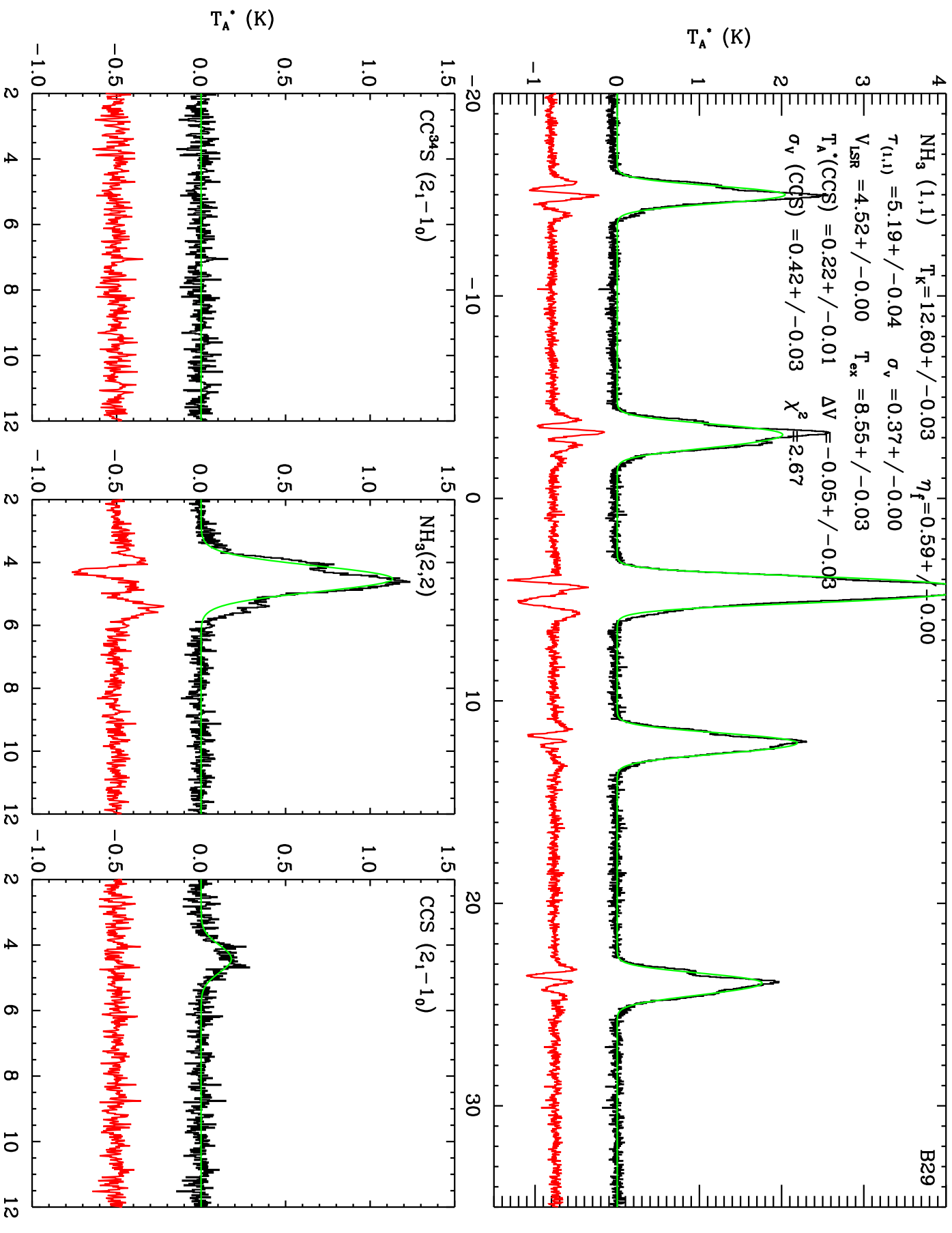
T_A^{*}(CCS) = 0.38 + / - 0.02 ΔV = -0.14 + / - 0.02

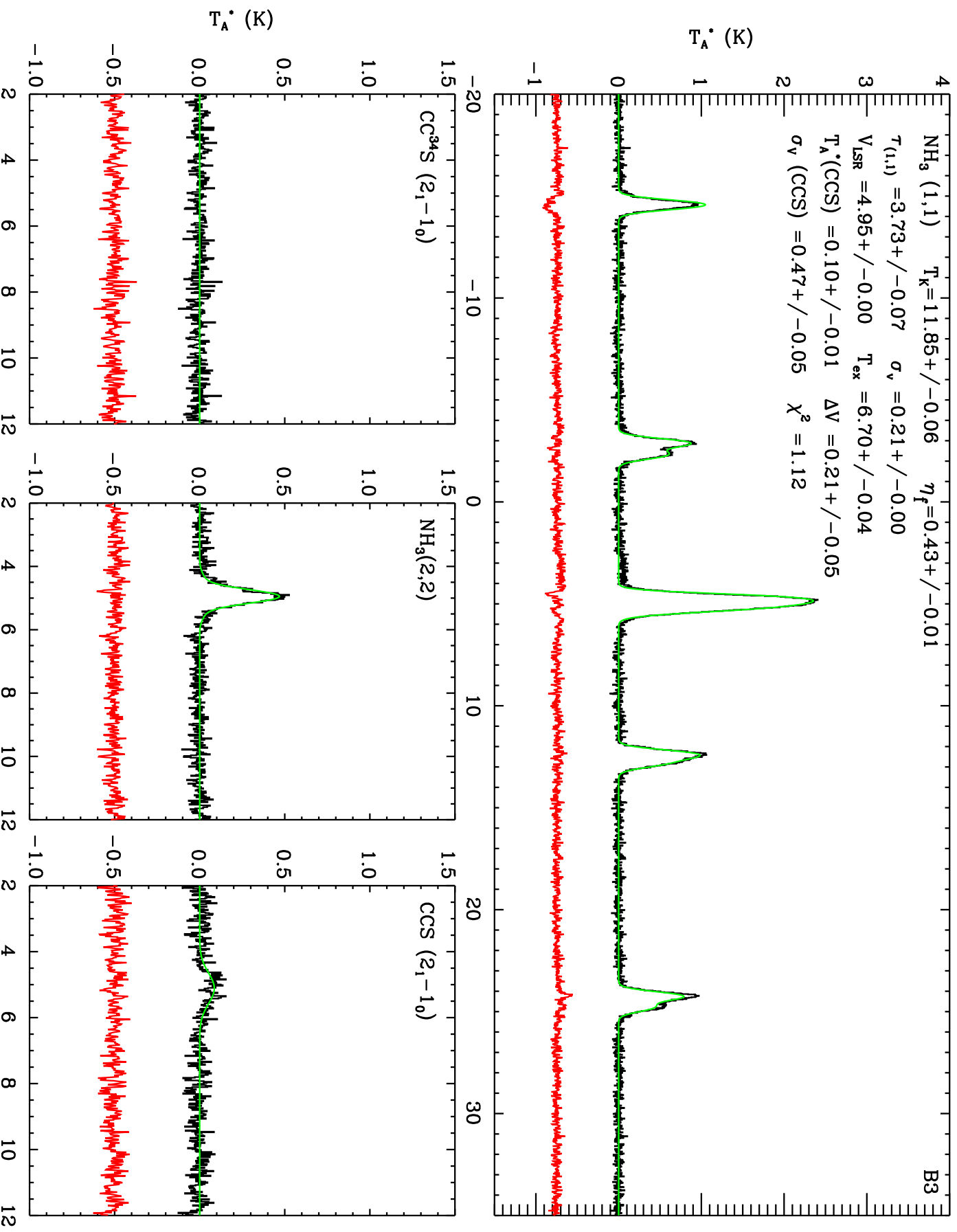
σ_v (CCS) = 0.10 + / - 0.01 χ² = 0.96

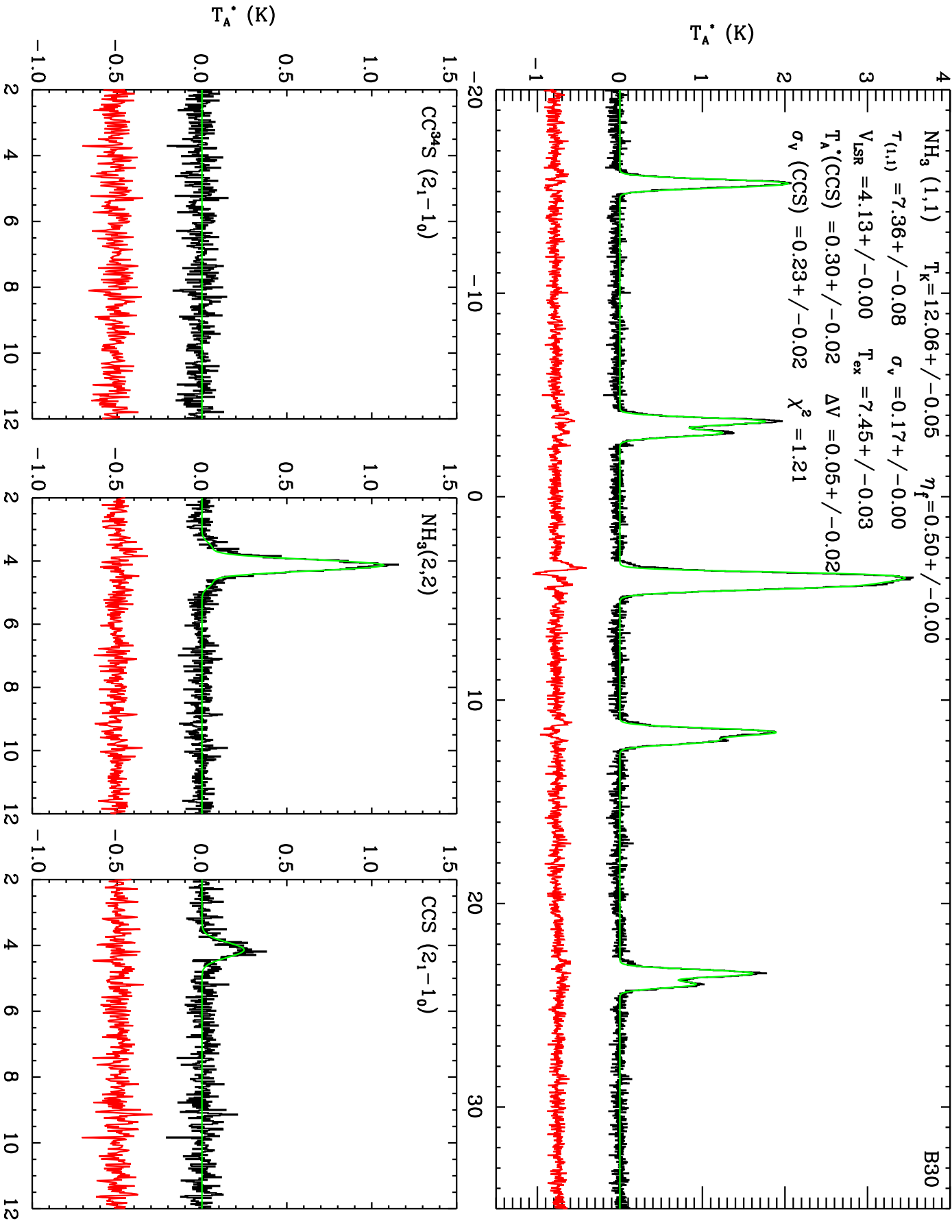






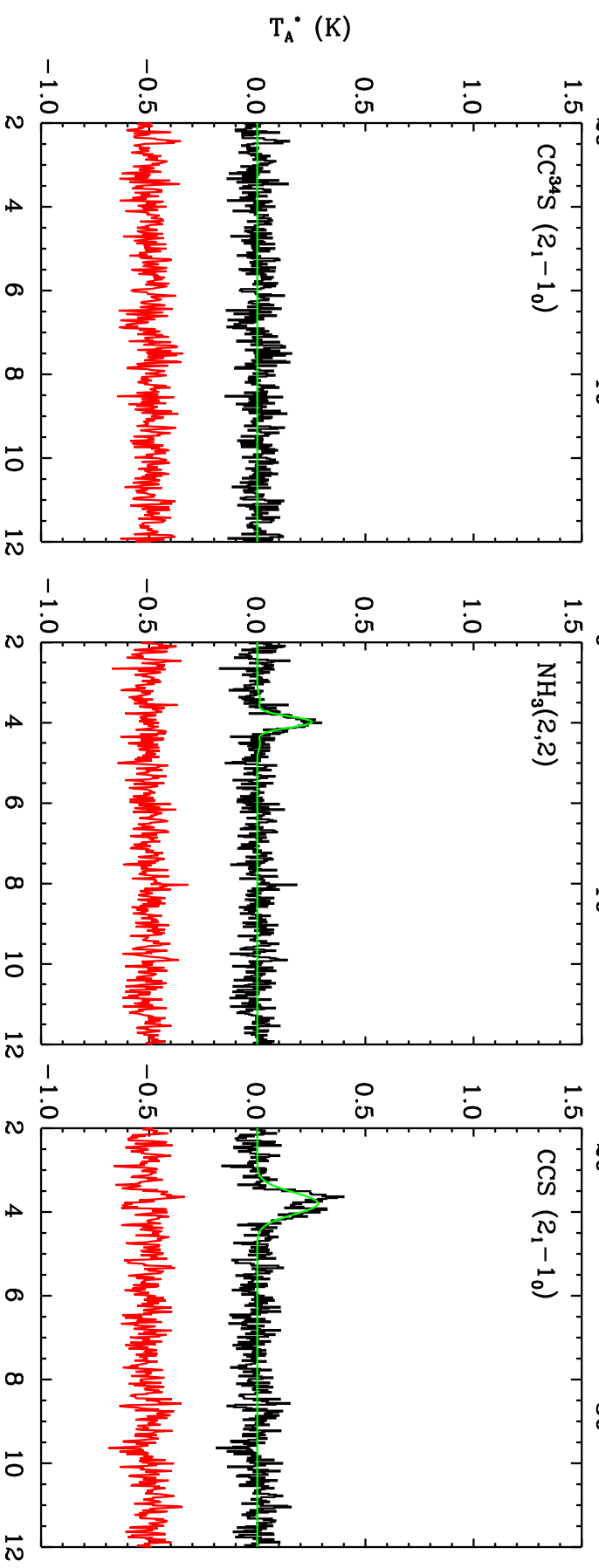
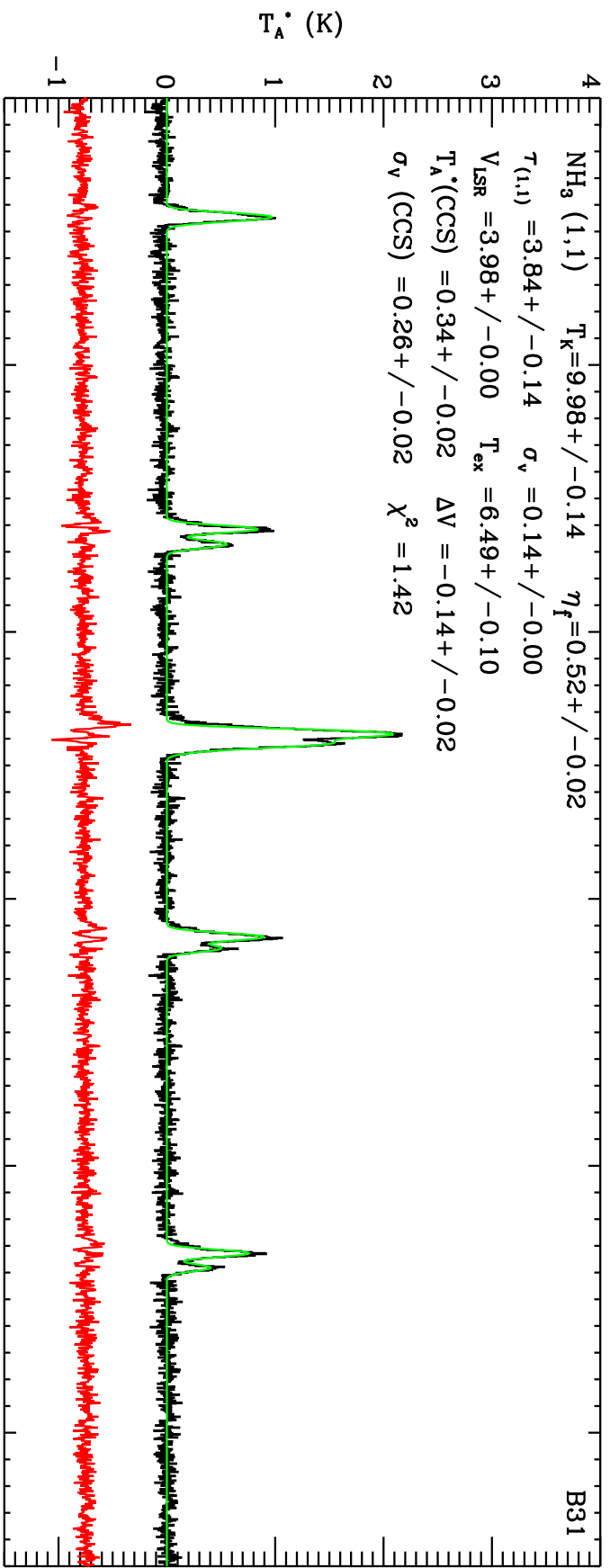






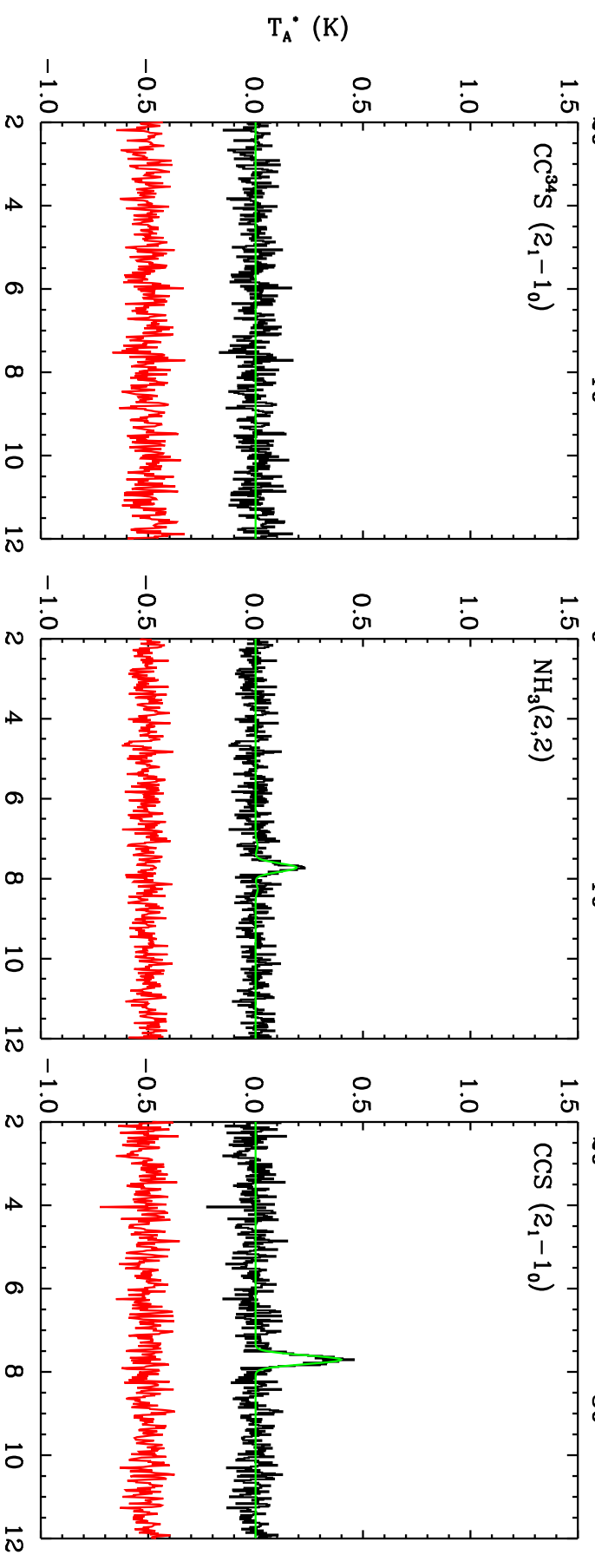
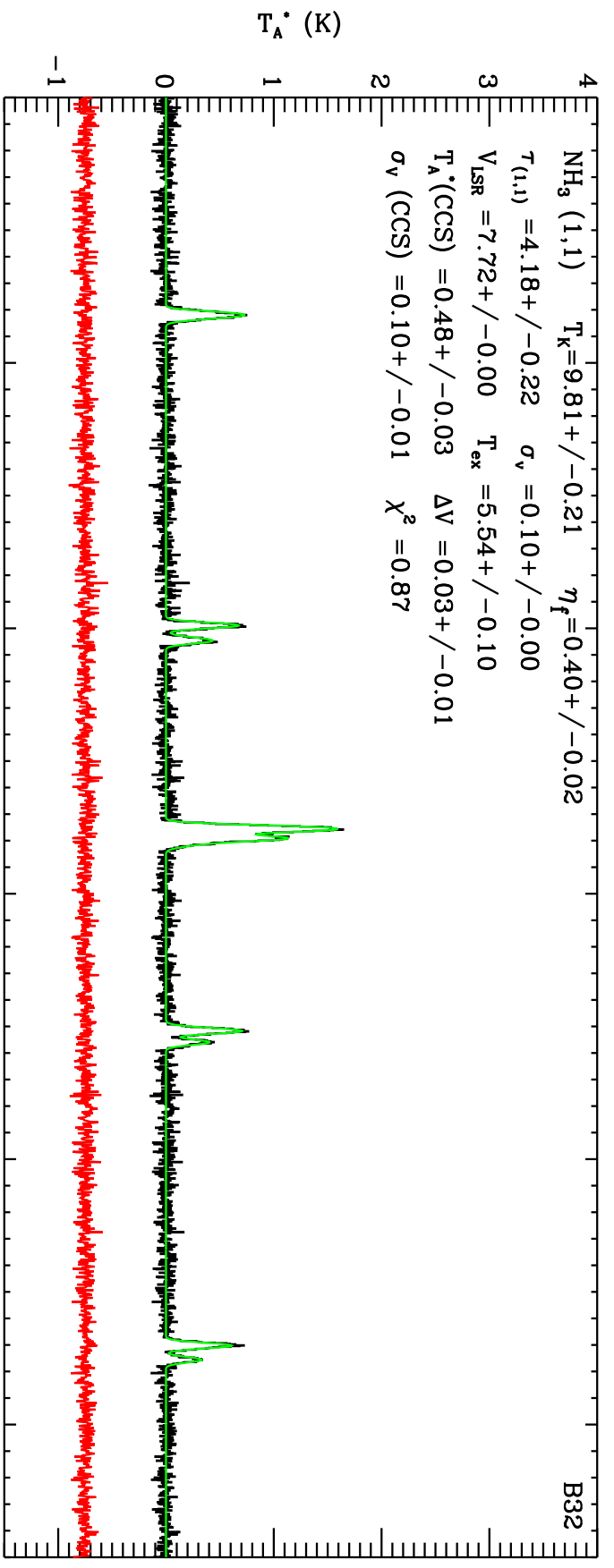
B31

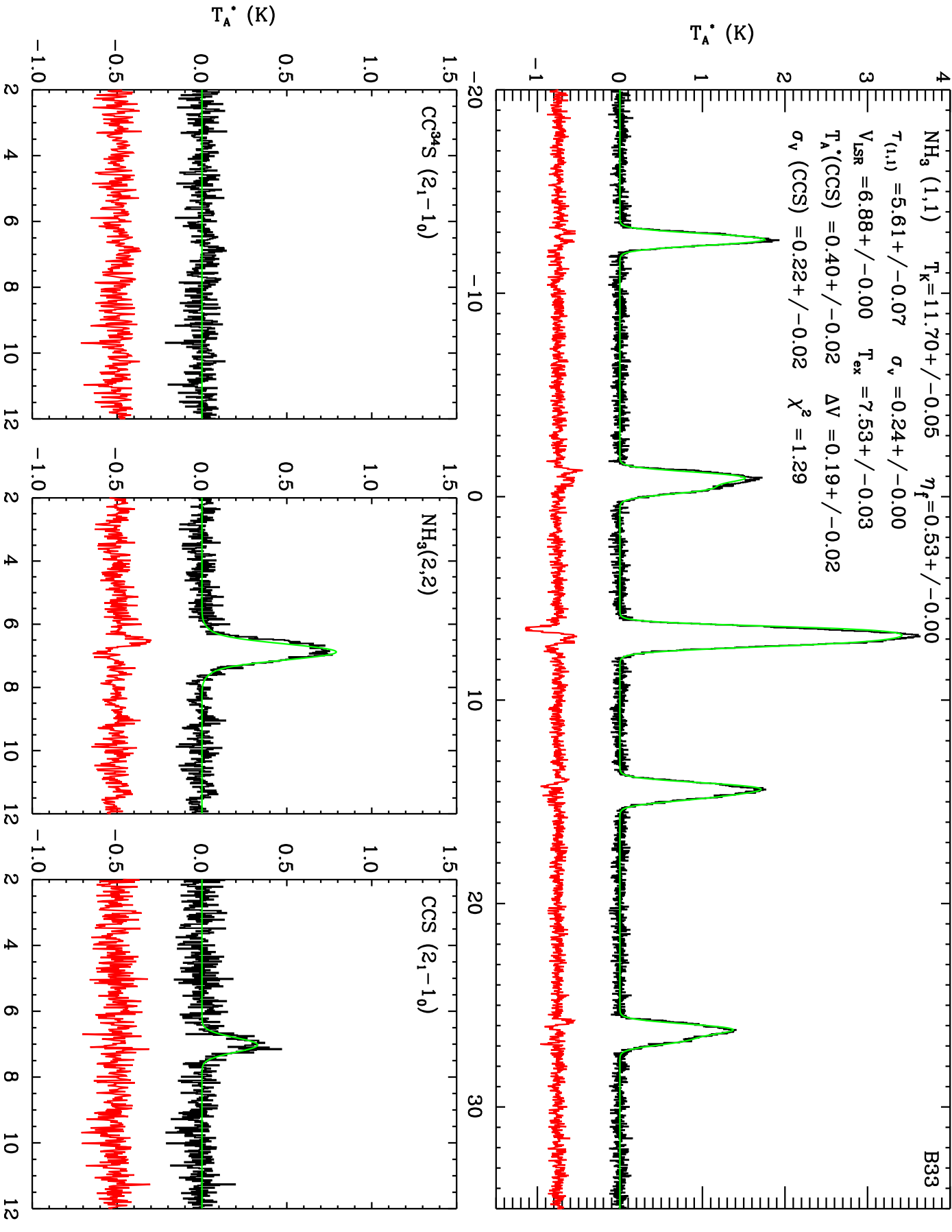
$\text{NH}_3(1,1)$ $T_K = 9.98 \pm 0.14$ $\eta_f = 0.52 \pm 0.02$
 $T_{(1,1)} = 3.84 \pm 0.14$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 3.98 \pm 0.00$ $T_{\text{ex}} = 6.49 \pm 0.10$
 $T_A^*(\text{CCS}) = 0.34 \pm 0.02$ $\Delta V = -0.14 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.26 \pm 0.02$ $\chi^2 = 1.42$



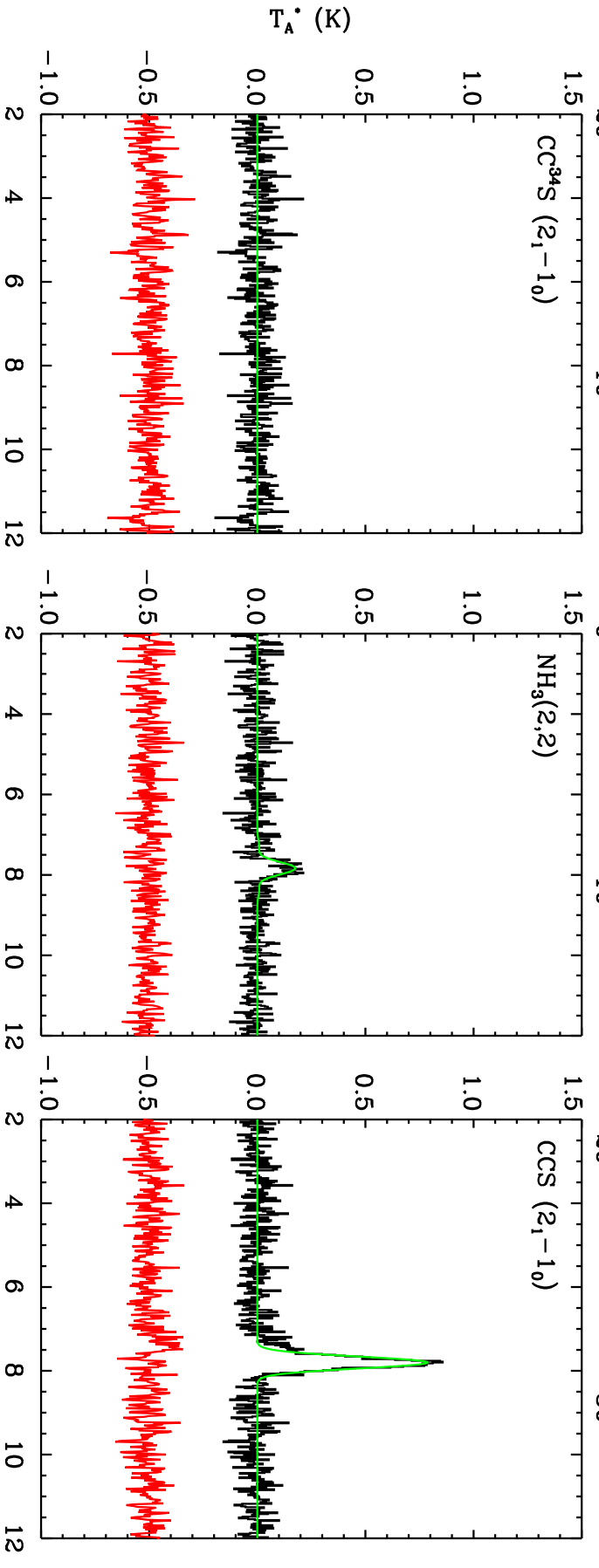
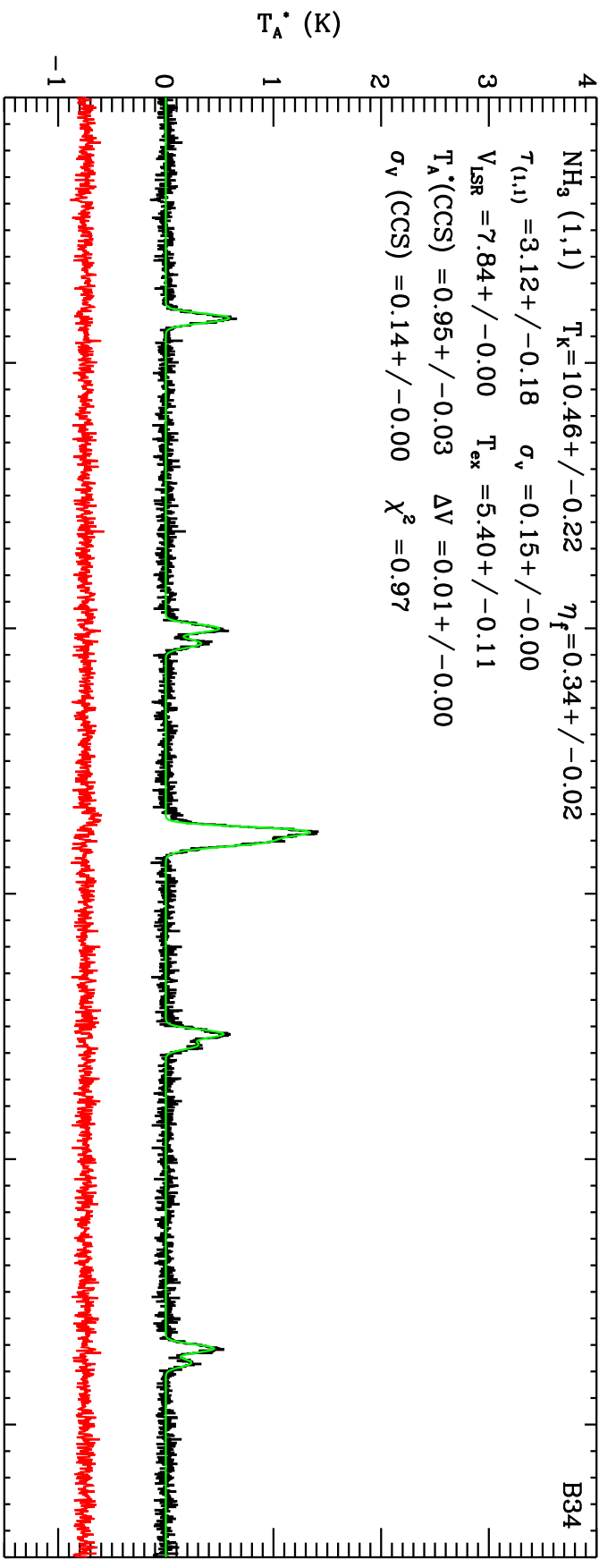
B32

$\text{NH}_3(1,1)$ $T_K = 9.81 \pm 0.21$ $\eta_f = 0.40 \pm 0.02$
 $T_{(1,1)} = 4.18 \pm 0.22$ $\sigma_v = 0.10 \pm 0.00$
 $V_{\text{LSR}} = 7.72 \pm 0.00$ $T_{\text{ex}} = 5.54 \pm 0.10$
 $T_A^*(\text{CCS}) = 0.48 \pm 0.03$ $\Delta V = 0.03 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.10 \pm 0.01$ $\chi^2 = 0.87$





$\text{NH}_3(1,1)$ $T_K = 10.46 \pm 0.22$ $\eta_f = 0.34 \pm 0.02$
 $T_{(1,1)} = 3.12 \pm 0.18$ $\sigma_v = 0.15 \pm 0.00$
 $V_{\text{LSR}} = 7.84 \pm 0.00$ $T_{\text{ex}} = 5.40 \pm 0.11$
 $T_A^*(\text{CCS}) = 0.95 \pm 0.03$ $\Delta V = 0.01 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.14 \pm 0.00$ $\chi^2 = 0.97$



B35

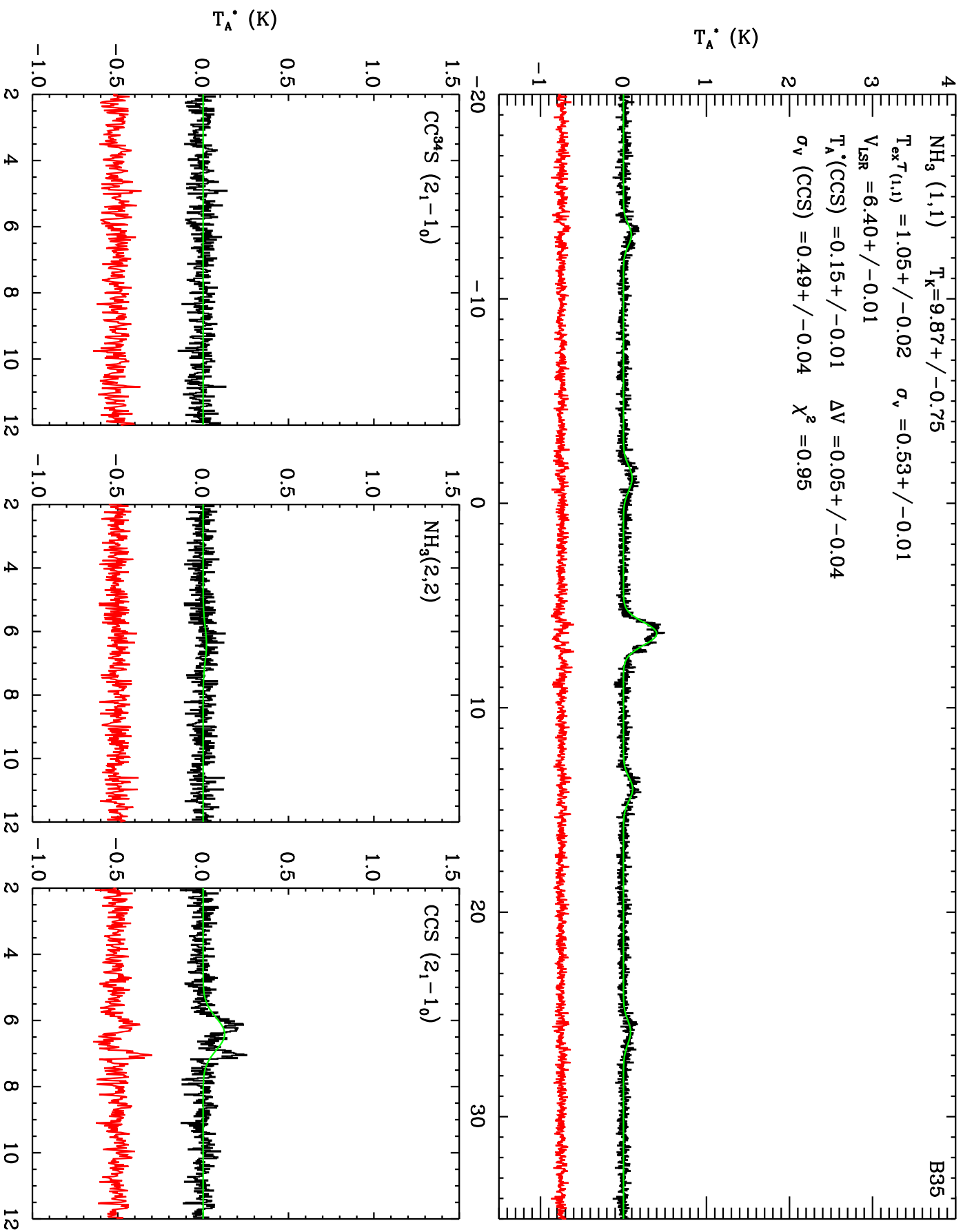
NH₃ (1,1) $T_K = 9.87 \pm 0.75$

$T_{\text{ex}}^{T(1,1)} = 1.05 \pm 0.02$ $\sigma_v = 0.53 \pm 0.01$

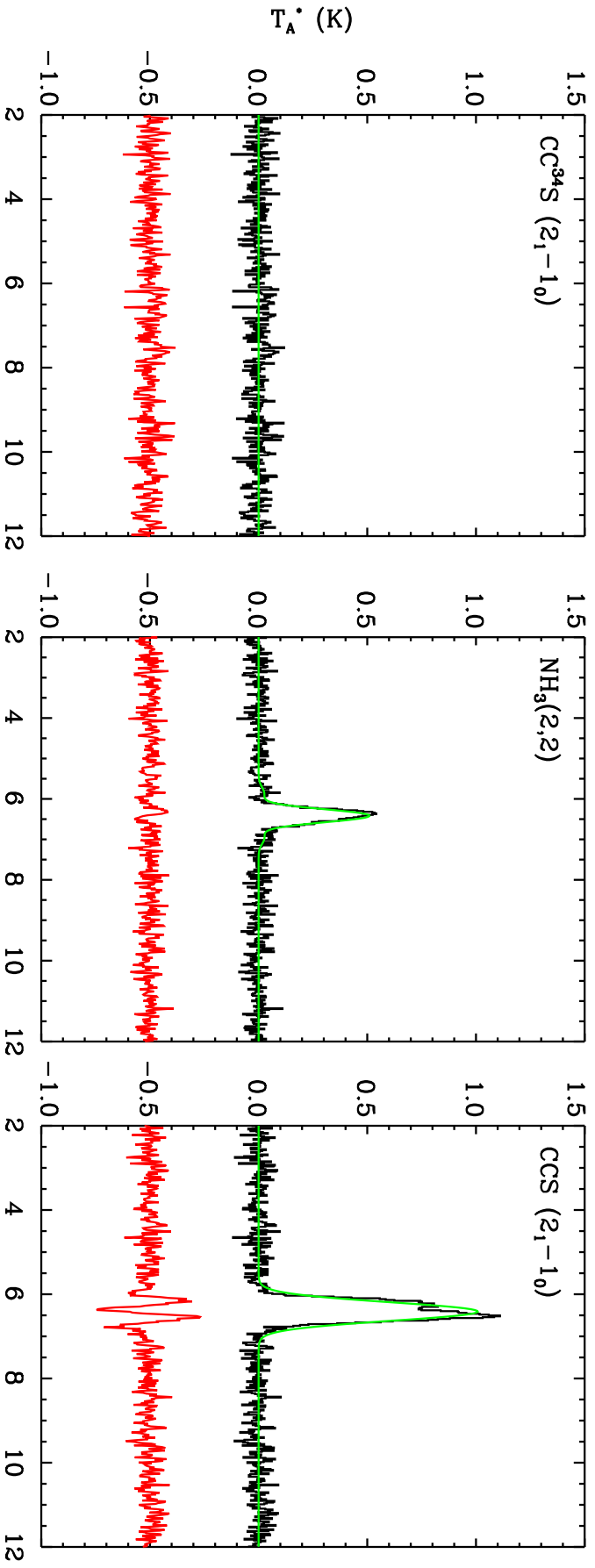
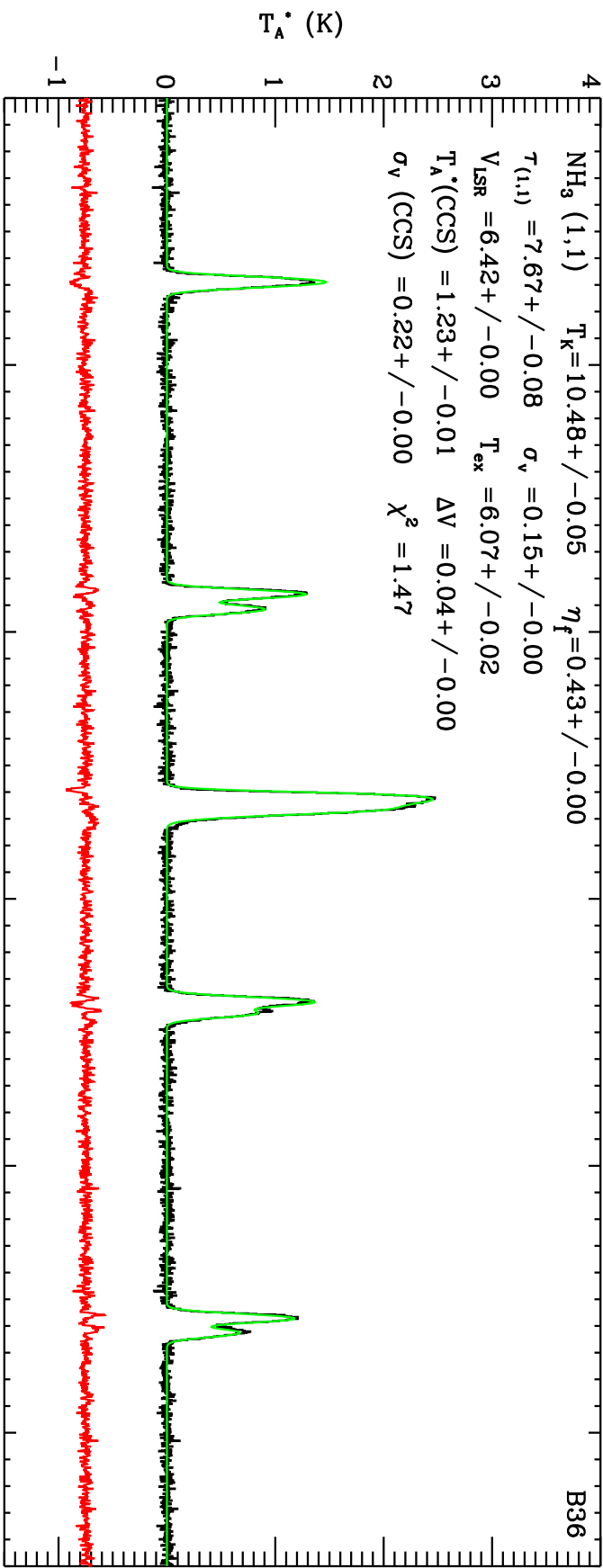
$V_{\text{LSR}} = 6.40 \pm 0.01$

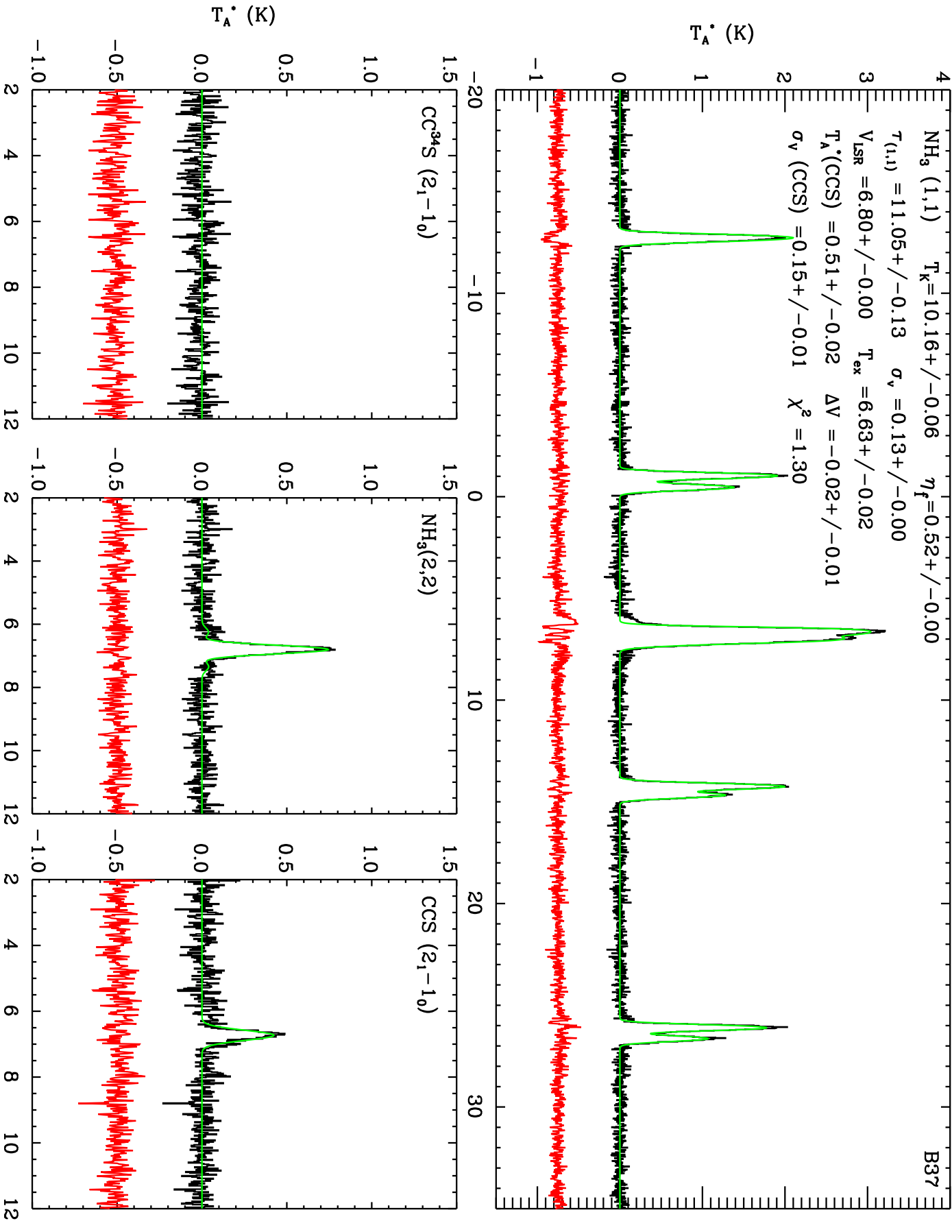
$T_A^*(\text{CCS}) = 0.15 \pm 0.01$ $\Delta V = 0.05 \pm 0.04$

$\sigma_v(\text{CCS}) = 0.49 \pm 0.04$ $\chi^2 = 0.95$

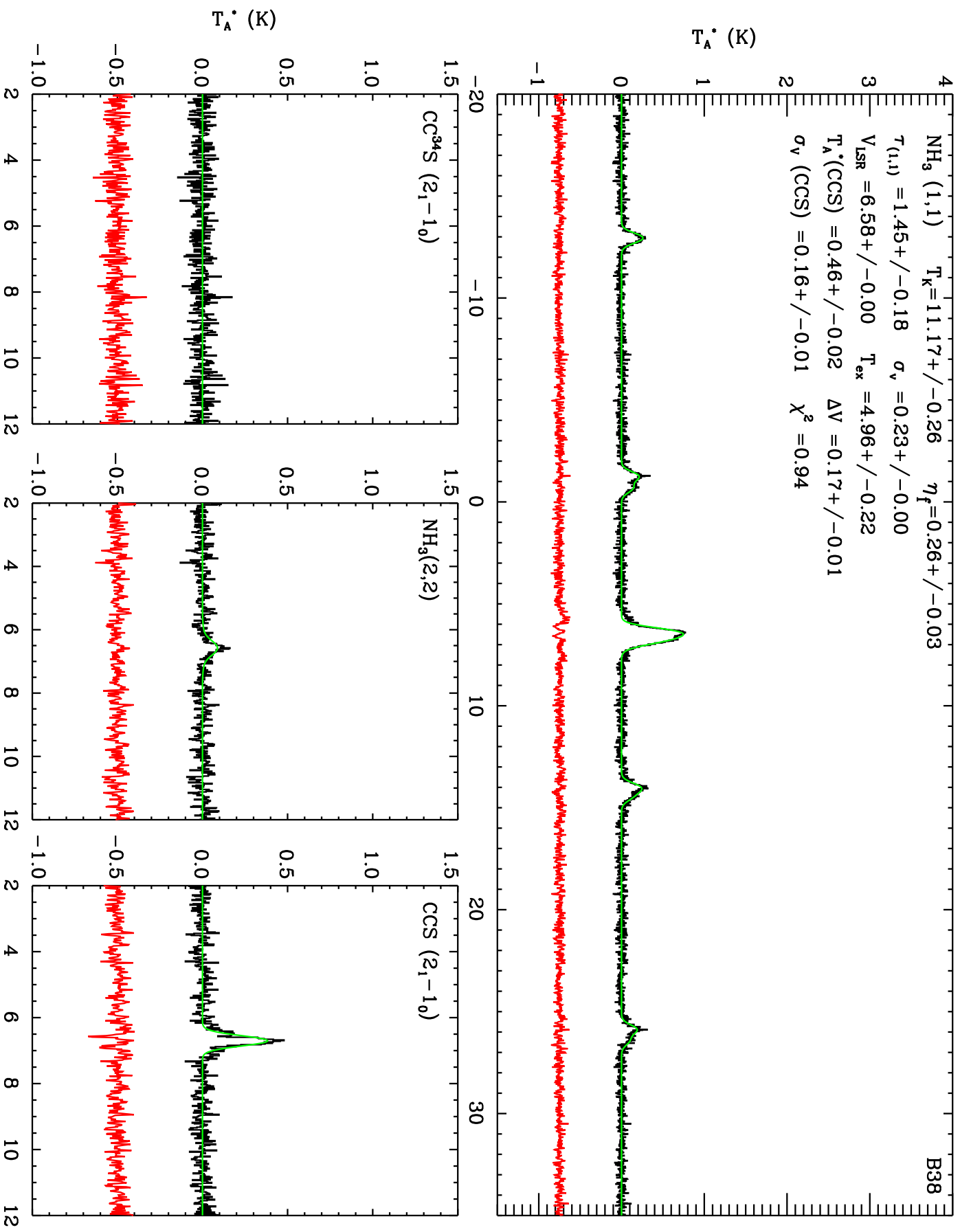


$\text{NH}_3(1,1)$ $T_K = 10.48 \pm 0.05$ $\eta_f = 0.43 \pm 0.00$
 $T_{(1,1)} = 7.67 \pm 0.08$ $\sigma_v = 0.15 \pm 0.00$
 $V_{\text{LSR}} = 6.42 \pm 0.00$ $T_{\text{ex}} = 6.07 \pm 0.02$
 $T_A^*(\text{CCS}) = 1.23 \pm 0.01$ $\Delta V = 0.04 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.22 \pm 0.00$ $\chi^2 = 1.47$

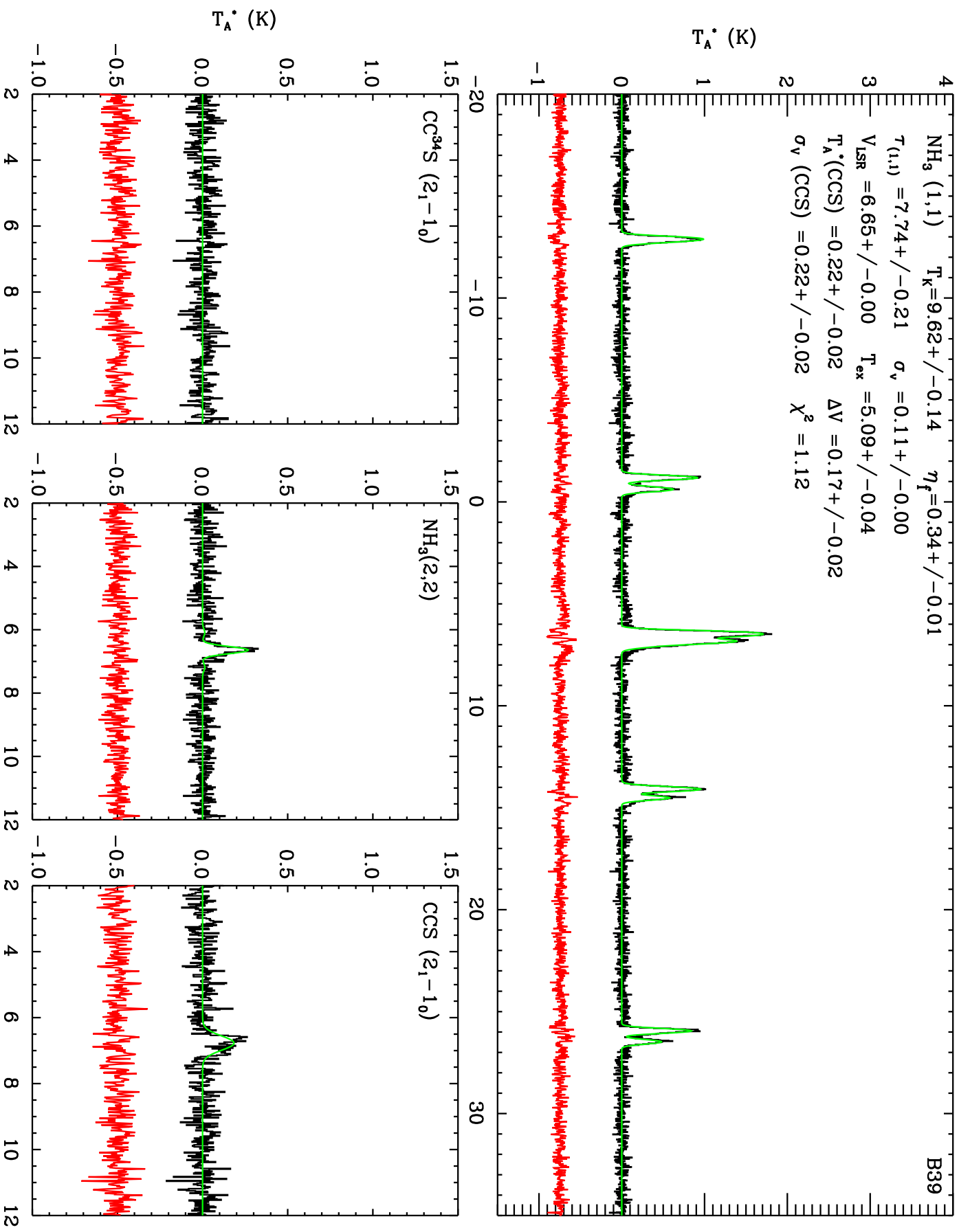




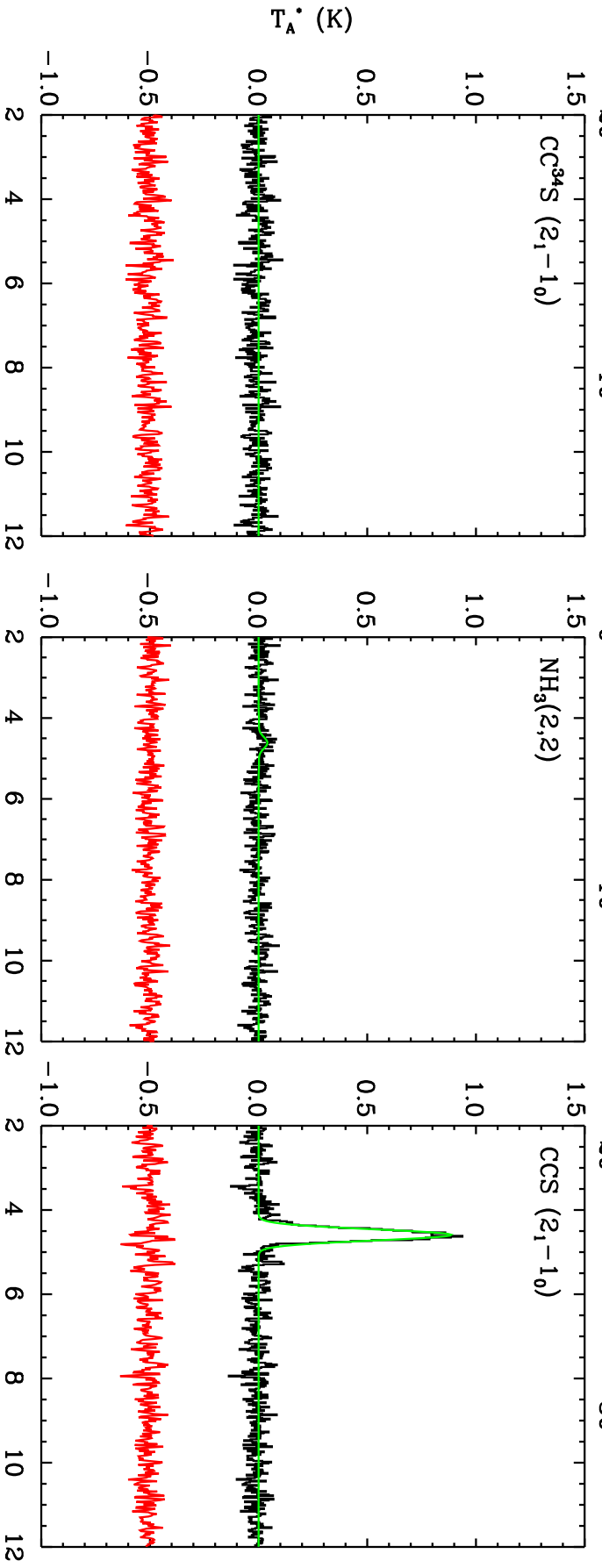
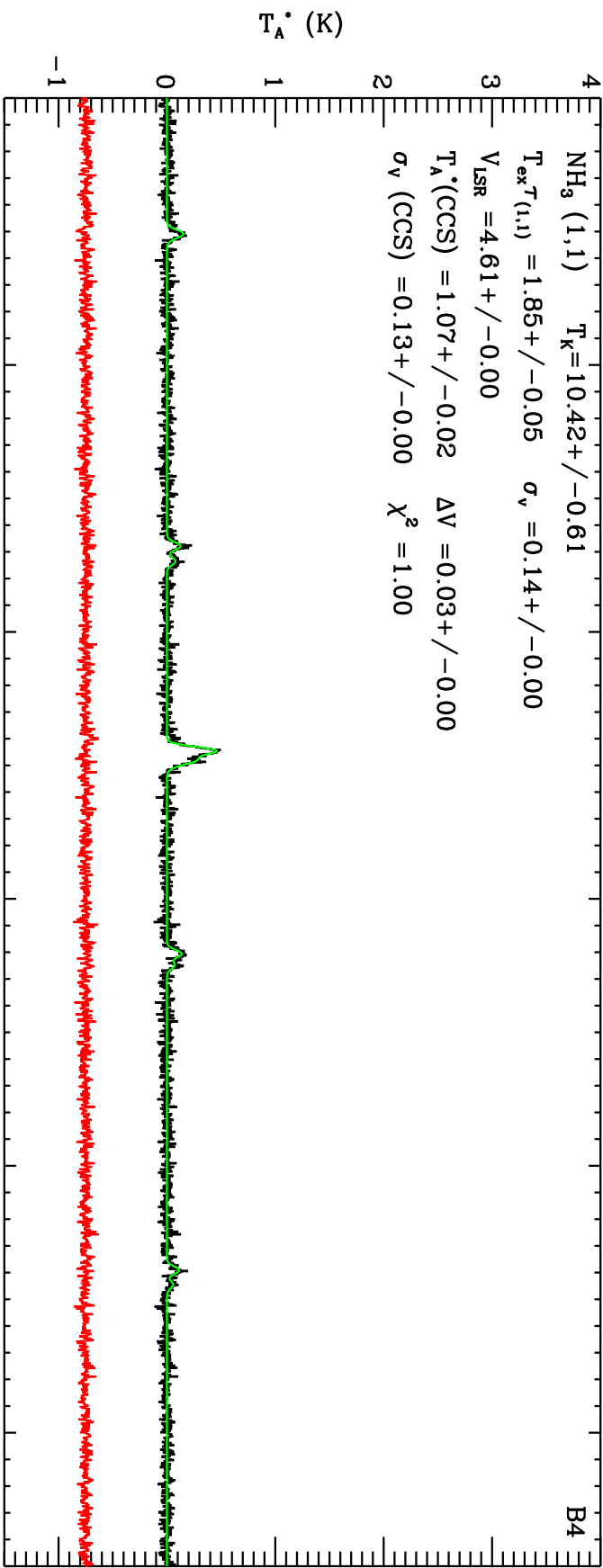
$\text{NH}_3(1,1)$ $T_K = 11.17 \pm 0.26$ $\eta_f = 0.26 \pm 0.03$
 $T_{(1,1)} = 1.45 \pm 0.18$ $\sigma_v = 0.23 \pm 0.00$
 $V_{\text{LSR}} = 6.58 \pm 0.00$ $T_{\text{ex}} = 4.96 \pm 0.22$
 $T_A^*(\text{CCS}) = 0.46 \pm 0.02$ $\Delta V = 0.17 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.01$ $\chi^2 = 0.94$

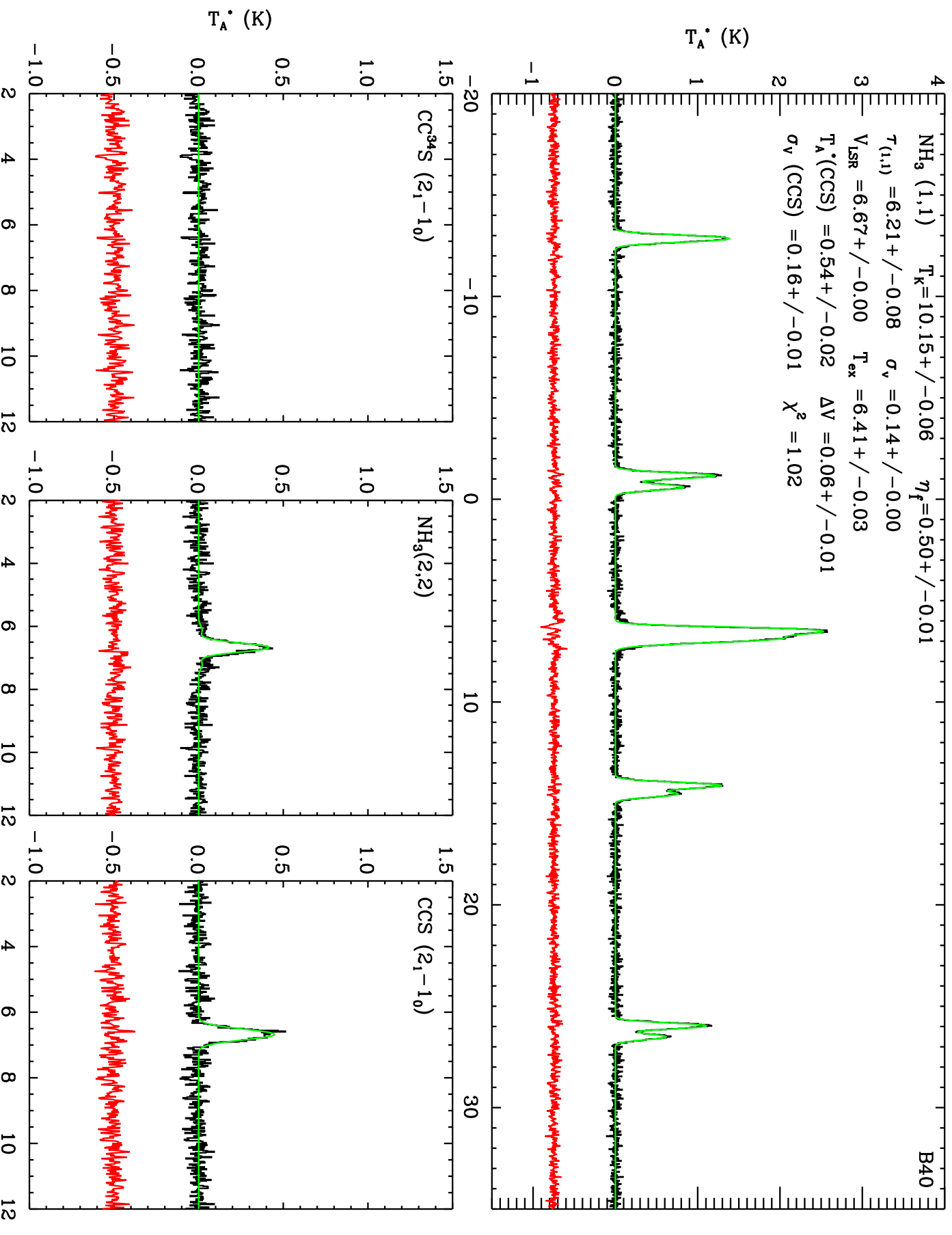


$\text{NH}_3(1,1)$ $T_K = 9.62 \pm 0.14$ $\eta_f = 0.34 \pm 0.01$
 $T_{(1,1)} = 7.74 \pm 0.21$ $\sigma_v = 0.11 \pm 0.00$
 $V_{\text{LSR}} = 6.65 \pm 0.00$ $T_{\text{ex}} = 5.09 \pm 0.04$
 $T_A^*(\text{CCS}) = 0.22 \pm 0.02$ $\Delta V = 0.17 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.22 \pm 0.02$ $\chi^2 = 1.12$

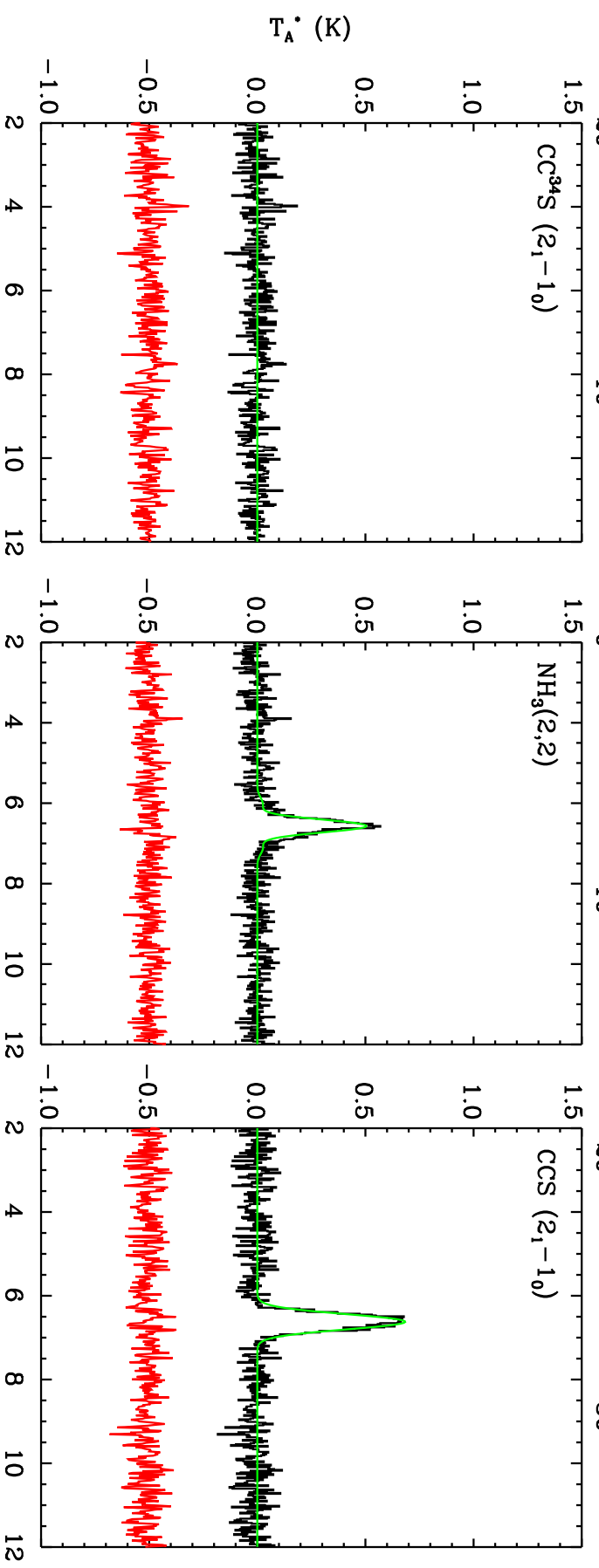
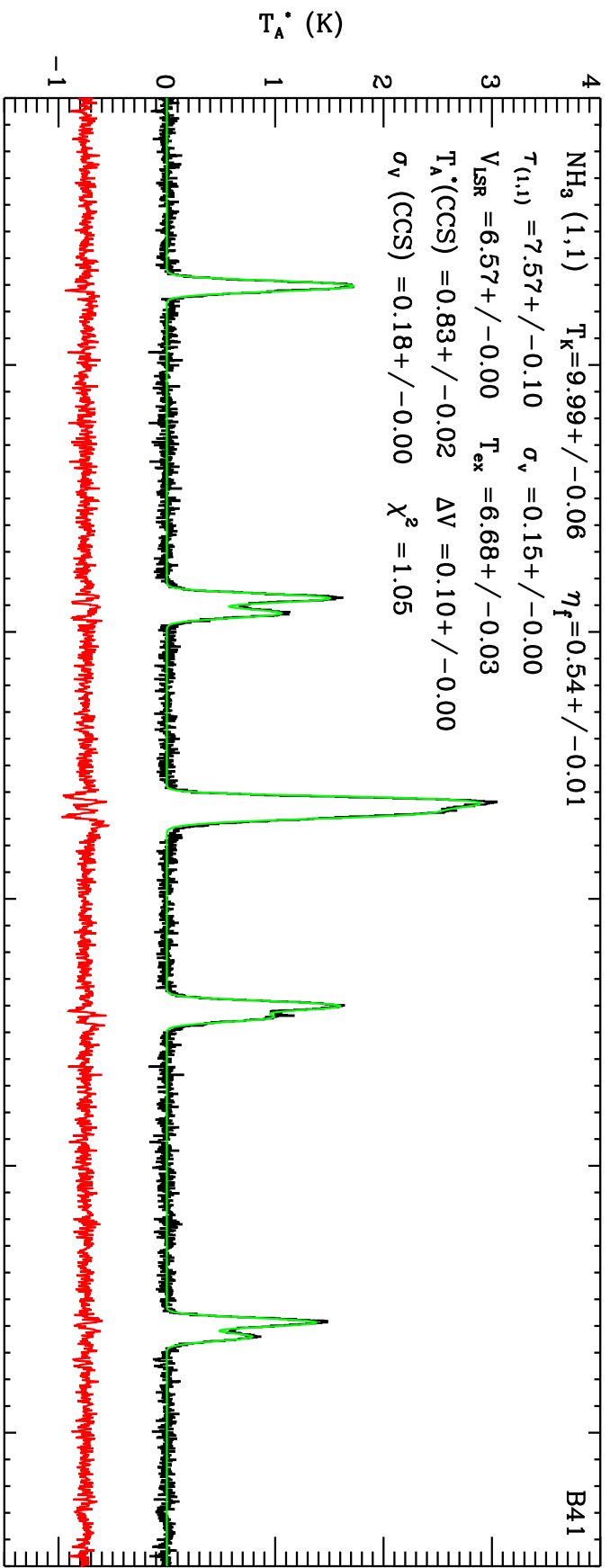


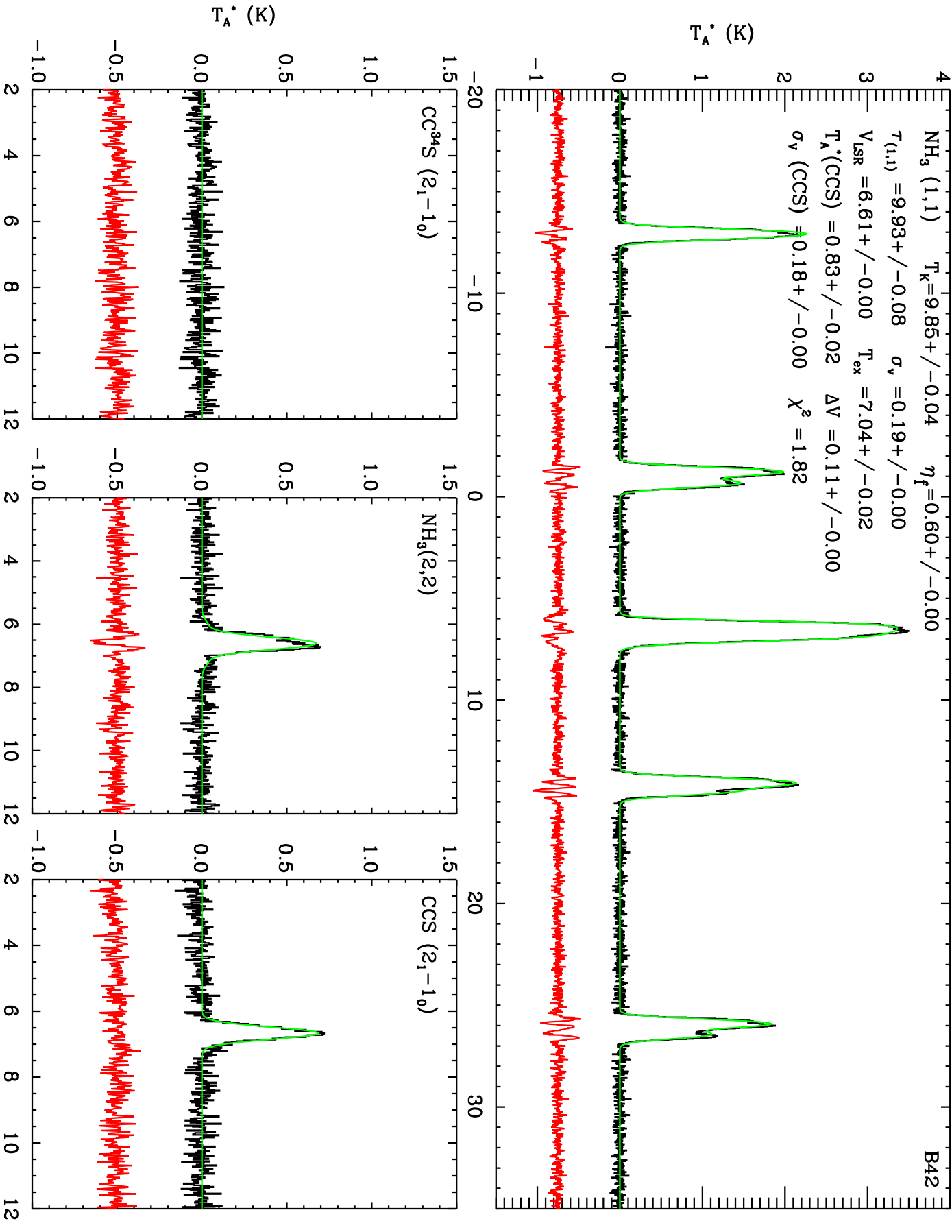
$\text{NH}_3(1,1)$ $T_K = 10.42 \pm 0.61$
 $T_{\text{ex}}^{T(1,1)} = 1.85 \pm 0.05$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 4.61 \pm 0.00$
 $T_A^*(\text{CCS}) = 1.07 \pm 0.02$ $\Delta V = 0.03 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.13 \pm 0.00$ $\chi^2 = 1.00$

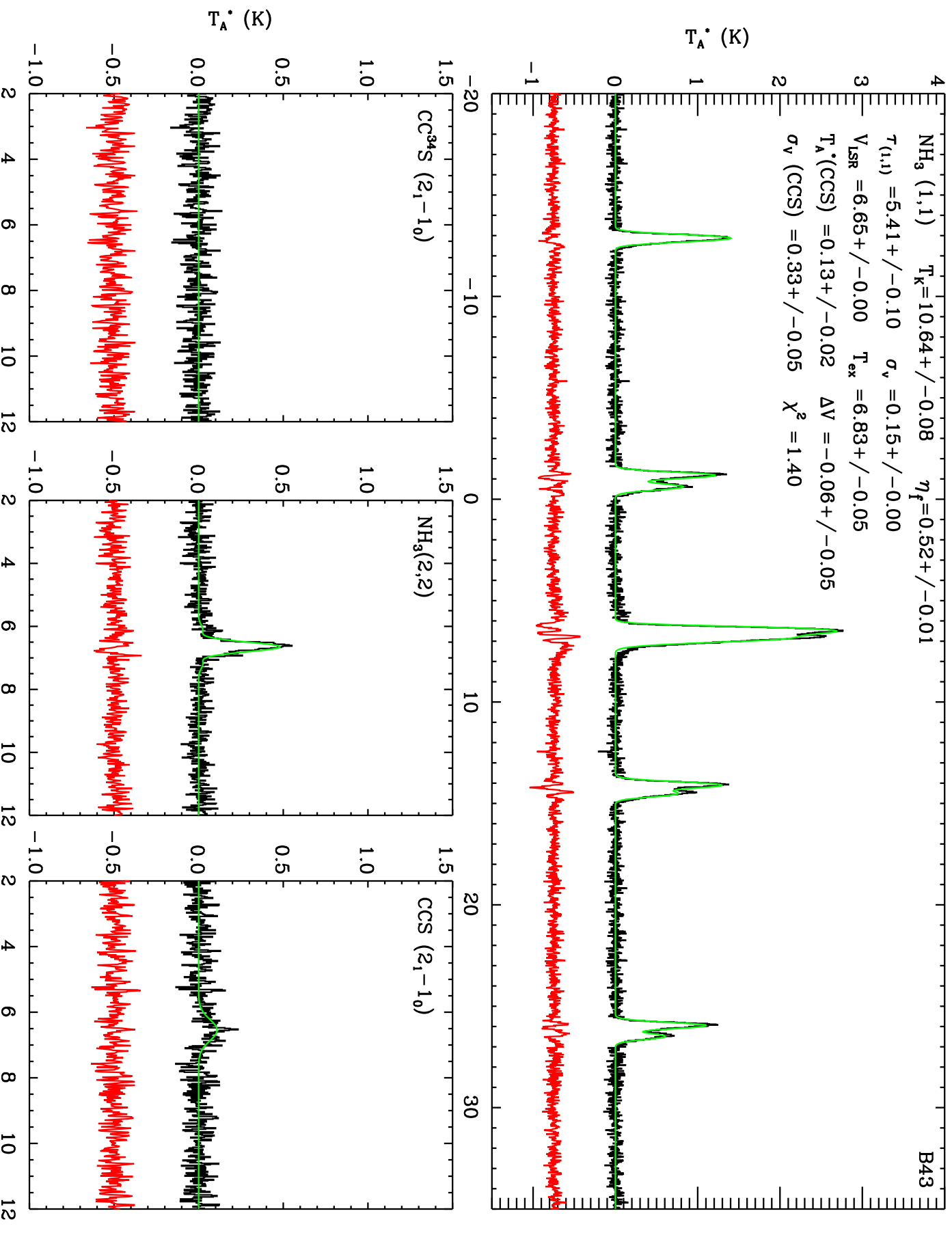




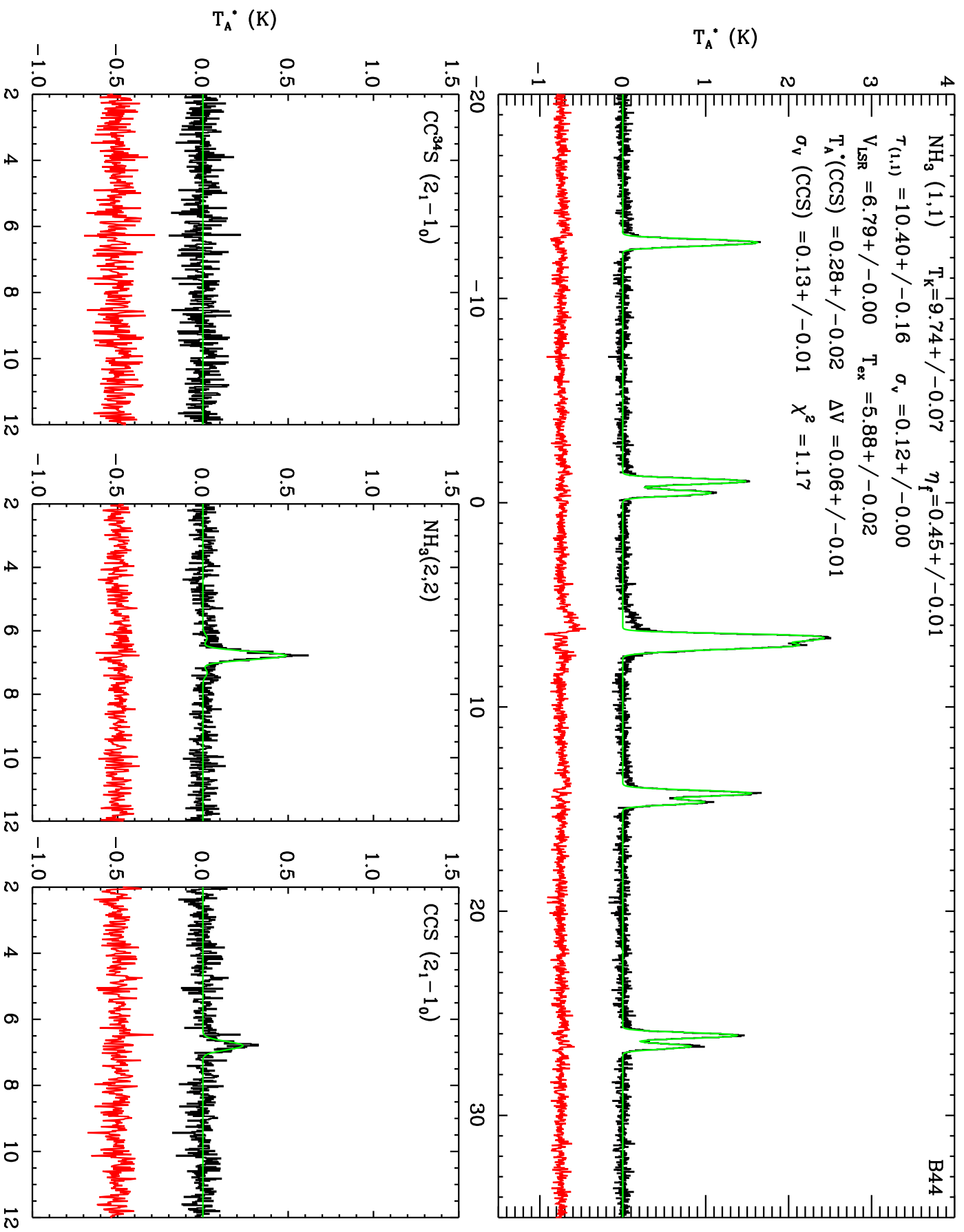
$\text{NH}_3(1,1)$ $T_K = 9.99 \pm 0.06$ $\eta_f = 0.54 \pm 0.01$
 $T_{(1,1)} = 7.57 \pm 0.10$ $\sigma_v = 0.15 \pm 0.00$
 $V_{\text{LSR}} = 6.57 \pm 0.00$ $T_{\text{ex}} = 6.68 \pm 0.03$
 $T_A^*(\text{CCS}) = 0.83 \pm 0.02$ $\Delta V = 0.10 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.18 \pm 0.00$ $\chi^2 = 1.05$

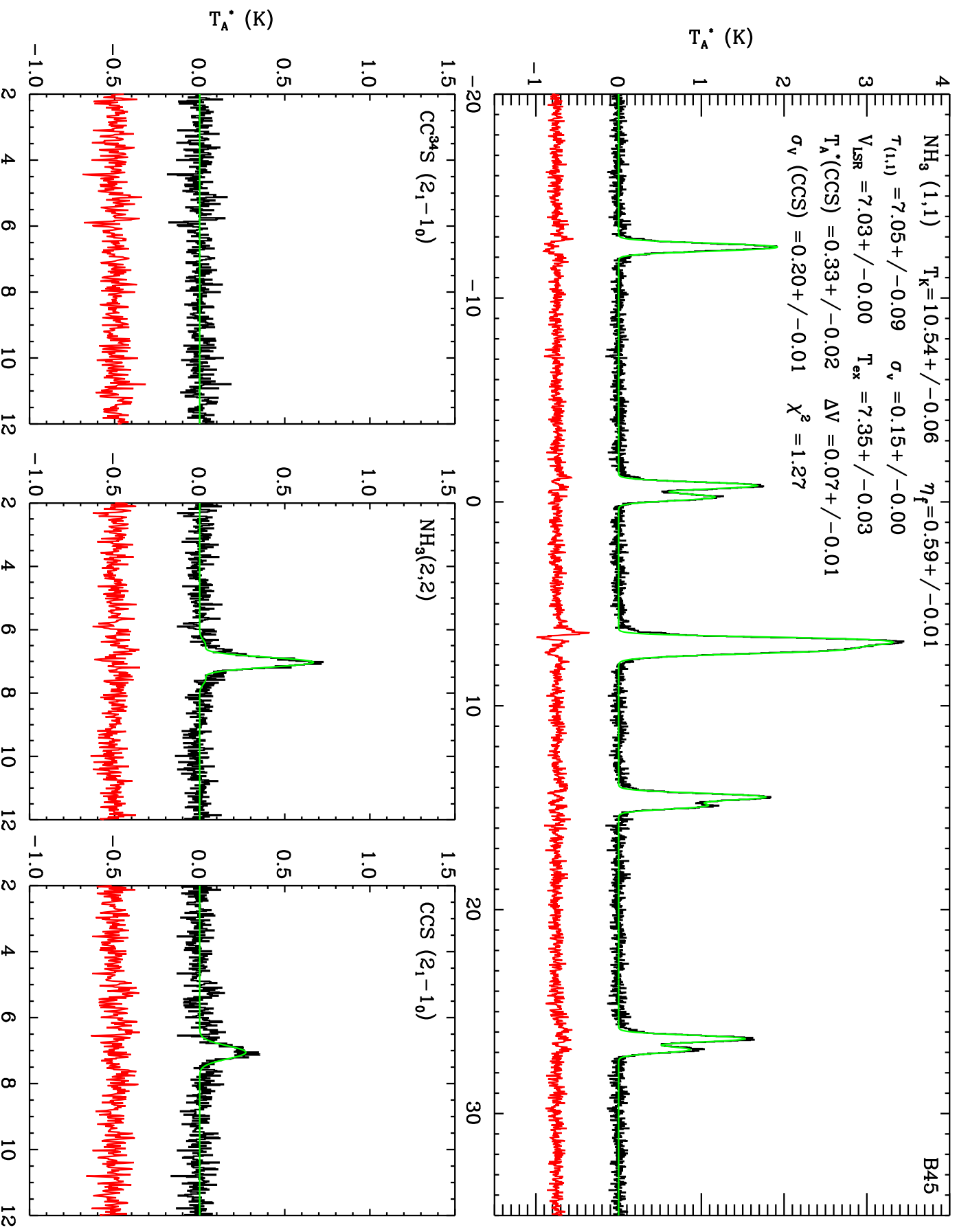


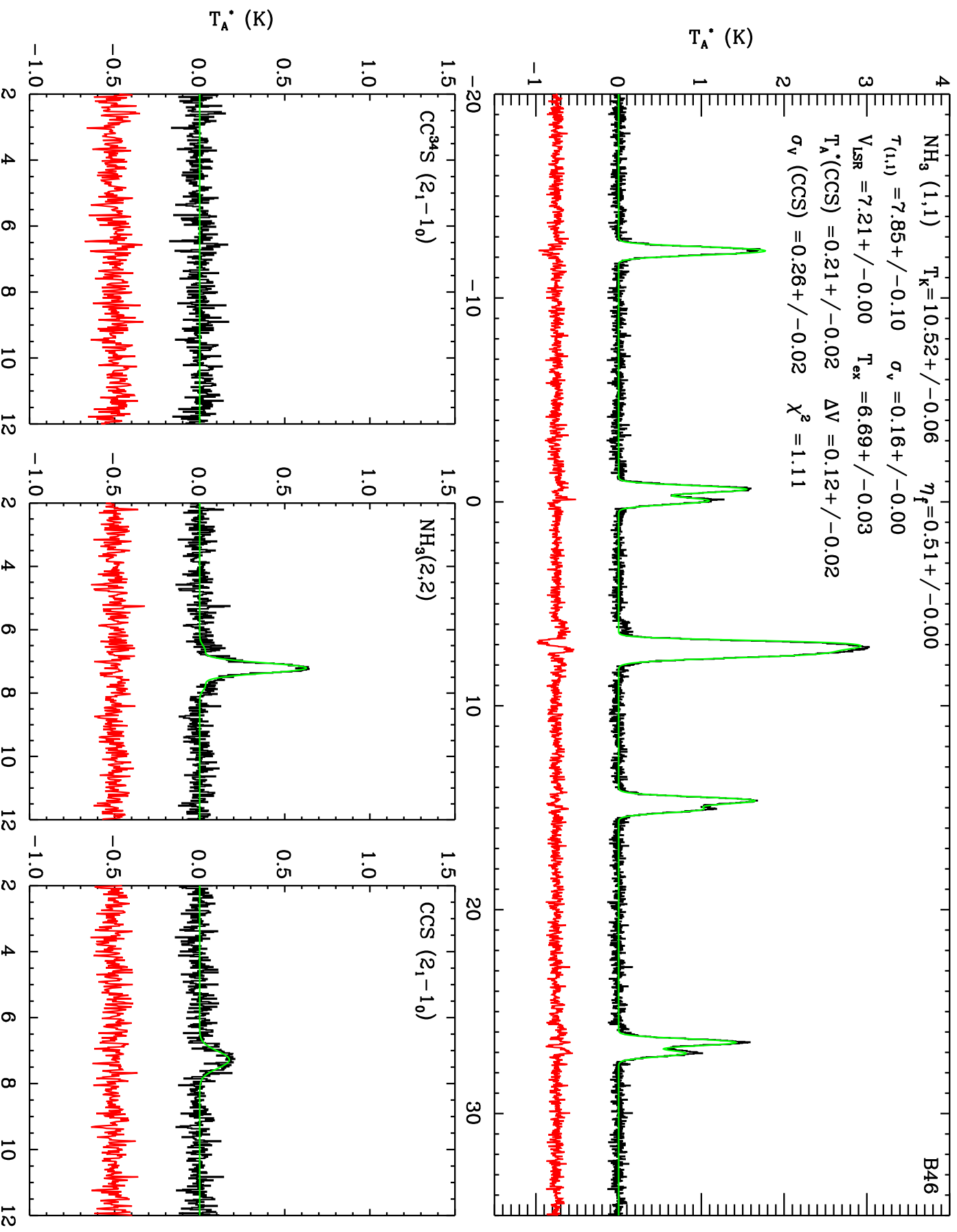


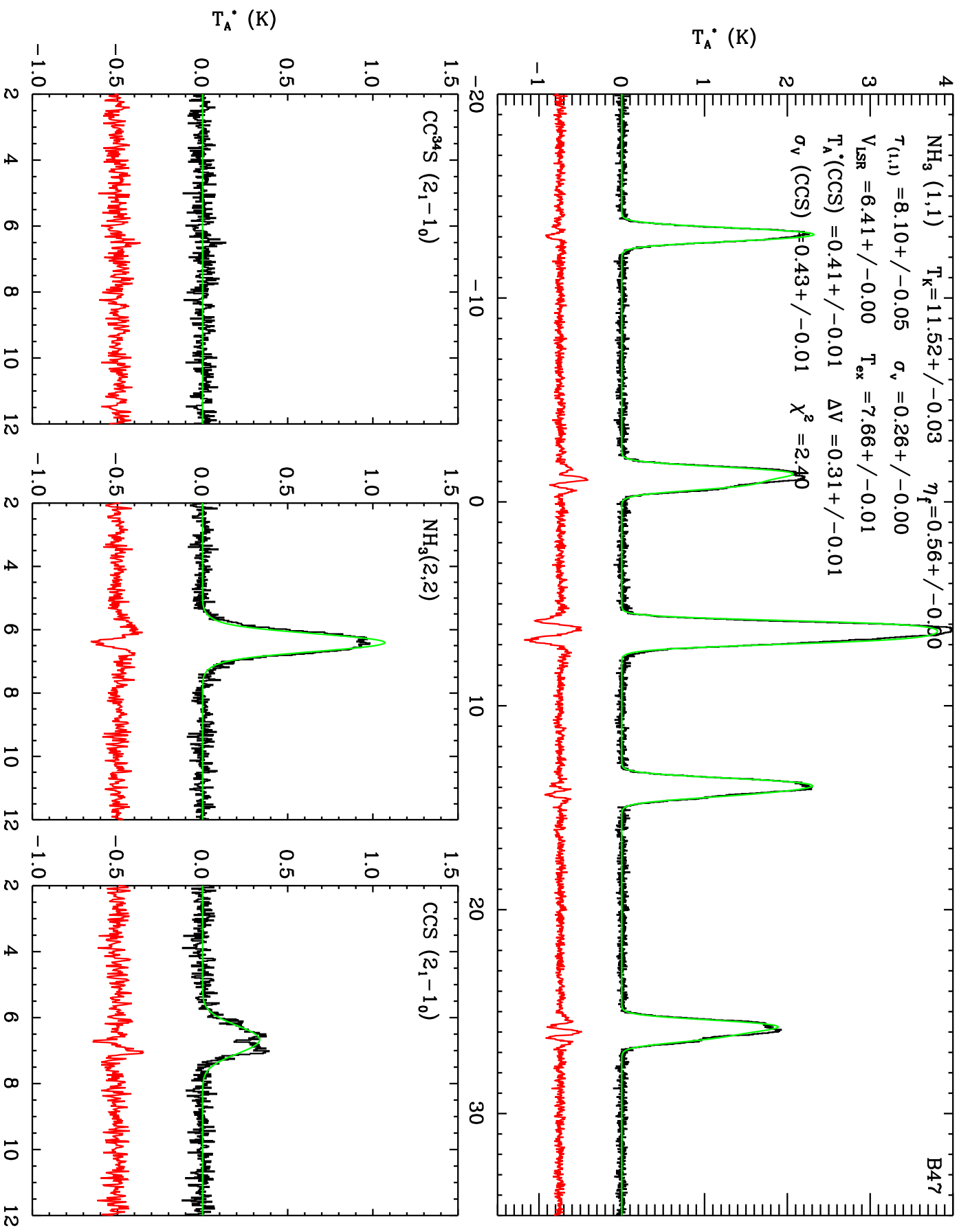


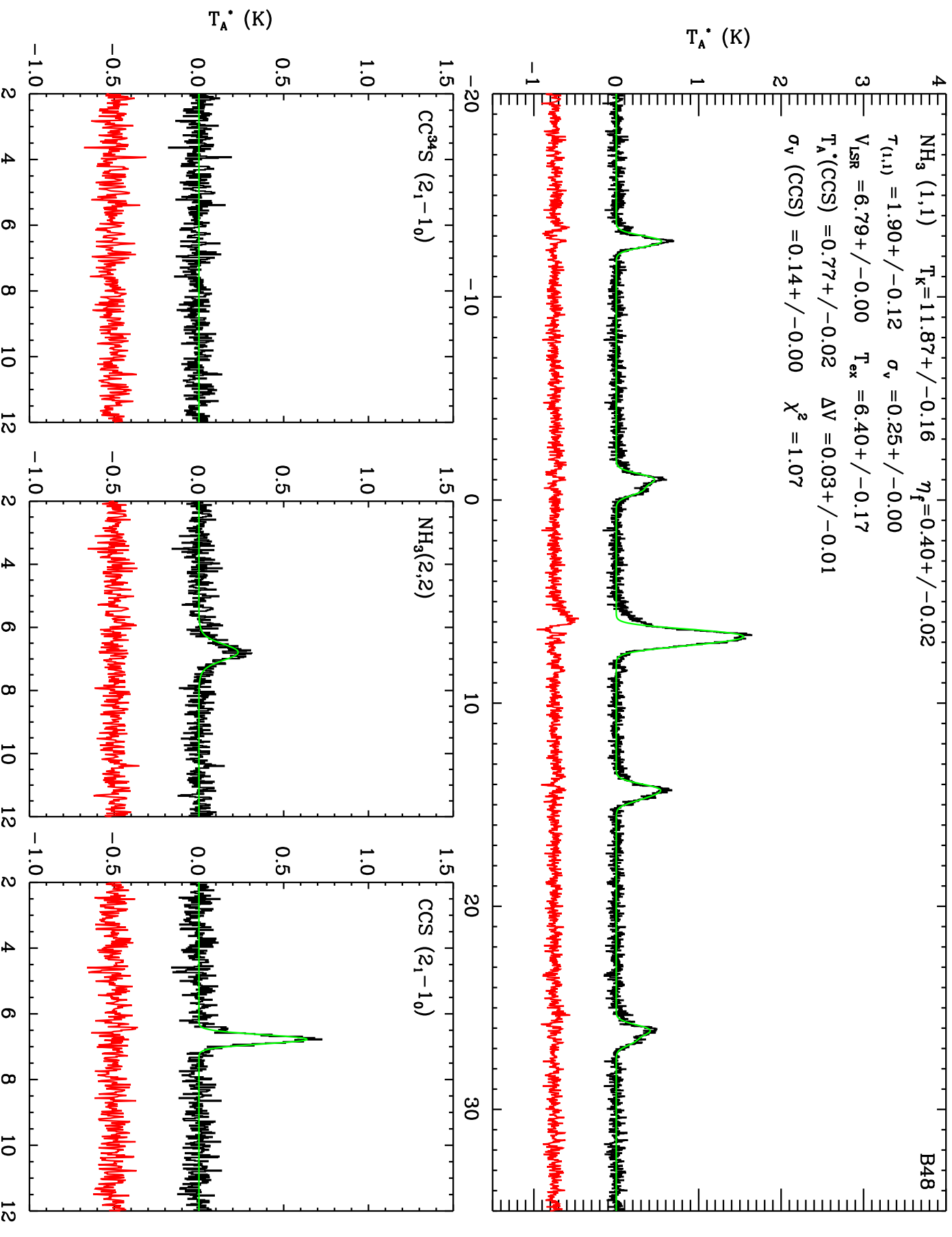
$\text{NH}_3(1,1)$ $T_K = 9.74 \pm 0.07$ $\eta_f = 0.45 \pm 0.01$
 $T_{(1,1)} = 10.40 \pm 0.16$ $\sigma_v = 0.12 \pm 0.00$
 $V_{\text{LSR}} = 6.79 \pm 0.00$ $T_{\text{ex}} = 5.88 \pm 0.02$
 $T_A^*(\text{CCS}) = 0.28 \pm 0.02$ $\Delta V = 0.06 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.13 \pm 0.01$ $\chi^2 = 1.17$



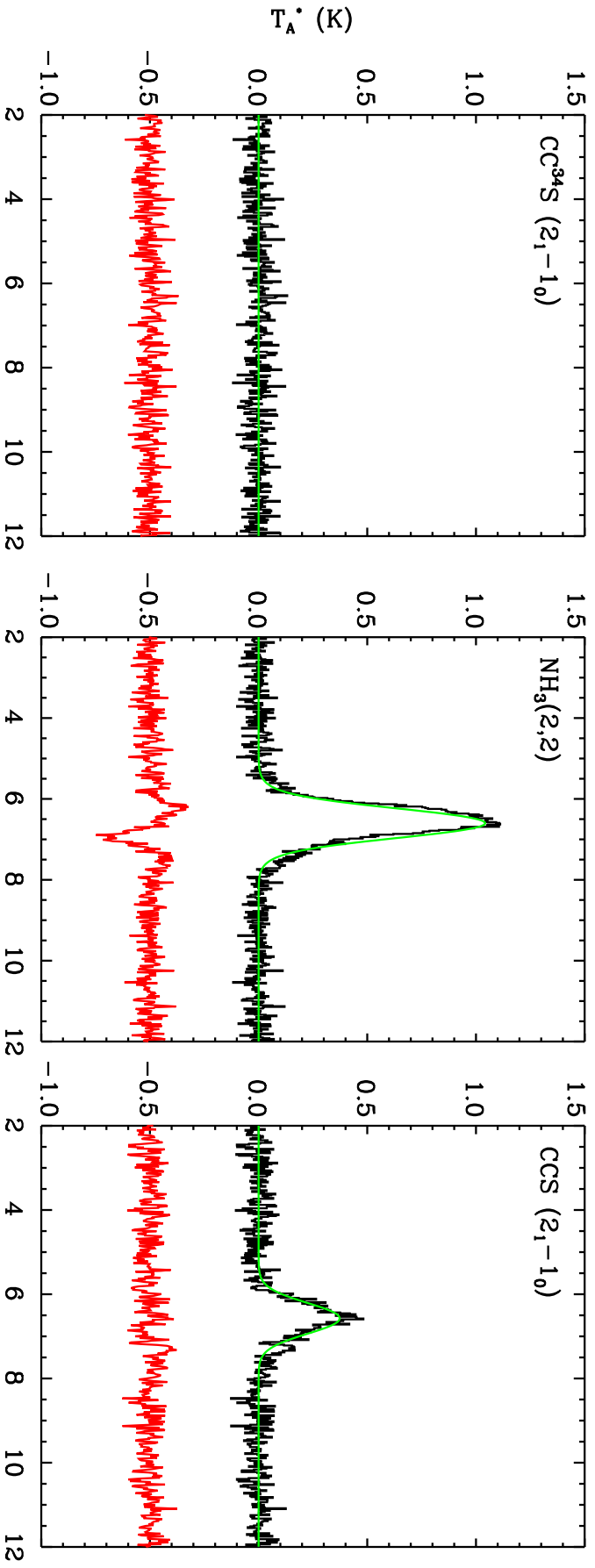
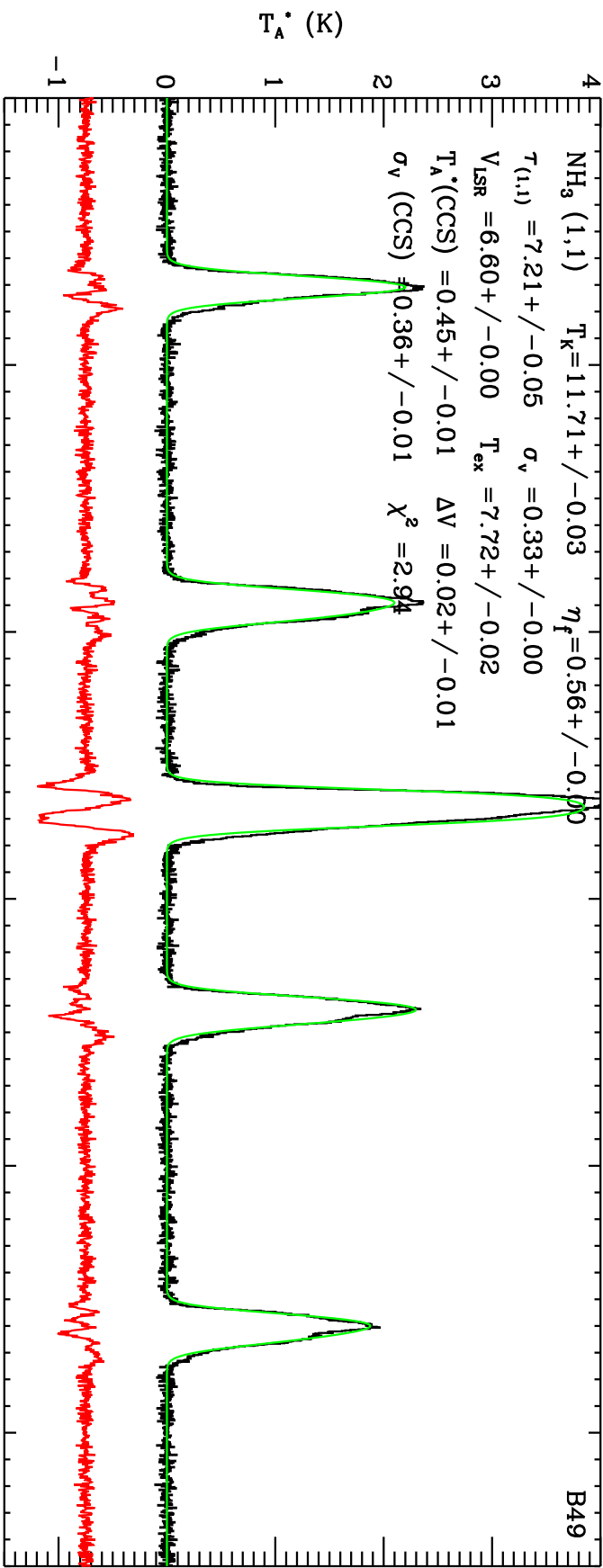


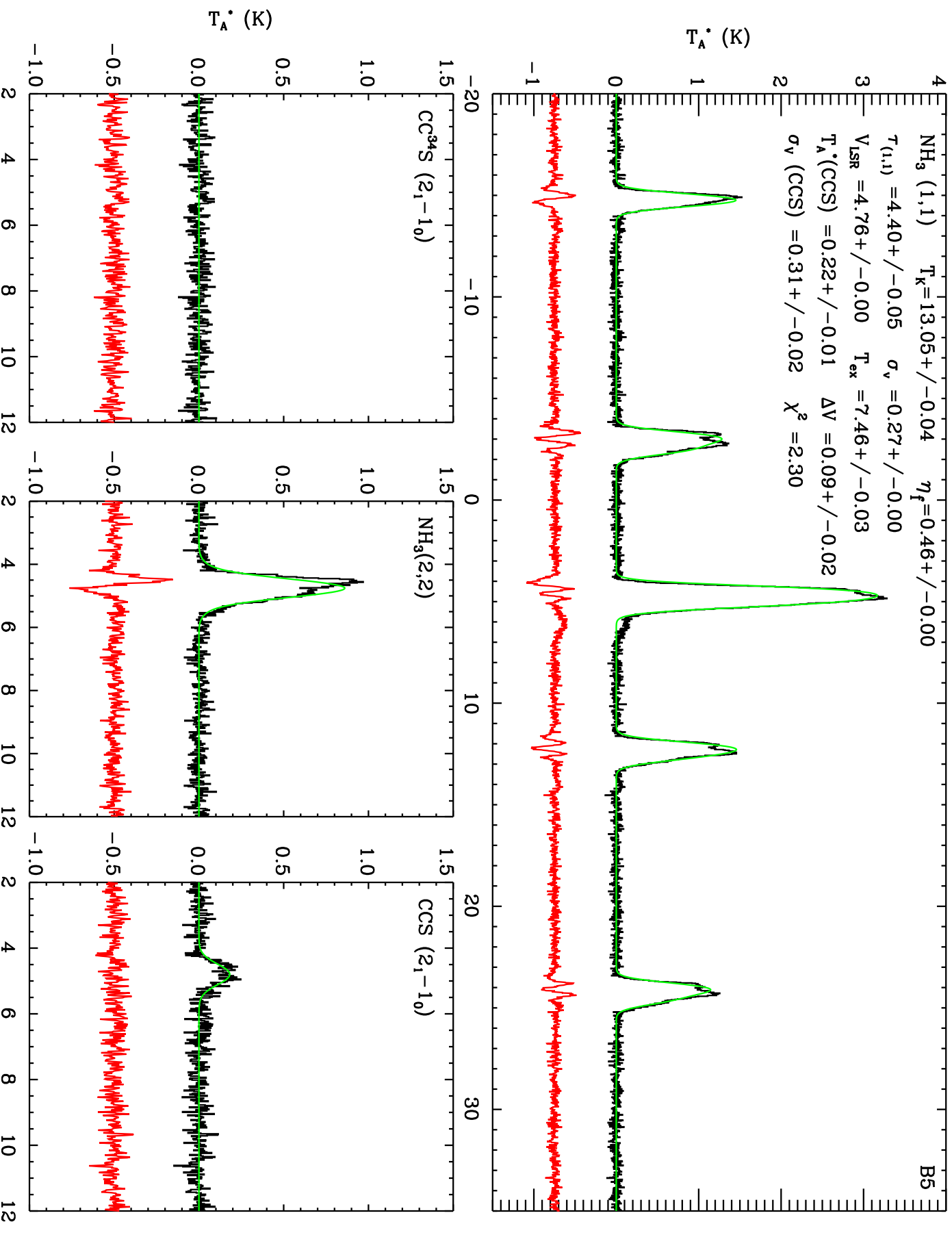




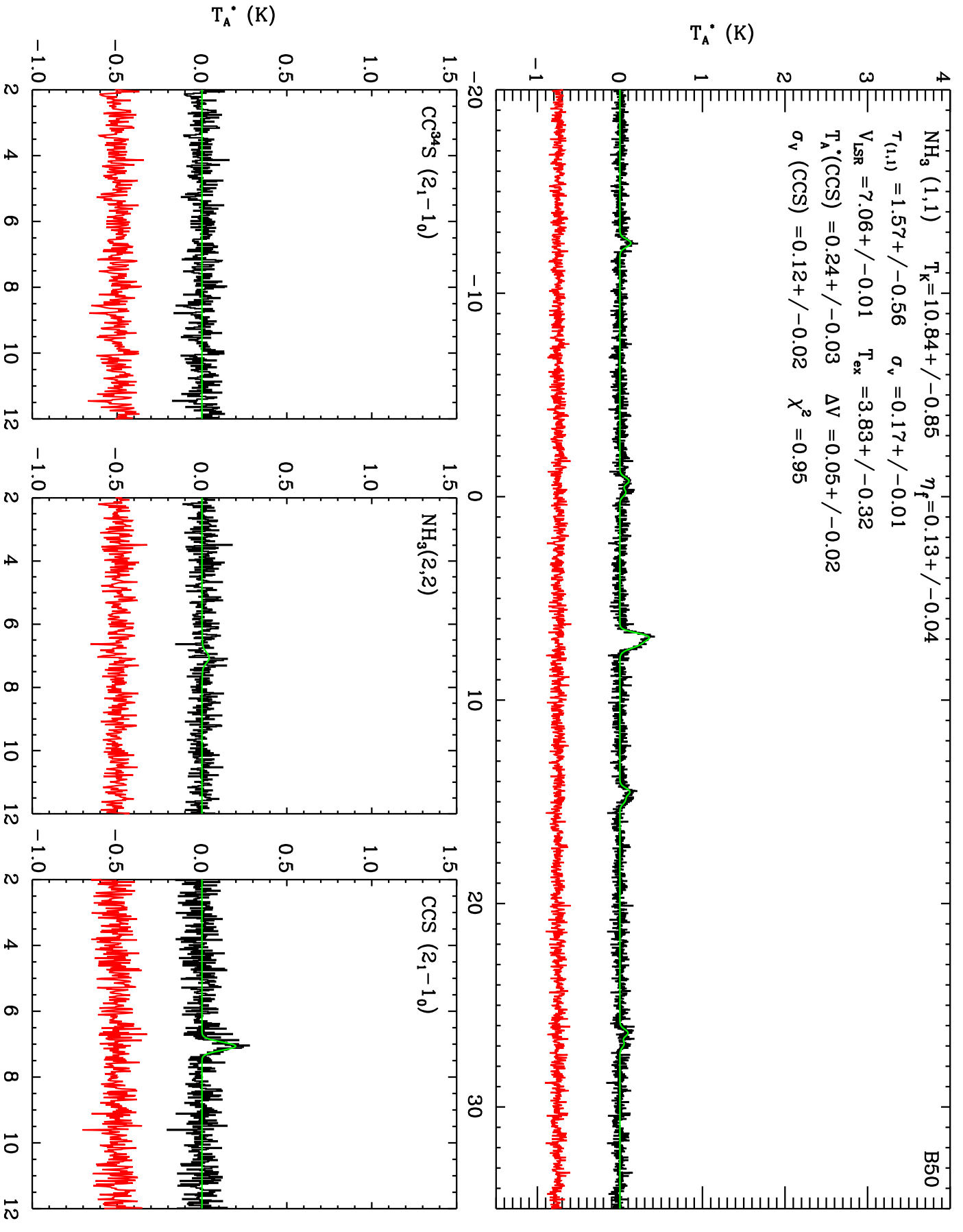


$\text{NH}_3(1,1)$ $T_K = 11.71 \pm 0.03$ $\eta_f = 0.56 \pm 0.00$
 $T_{(1,1)} = 7.21 \pm 0.05$ $\sigma_v = 0.33 \pm 0.00$
 $V_{\text{LSR}} = 6.60 \pm 0.00$ $T_{\text{ex}} = 7.72 \pm 0.02$
 $T_A^*(\text{CCS}) = 0.45 \pm 0.01$ $\Delta V = 0.02 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.36 \pm 0.01$ $\chi^2 = 2.94$



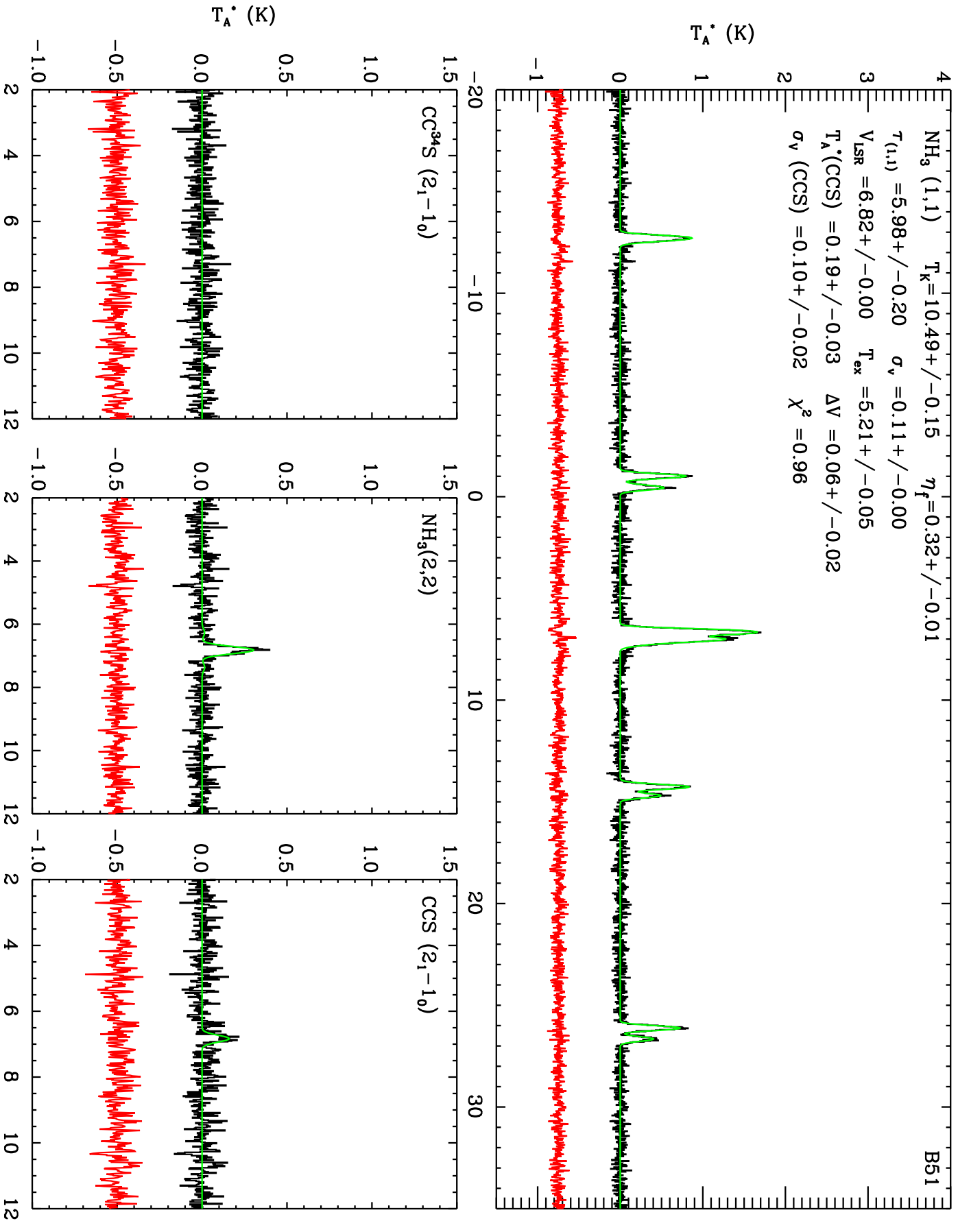


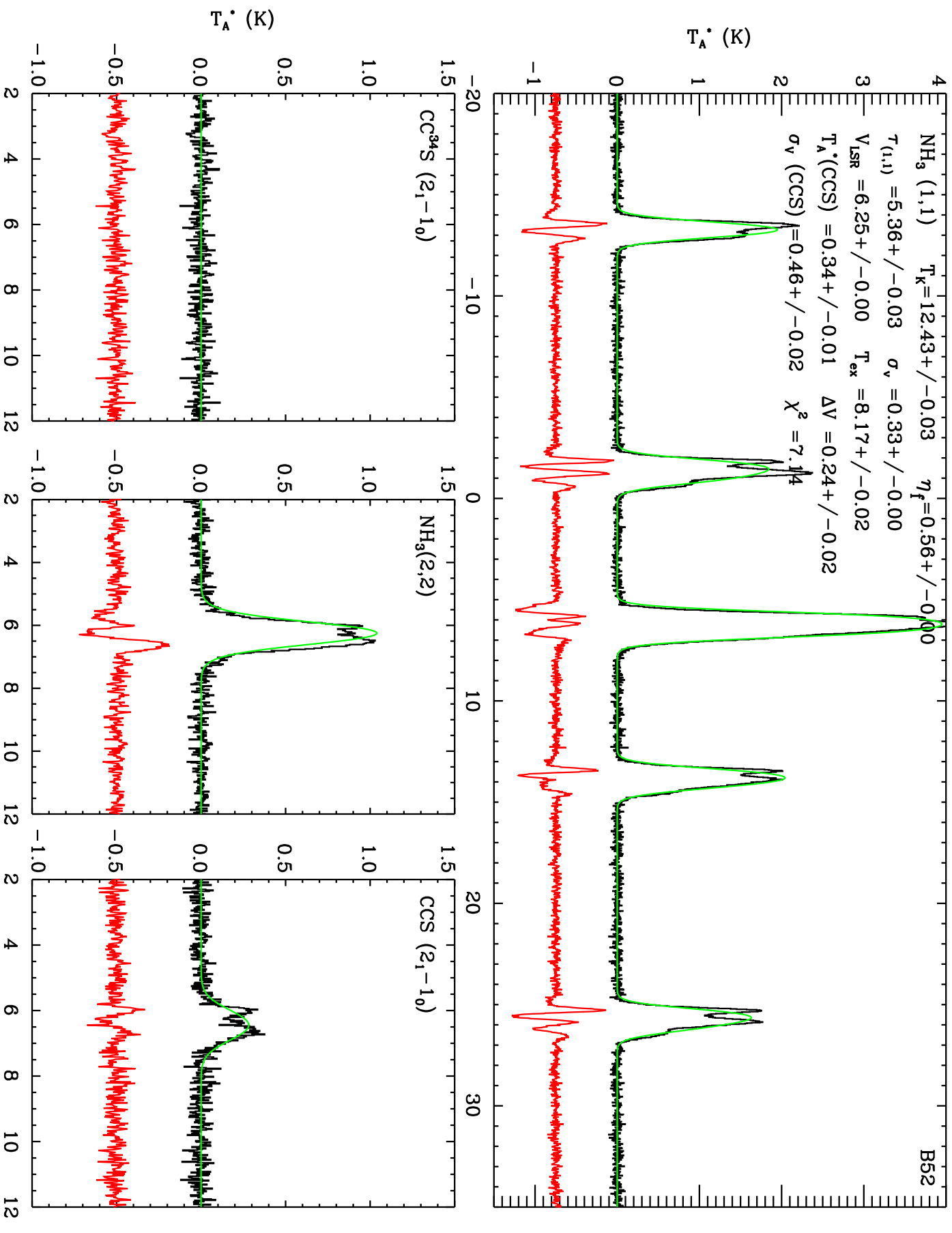
$\text{NH}_3(1,1)$ $T_K = 10.84 \pm 0.85$ $\eta_f = 0.13 \pm 0.04$
 $T_{(1,1)} = 1.57 \pm 0.56$ $\sigma_v = 0.17 \pm 0.01$
 $V_{\text{LSR}} = 7.06 \pm 0.01$ $T_{\text{ex}} = 3.83 \pm 0.32$
 $T_A^*(\text{CCS}) = 0.24 \pm 0.03$ $\Delta V = 0.05 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.12 \pm 0.02$ $\chi^2 = 0.95$



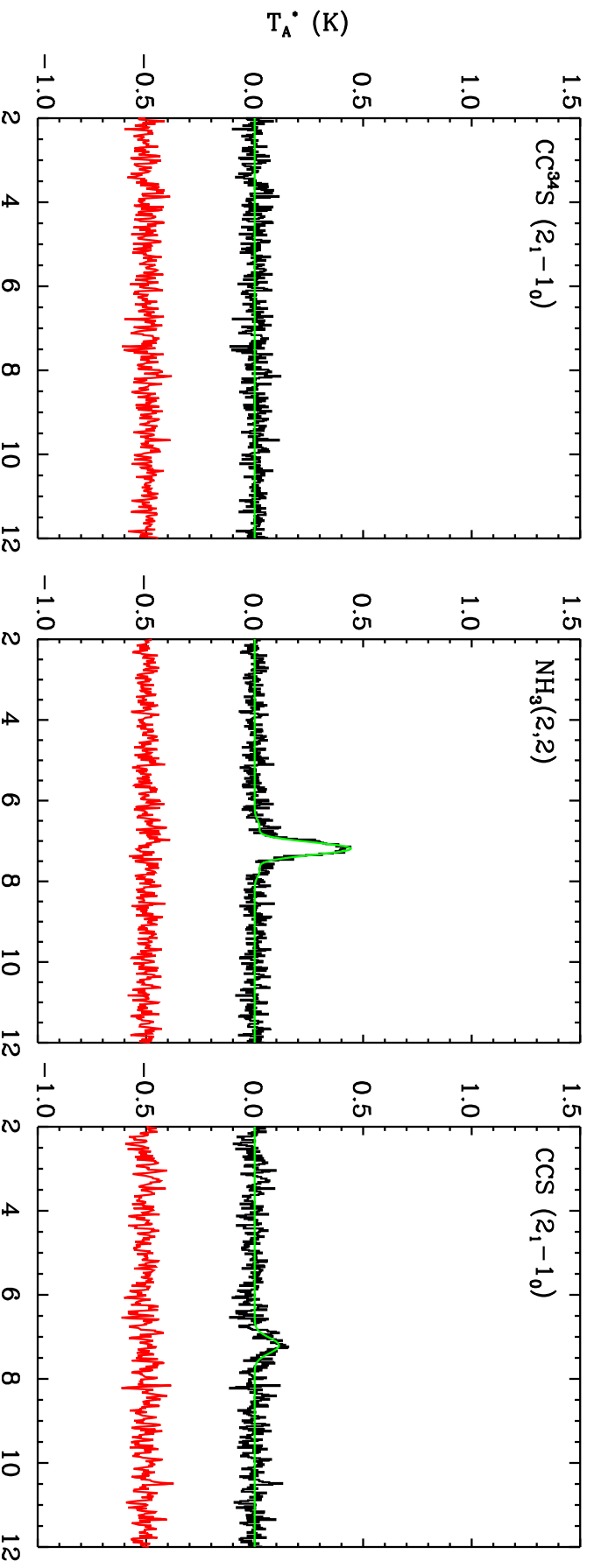
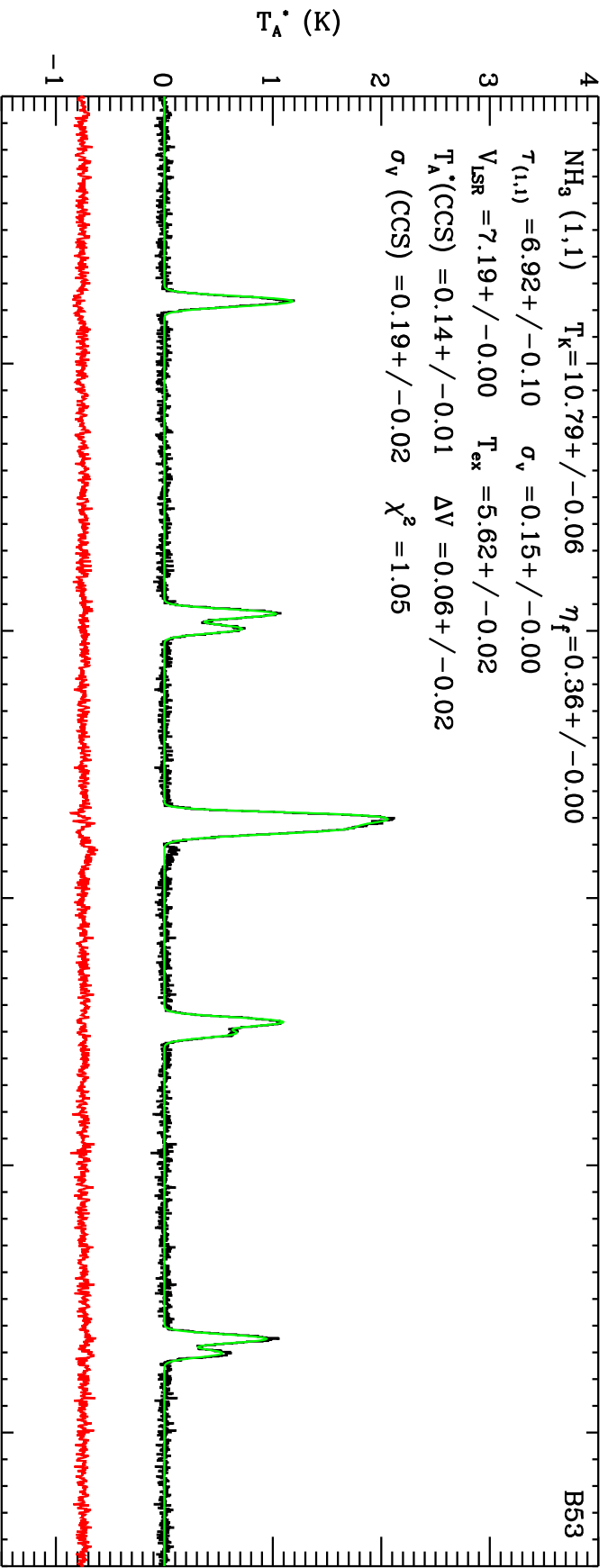
B51

$\text{NH}_3(1,1)$ $T_K = 10.49 \pm 0.15$ $\eta_f = 0.32 \pm 0.01$
 $T_{(1,1)} = 5.98 \pm 0.20$ $\sigma_v = 0.11 \pm 0.00$
 $V_{\text{LSR}} = 6.82 \pm 0.00$ $T_{\text{ex}} = 5.21 \pm 0.05$
 $T_A^*(\text{CCS}) = 0.19 \pm 0.03$ $\Delta V = 0.06 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.10 \pm 0.02$ $\chi^2 = 0.96$

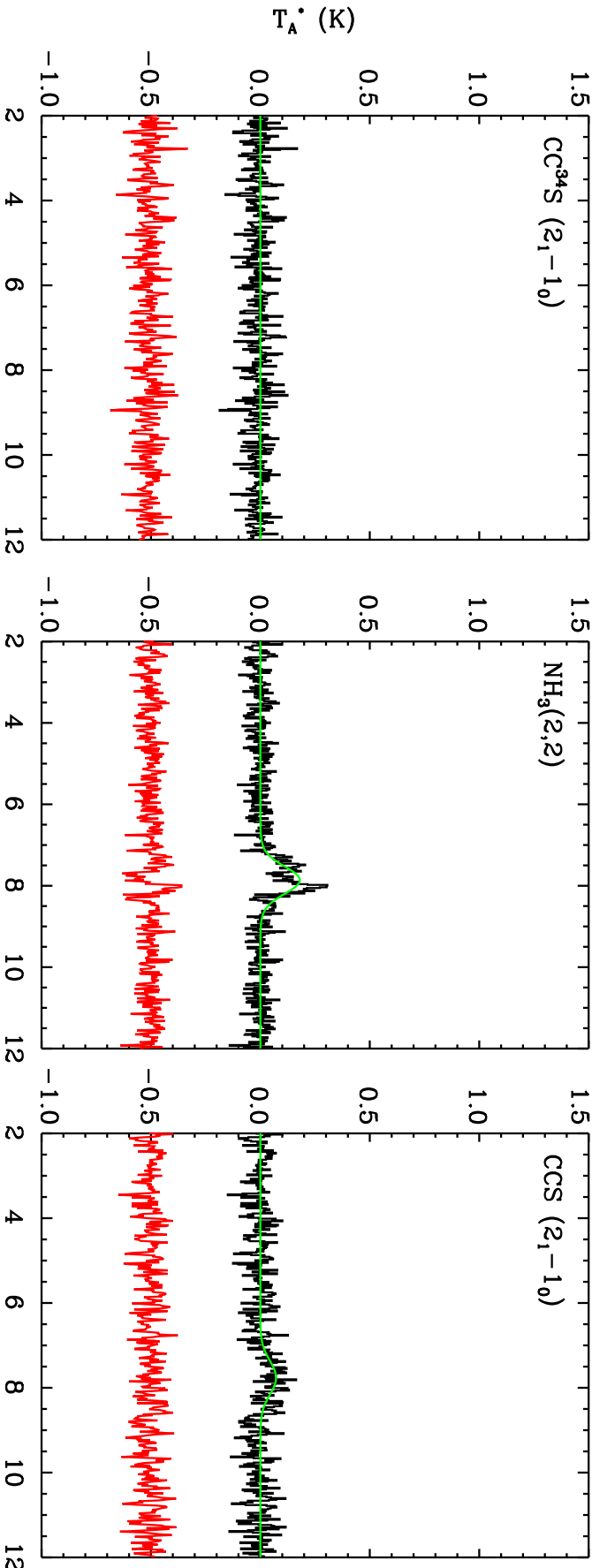
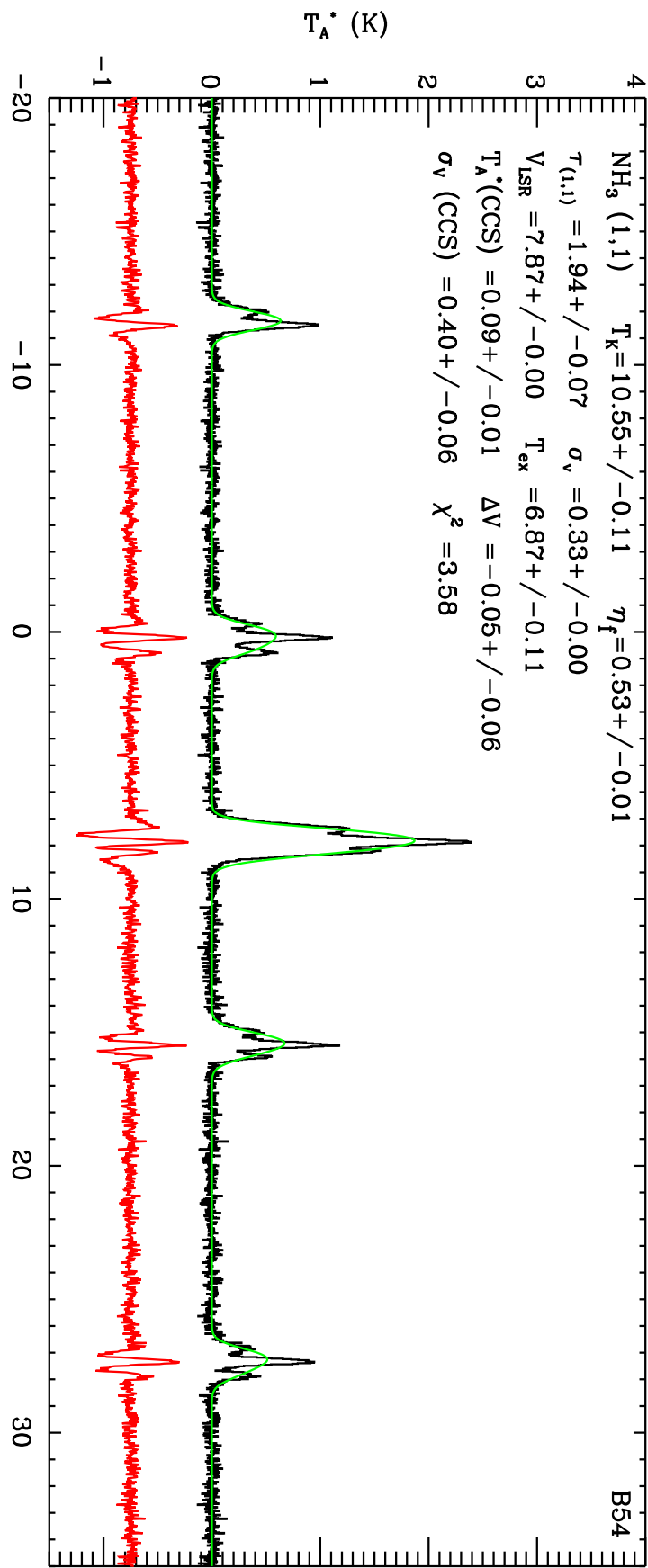




NH₃ (1,1) $T_K=10.79+/-0.06$ $\eta_f=0.36+/-0.00$
 $T_{(1,1)}=6.92+/-0.10$ $\sigma_v=0.15+/-0.00$
 $V_{LSR}=7.19+/-0.00$ $T_{ex}=5.62+/-0.02$
 $T_A^*(CCS)=0.14+/-0.01$ $\Delta V=0.06+/-0.02$
 $\sigma_v(CCS)=0.19+/-0.02$ $\chi^2=1.05$

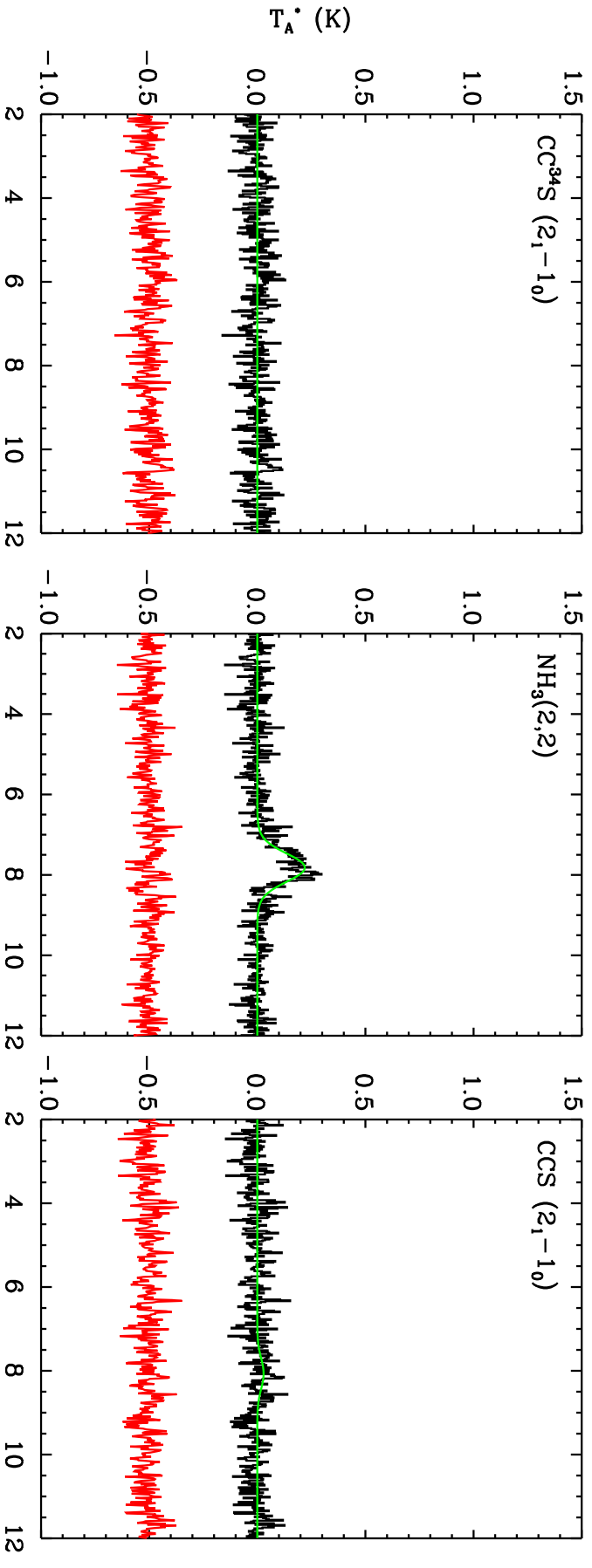
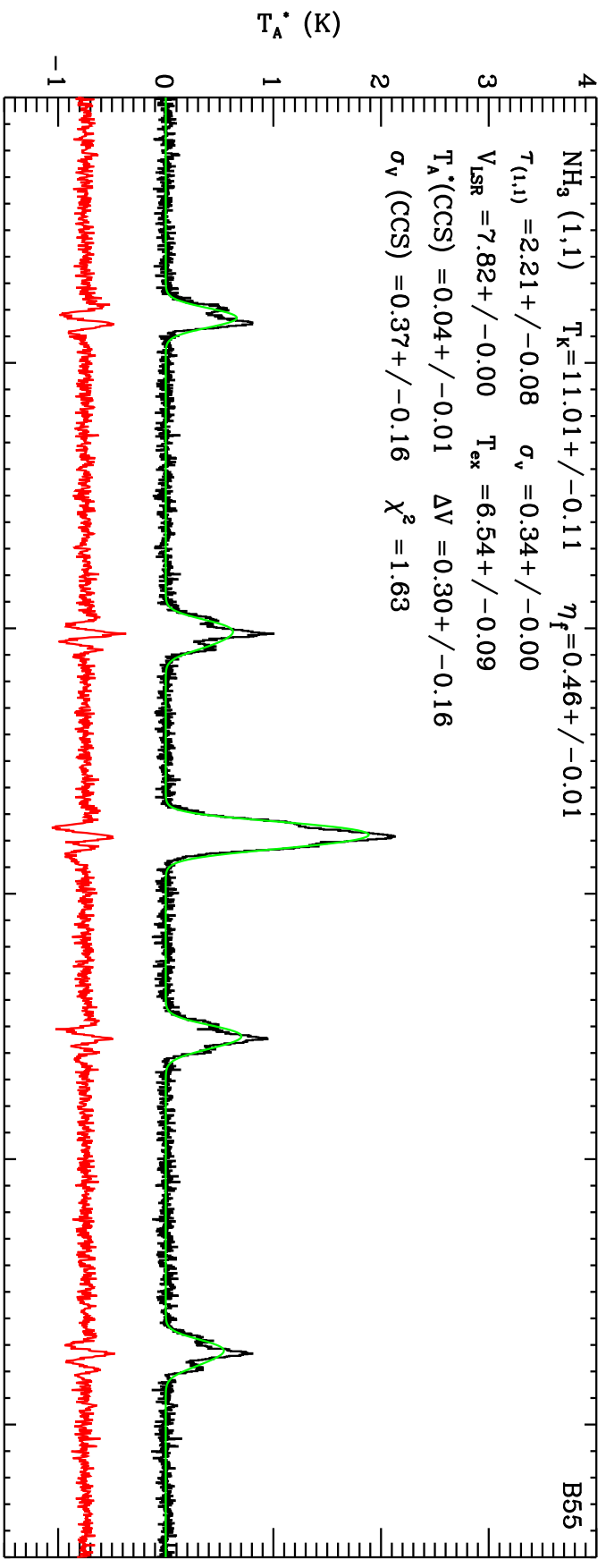


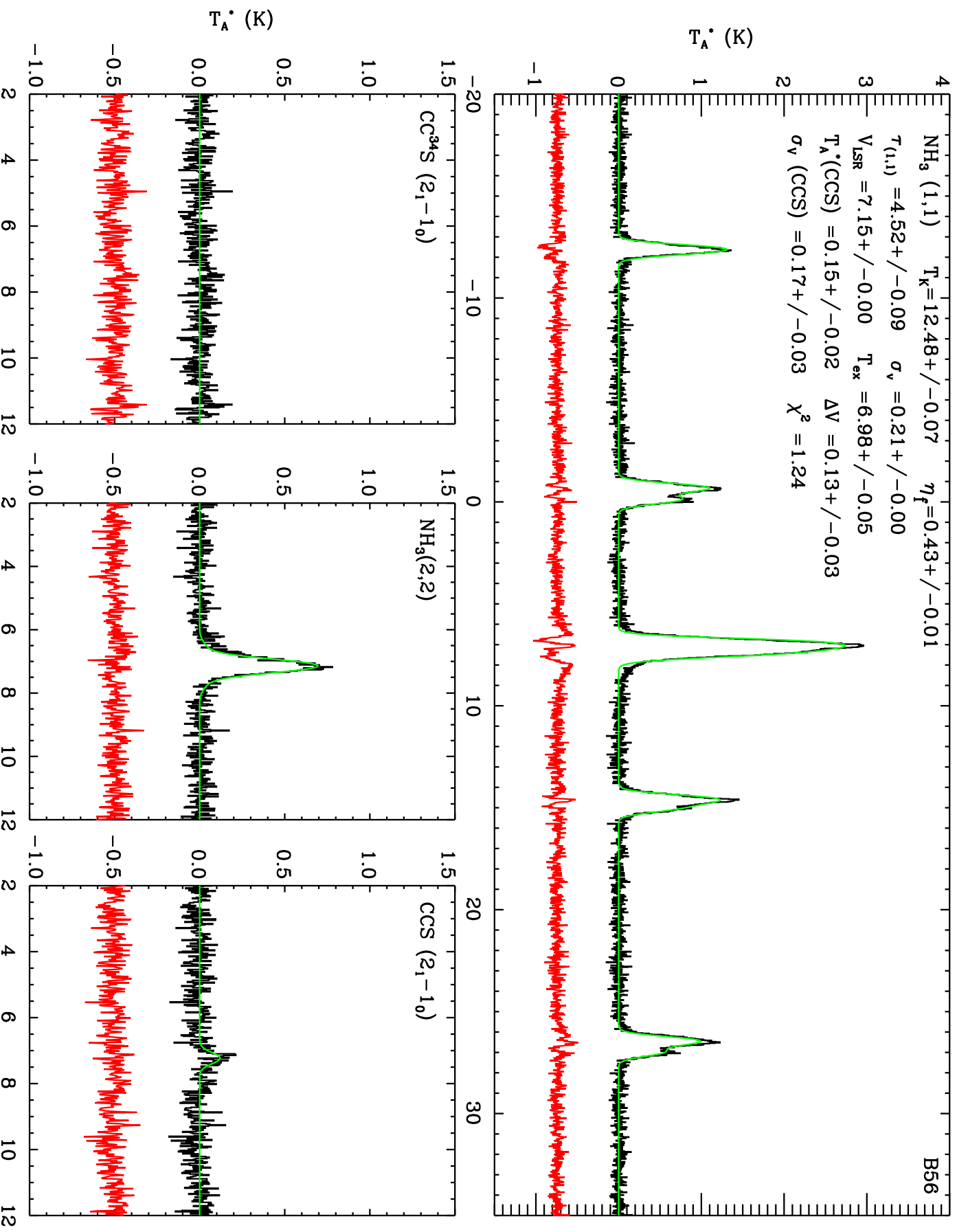
$\text{NH}_3(1,1)$ $T_K = 10.55 \pm 0.11$ $\eta_f = 0.53 \pm 0.01$
 $T_{(1,1)} = 1.94 \pm 0.07$ $\sigma_v = 0.33 \pm 0.00$
 $V_{\text{LSR}} = 7.87 \pm 0.00$ $T_{\text{ex}} = 6.87 \pm 0.11$
 $T_A^*(\text{CCS}) = 0.09 \pm 0.01$ $\Delta V = -0.05 \pm 0.06$
 $\sigma_v(\text{CCS}) = 0.40 \pm 0.06$ $\chi^2 = 3.58$



B55

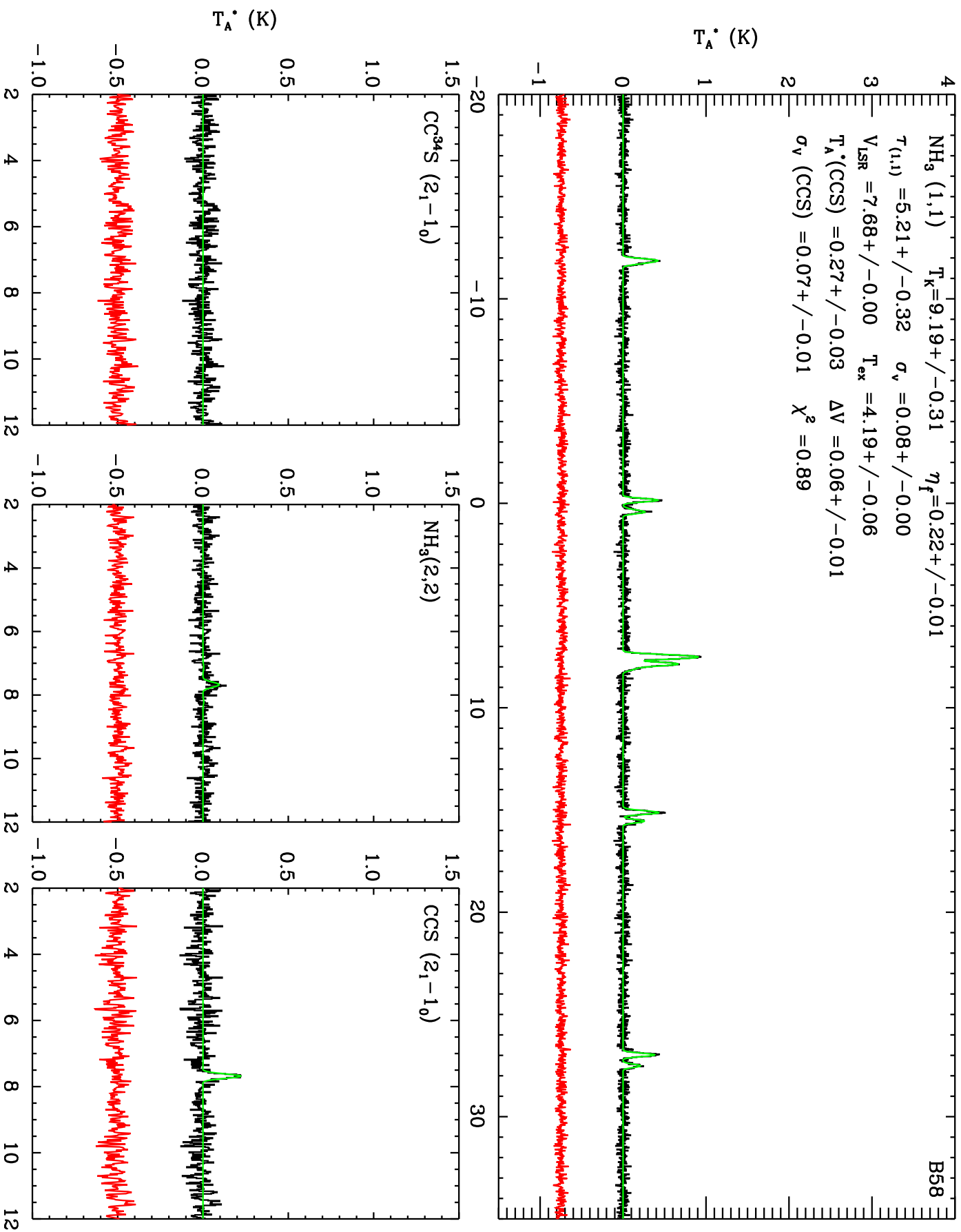
$\text{NH}_3(1,1)$ $T_K = 11.01 \pm 0.11$ $\eta_f = 0.46 \pm 0.01$
 $T_{(1,1)} = 2.21 \pm 0.08$ $\sigma_v = 0.34 \pm 0.00$
 $V_{\text{LSR}} = 7.82 \pm 0.00$ $T_{\text{ex}} = 6.54 \pm 0.09$
 $T_A^*(\text{CCS}) = 0.04 \pm 0.01$ $\Delta V = 0.30 \pm 0.16$
 $\sigma_v(\text{CCS}) = 0.37 \pm 0.16$ $\chi^2 = 1.63$





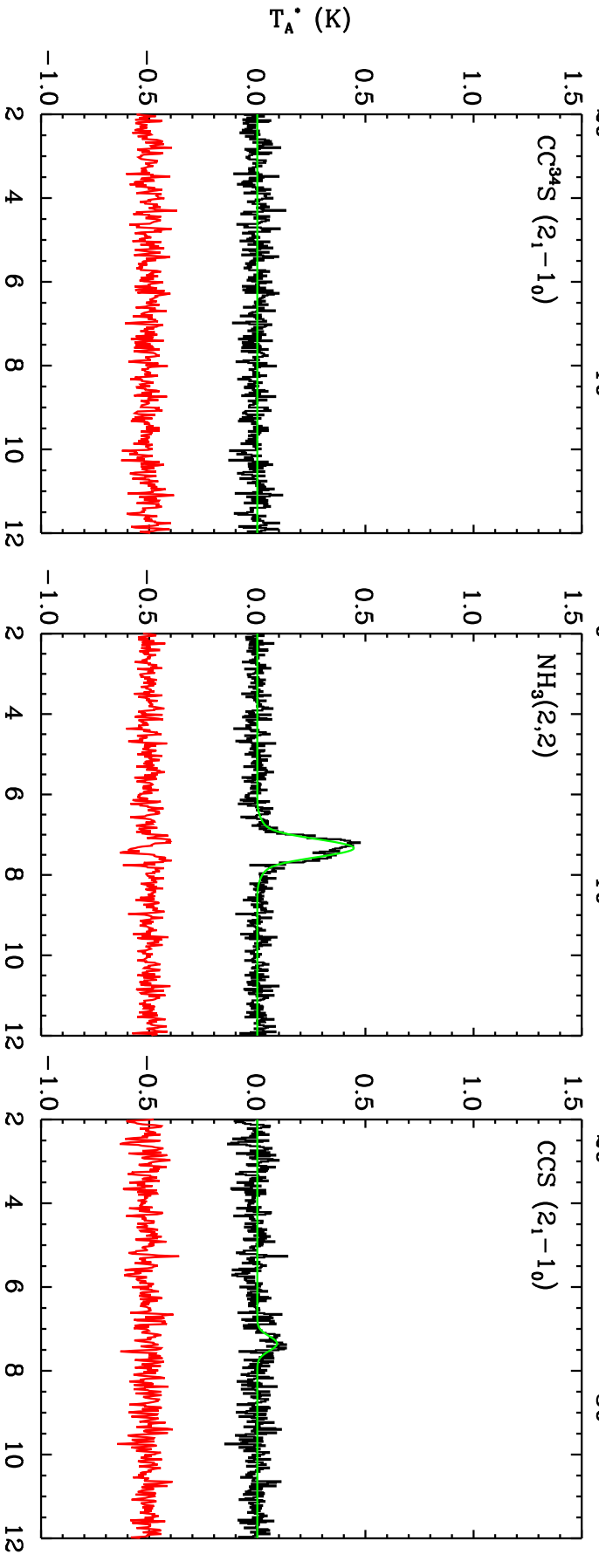
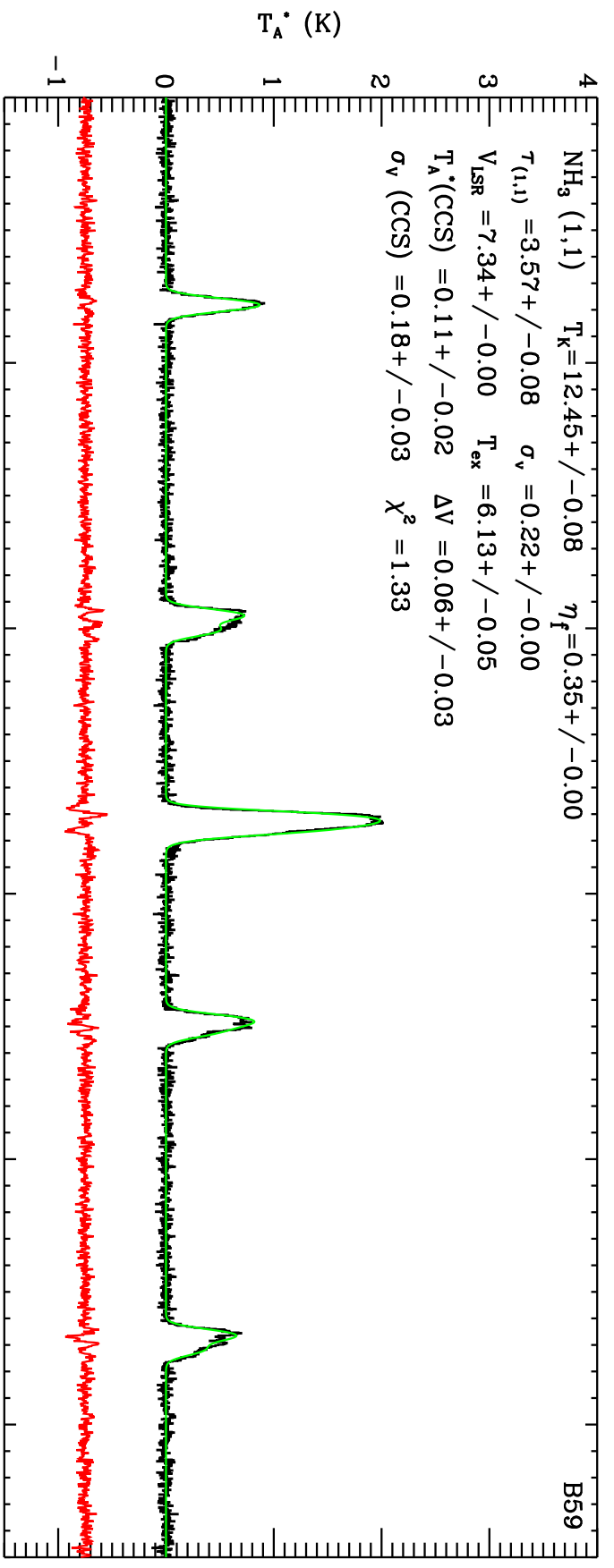
B58

$\text{NH}_3(1,1)$ $T_K = 9.19 \pm 0.31$ $\eta_f = 0.22 \pm 0.01$
 $T_{(1,1)} = 5.21 \pm 0.32$ $\sigma_v = 0.08 \pm 0.00$
 $V_{\text{LSR}} = 7.68 \pm 0.00$ $T_{\text{ex}} = 4.19 \pm 0.06$
 $T_A^*(\text{CCS}) = 0.27 \pm 0.03$ $\Delta V = 0.06 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.07 \pm 0.01$ $\chi^2 = 0.89$

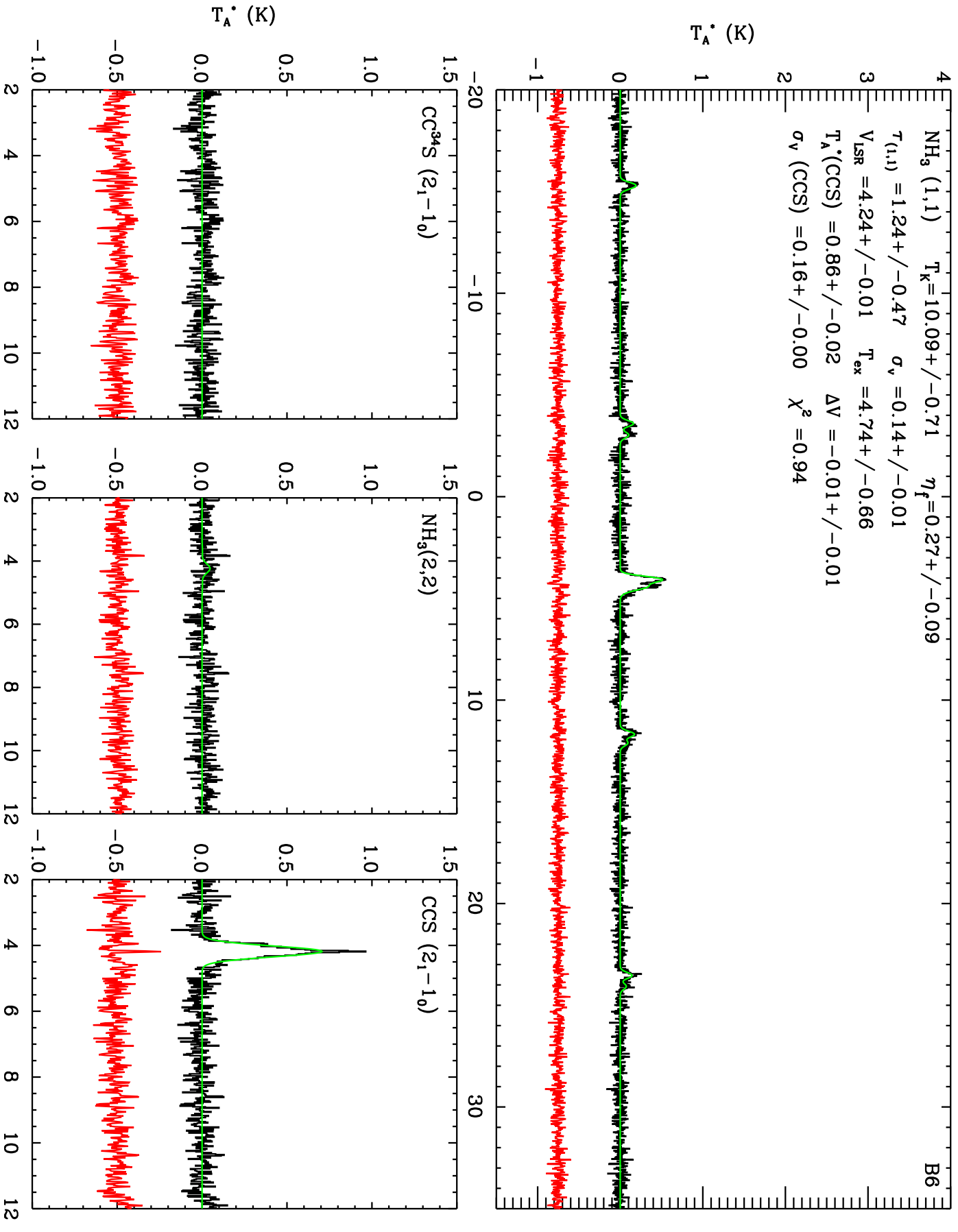


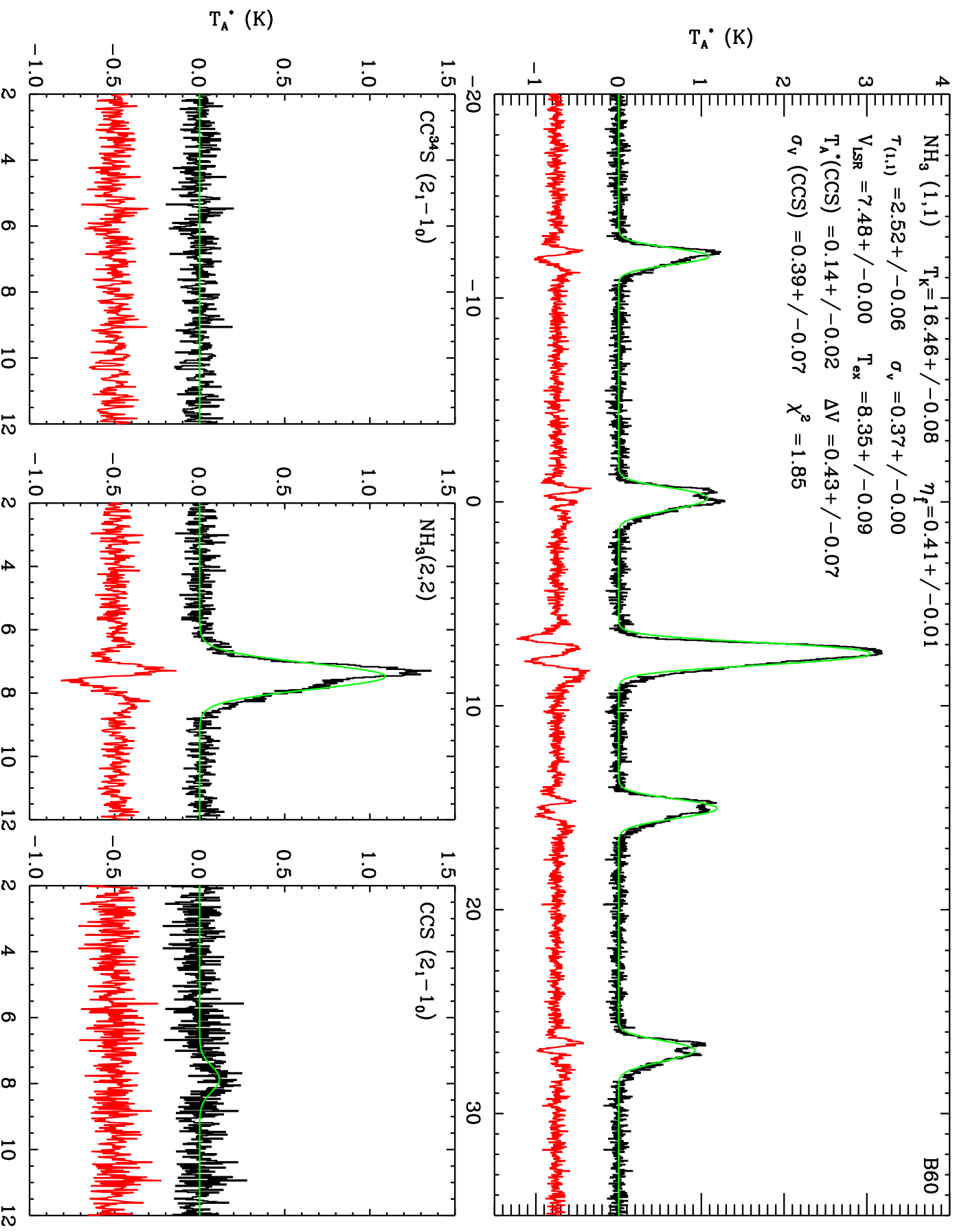
$\text{NH}_3(1,1)$ $T_K = 12.45 \pm 0.08$ $\eta_f = 0.35 \pm 0.00$
 $T_{(1,1)} = 3.57 \pm 0.08$ $\sigma_v = 0.22 \pm 0.00$
 $V_{\text{LSR}} = 7.34 \pm 0.00$ $T_{\text{ex}} = 6.13 \pm 0.05$
 $T_A^*(\text{CCS}) = 0.11 \pm 0.02$ $\Delta V = 0.06 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.18 \pm 0.03$ $\chi^2 = 1.33$

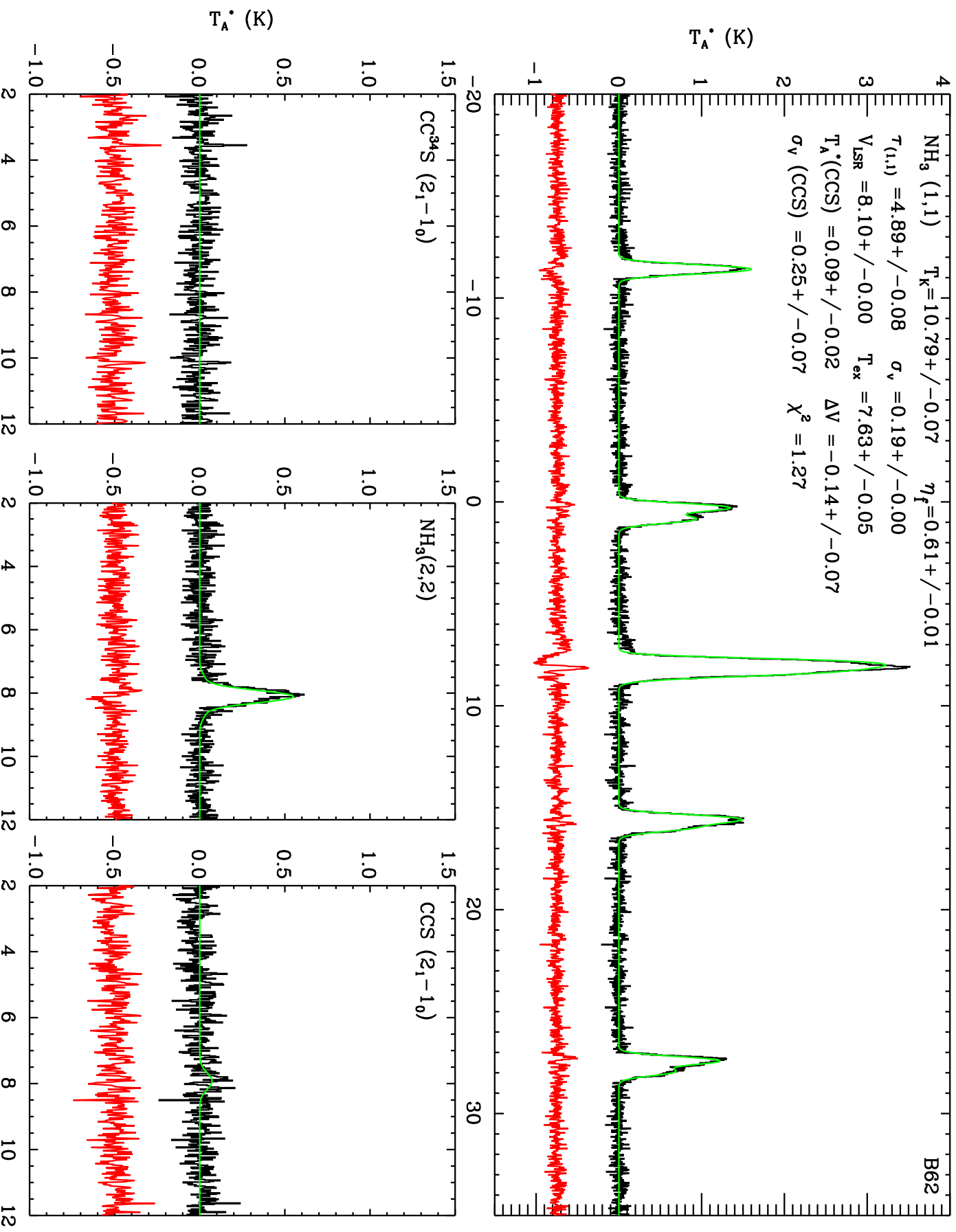
B59



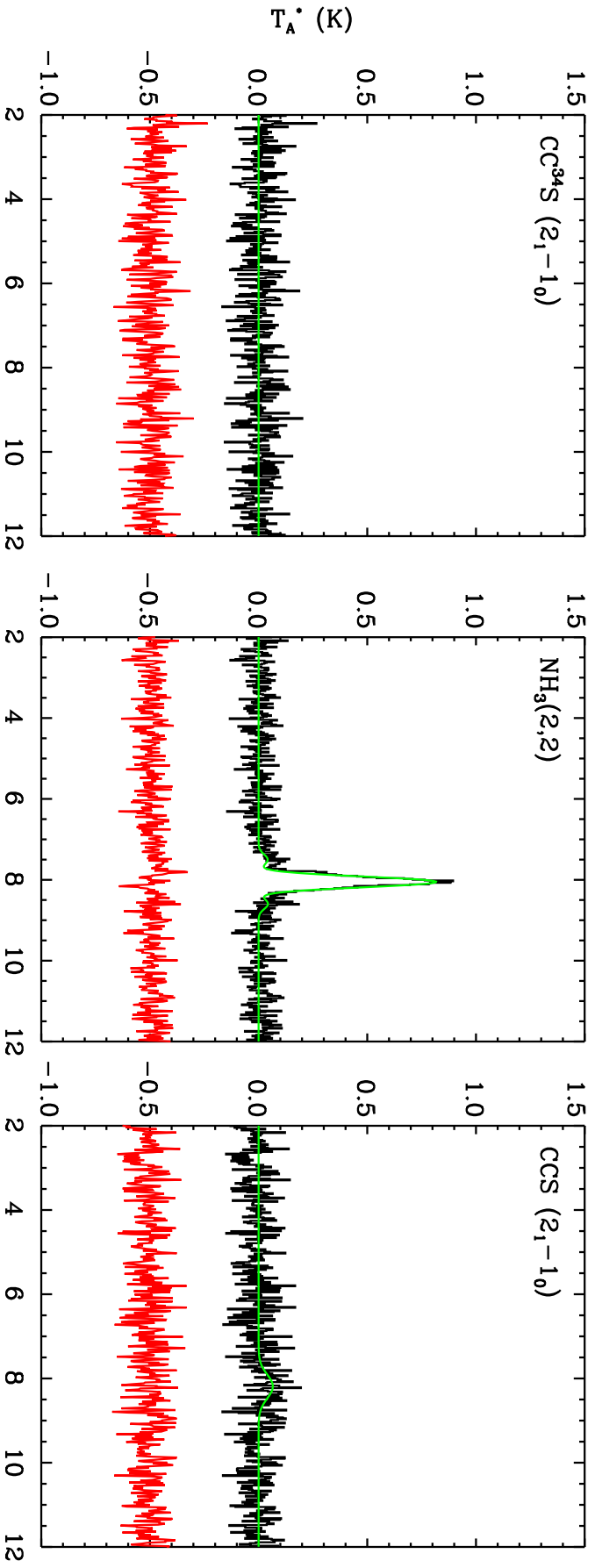
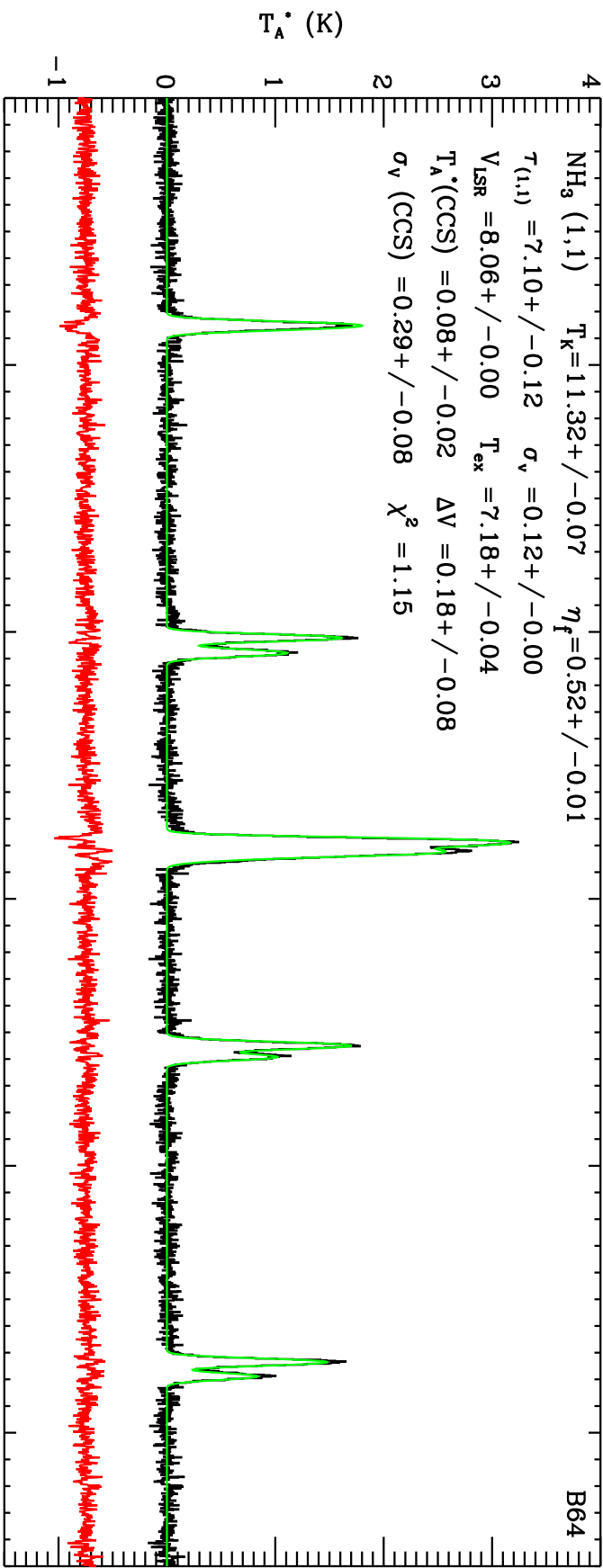
$\text{NH}_3(1,1)$ $T_K = 10.09 \pm 0.71$ $\eta_f = 0.27 \pm 0.09$
 $T_{(1,1)} = 1.24 \pm 0.47$ $\sigma_v = 0.14 \pm 0.01$
 $V_{\text{LSR}} = 4.24 \pm 0.01$ $T_{\text{ex}} = 4.74 \pm 0.66$
 $T_A^*(\text{CCS}) = 0.86 \pm 0.02$ $\Delta V = -0.01 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.00$ $\chi^2 = 0.94$

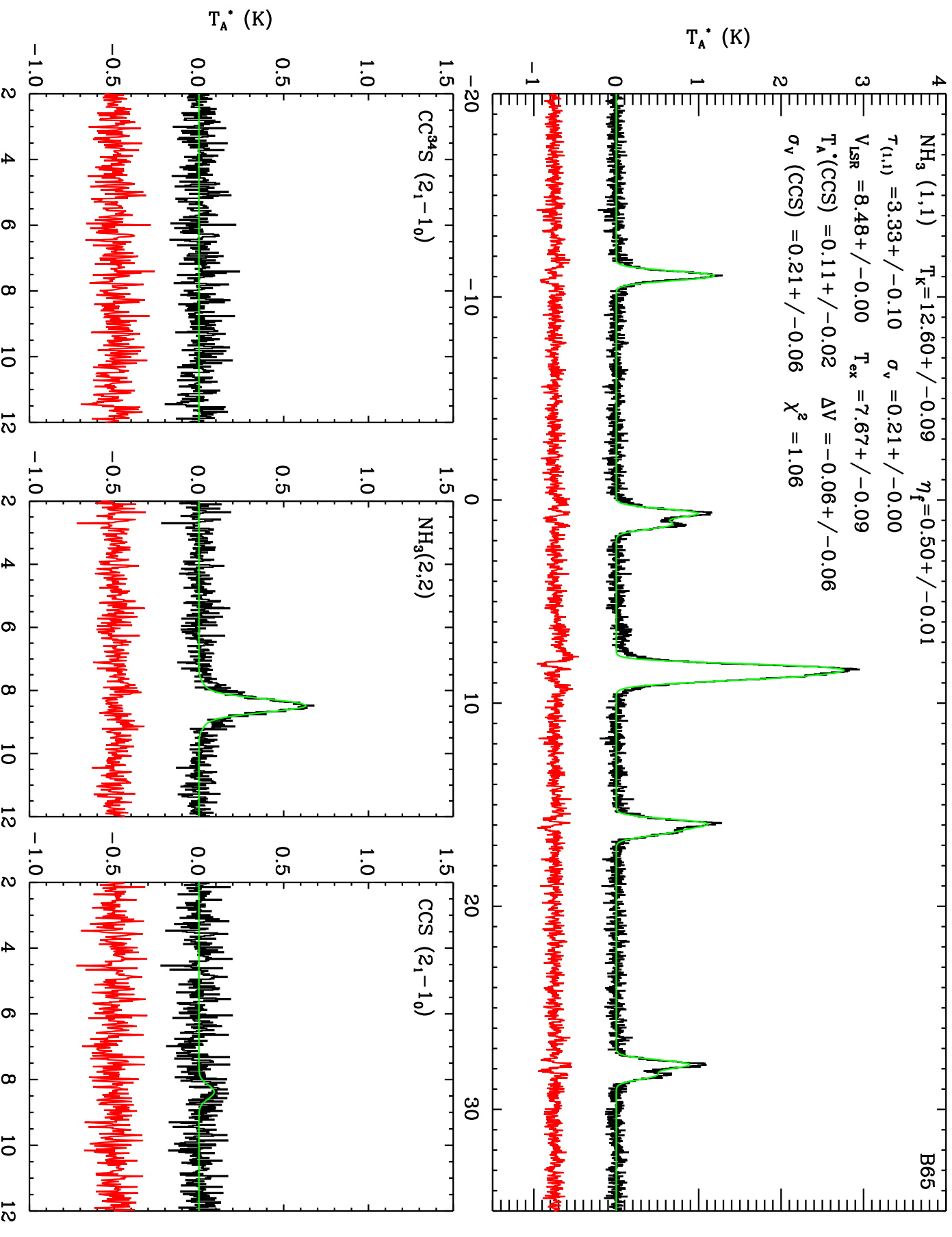


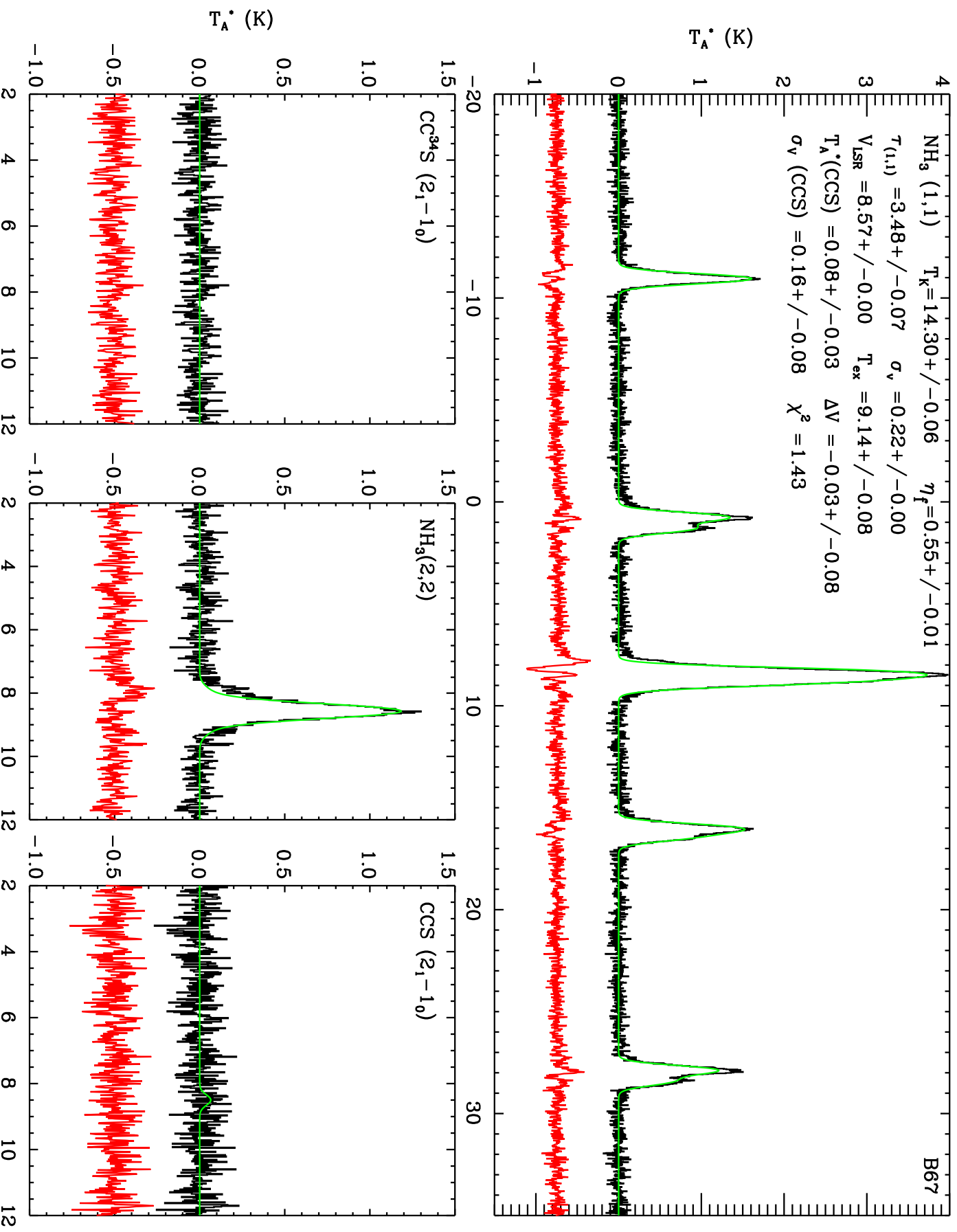




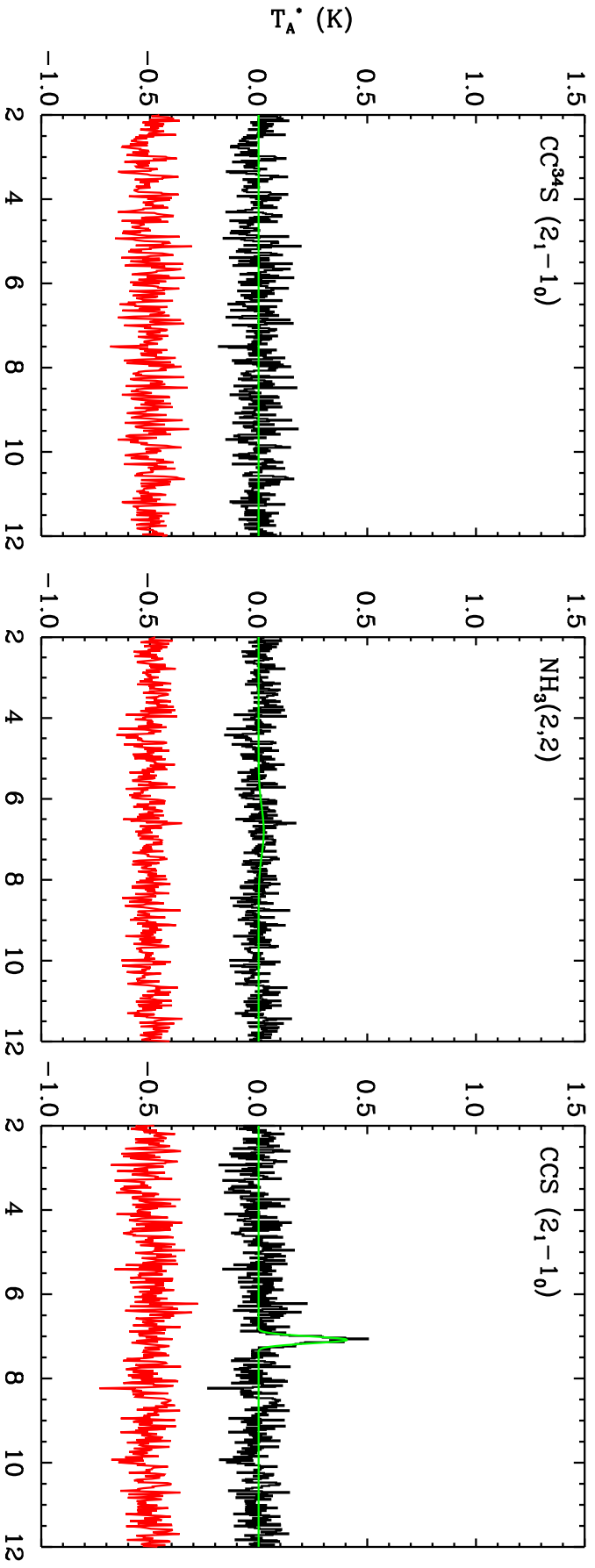
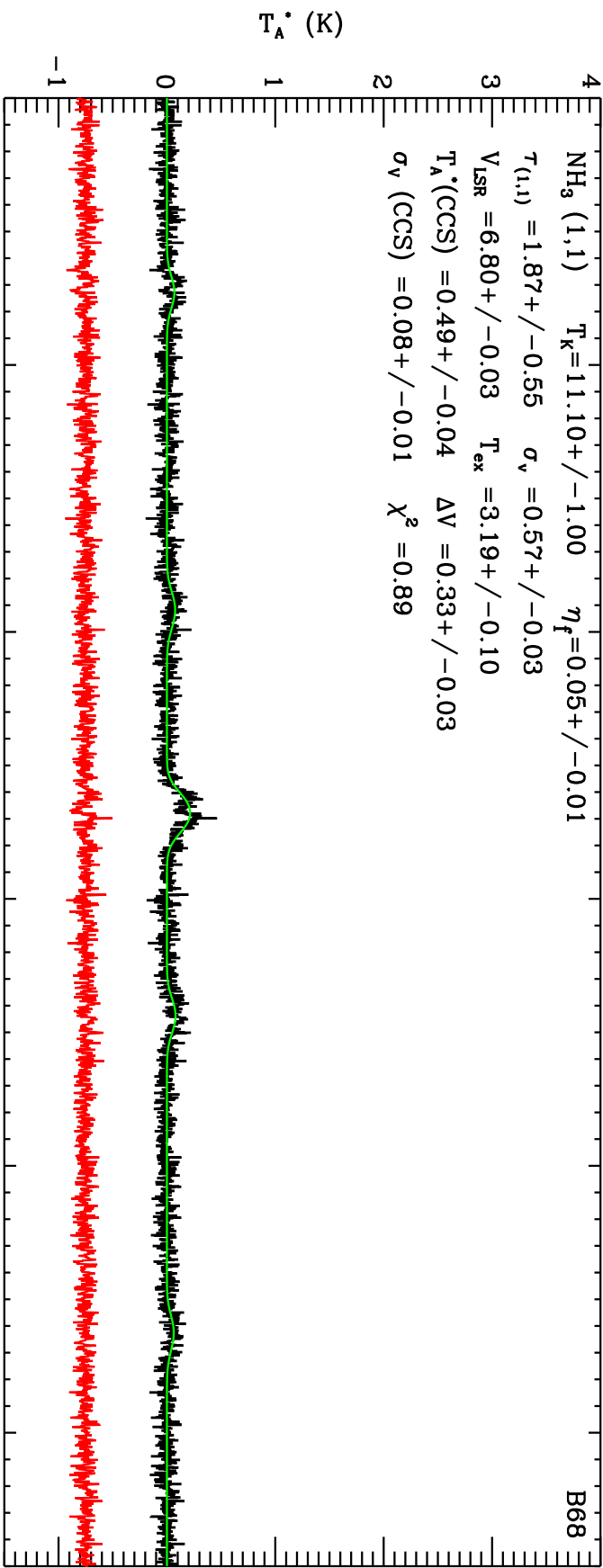
$\text{NH}_3(1,1)$ $T_K = 11.32 \pm 0.07$ $\eta_f = 0.52 \pm 0.01$
 $T_{(1,1)} = 7.10 \pm 0.12$ $\sigma_v = 0.12 \pm 0.00$
 $V_{\text{LSR}} = 8.06 \pm 0.00$ $T_{\text{ex}} = 7.18 \pm 0.04$
 $T_A^*(\text{CCS}) = 0.08 \pm 0.02$ $\Delta V = 0.18 \pm 0.08$
 $\sigma_v(\text{CCS}) = 0.29 \pm 0.08$ $\chi^2 = 1.15$



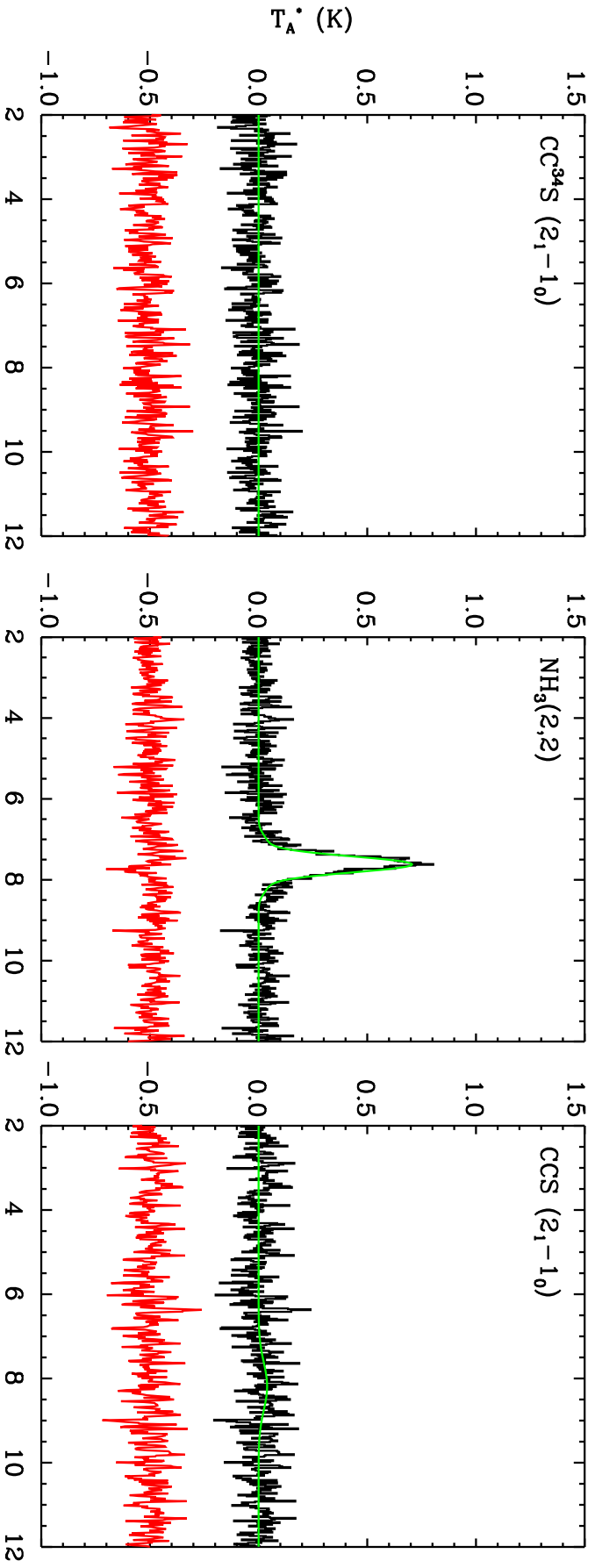
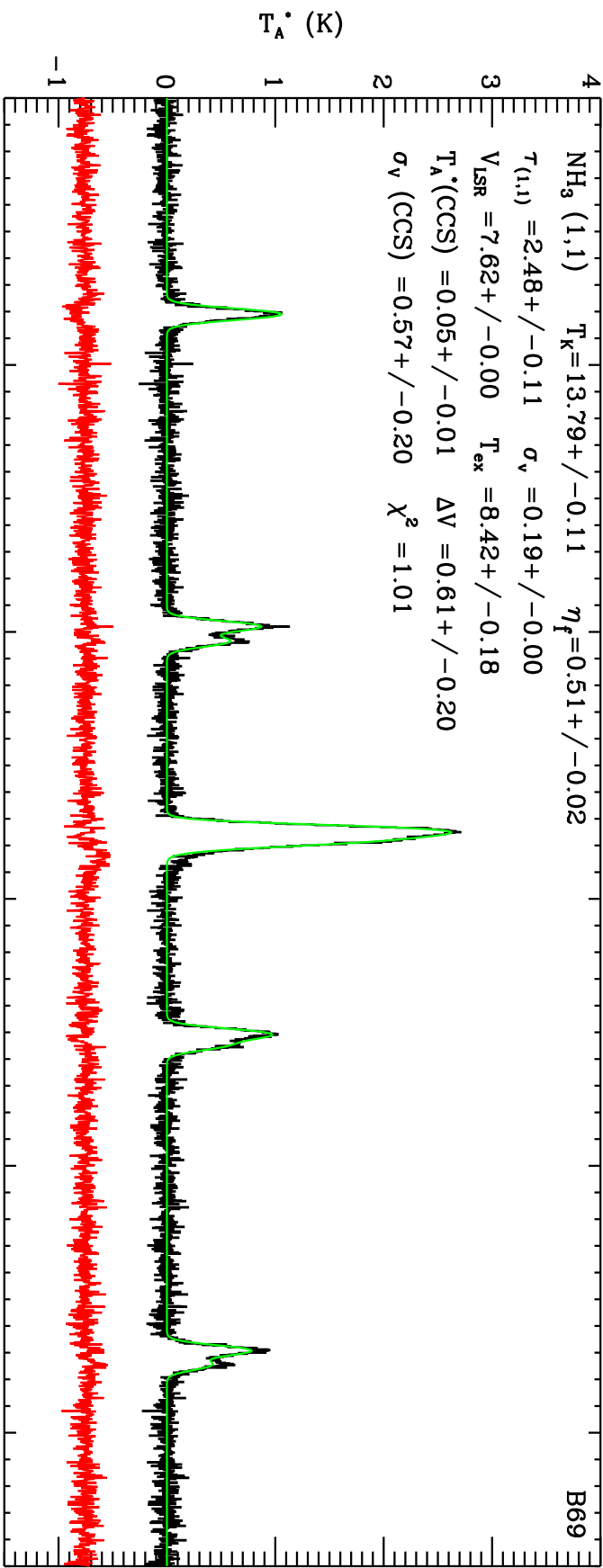




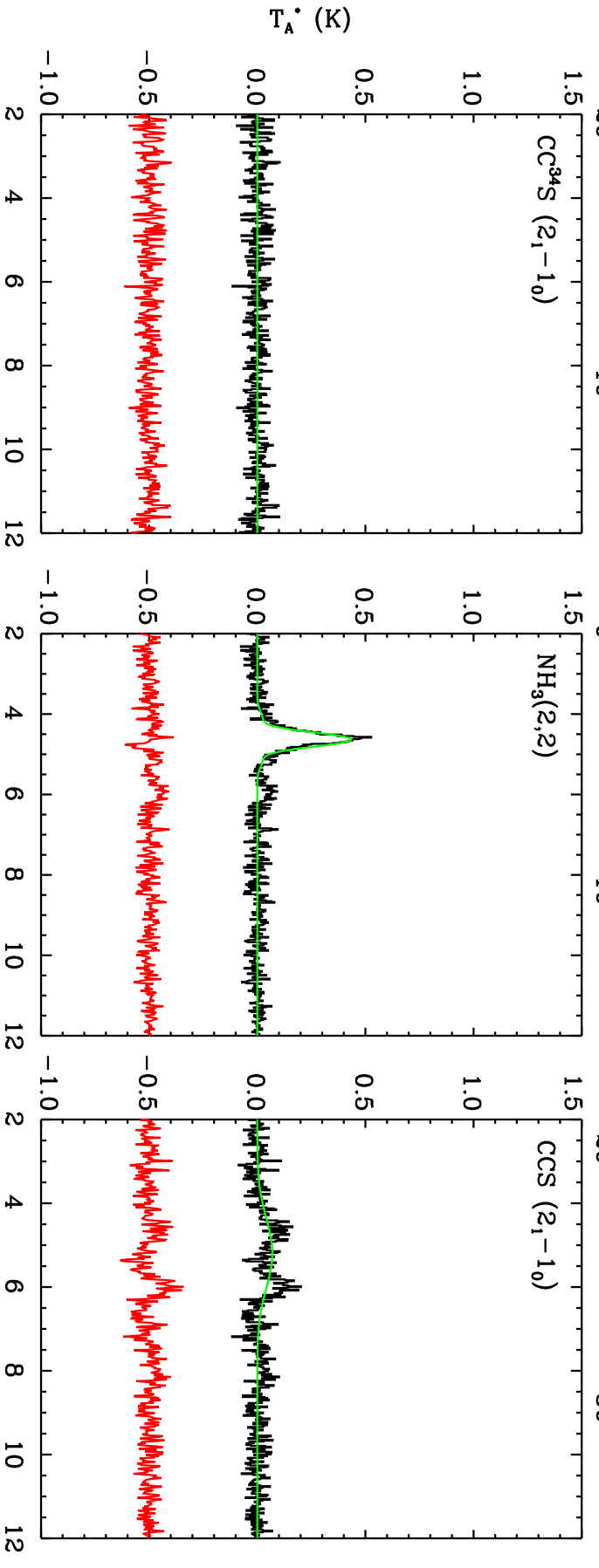
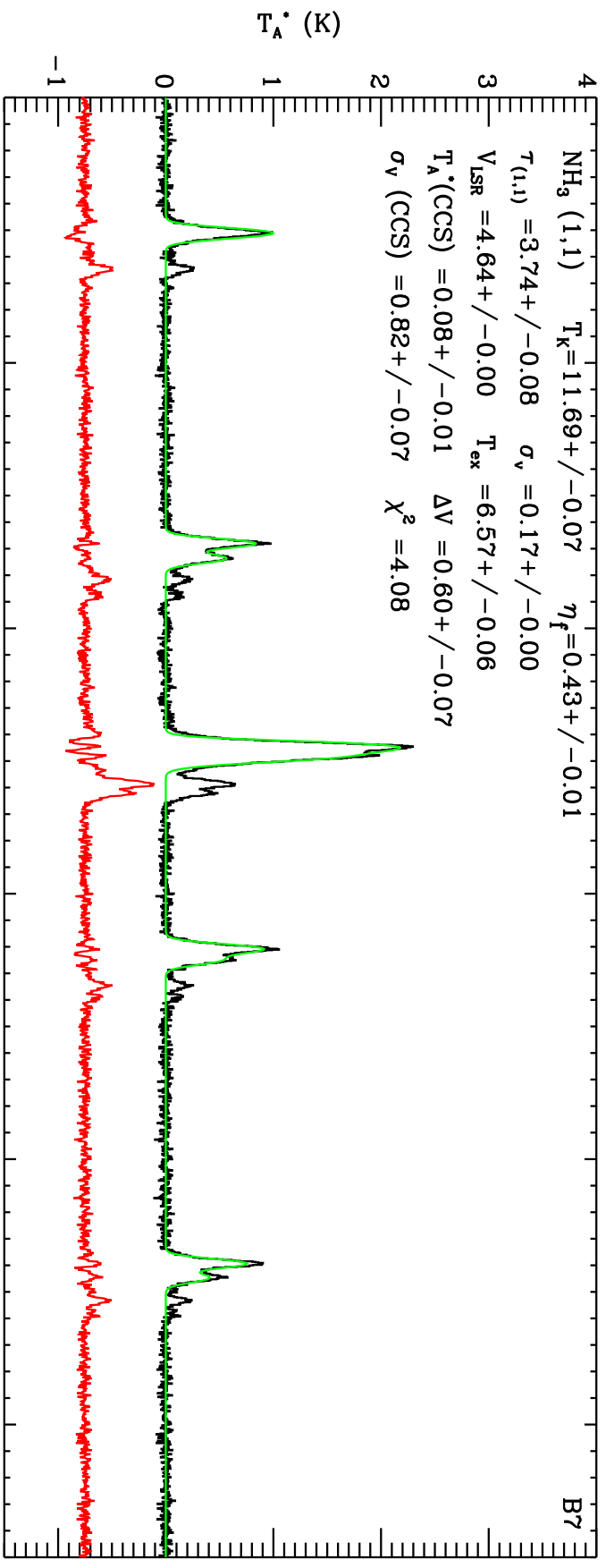
$\text{NH}_3(1,1)$ $T_K = 11.10 \pm 1.00$ $\eta_f = 0.05 \pm 0.01$
 $T_{(1,1)} = 1.87 \pm 0.55$ $\sigma_v = 0.57 \pm 0.03$
 $V_{\text{LSR}} = 6.80 \pm 0.03$ $T_{\text{ex}} = 3.19 \pm 0.10$
 $T_A^*(\text{CCS}) = 0.49 \pm 0.04$ $\Delta V = 0.33 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.08 \pm 0.01$ $\chi^2 = 0.89$



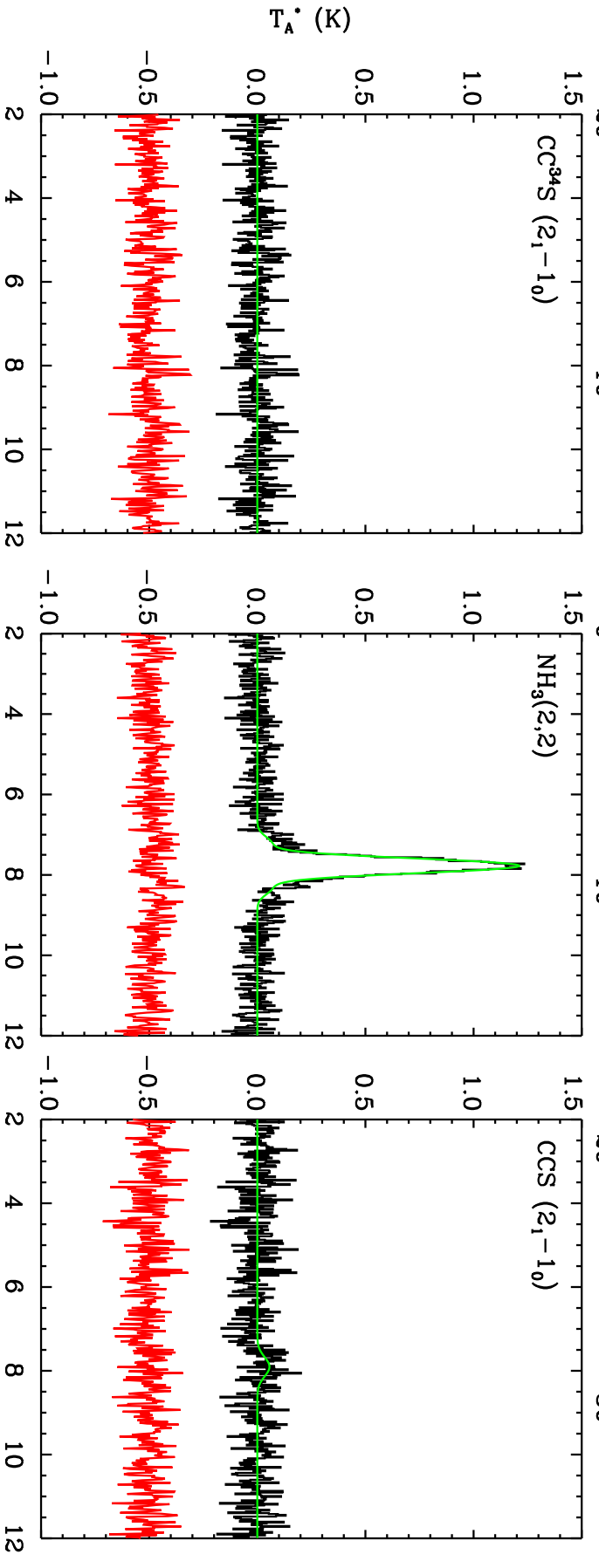
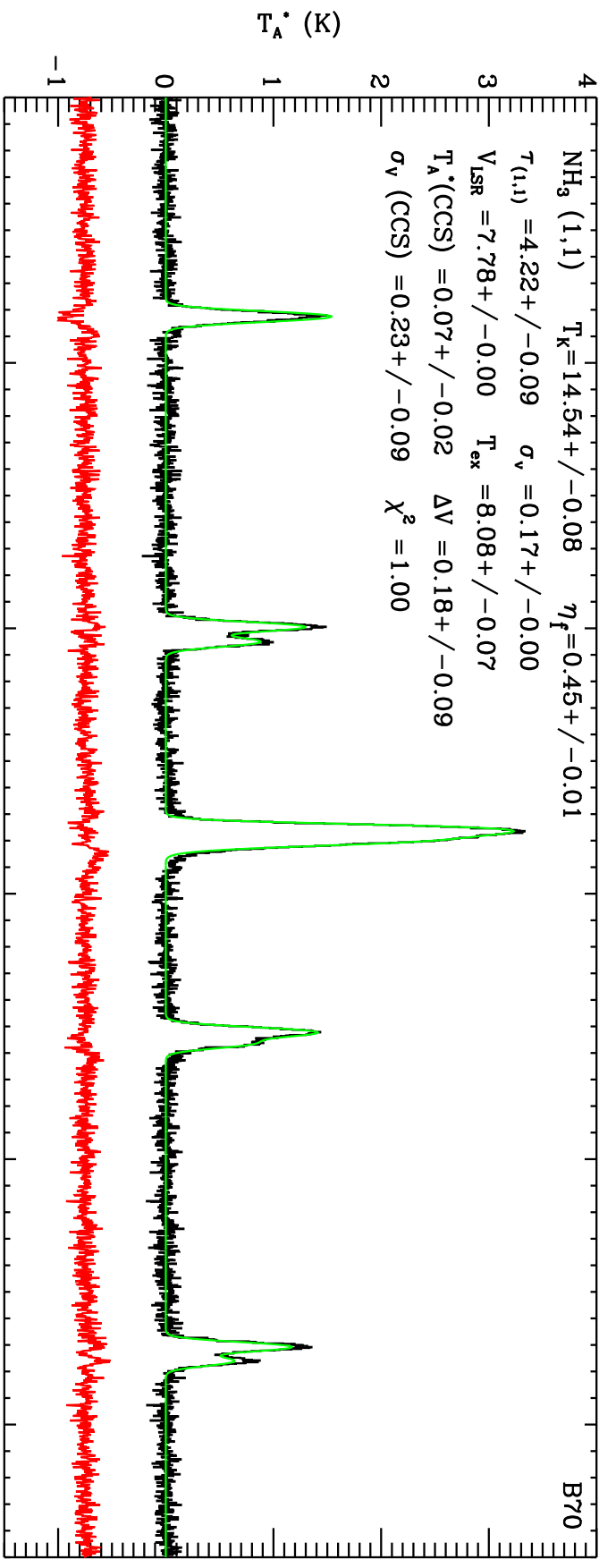
$\text{NH}_3(1,1)$ $T_K = 13.79 \pm 0.11$ $\eta_f = 0.51 \pm 0.02$
 $T_{(1,1)} = 2.48 \pm 0.11$ $\sigma_v = 0.19 \pm 0.00$
 $V_{\text{LSR}} = 7.62 \pm 0.00$ $T_{\text{ex}} = 8.42 \pm 0.18$
 $T_A^*(\text{CCS}) = 0.05 \pm 0.01$ $\Delta V = 0.61 \pm 0.20$
 $\sigma_v(\text{CCS}) = 0.57 \pm 0.20$ $\chi^2 = 1.01$

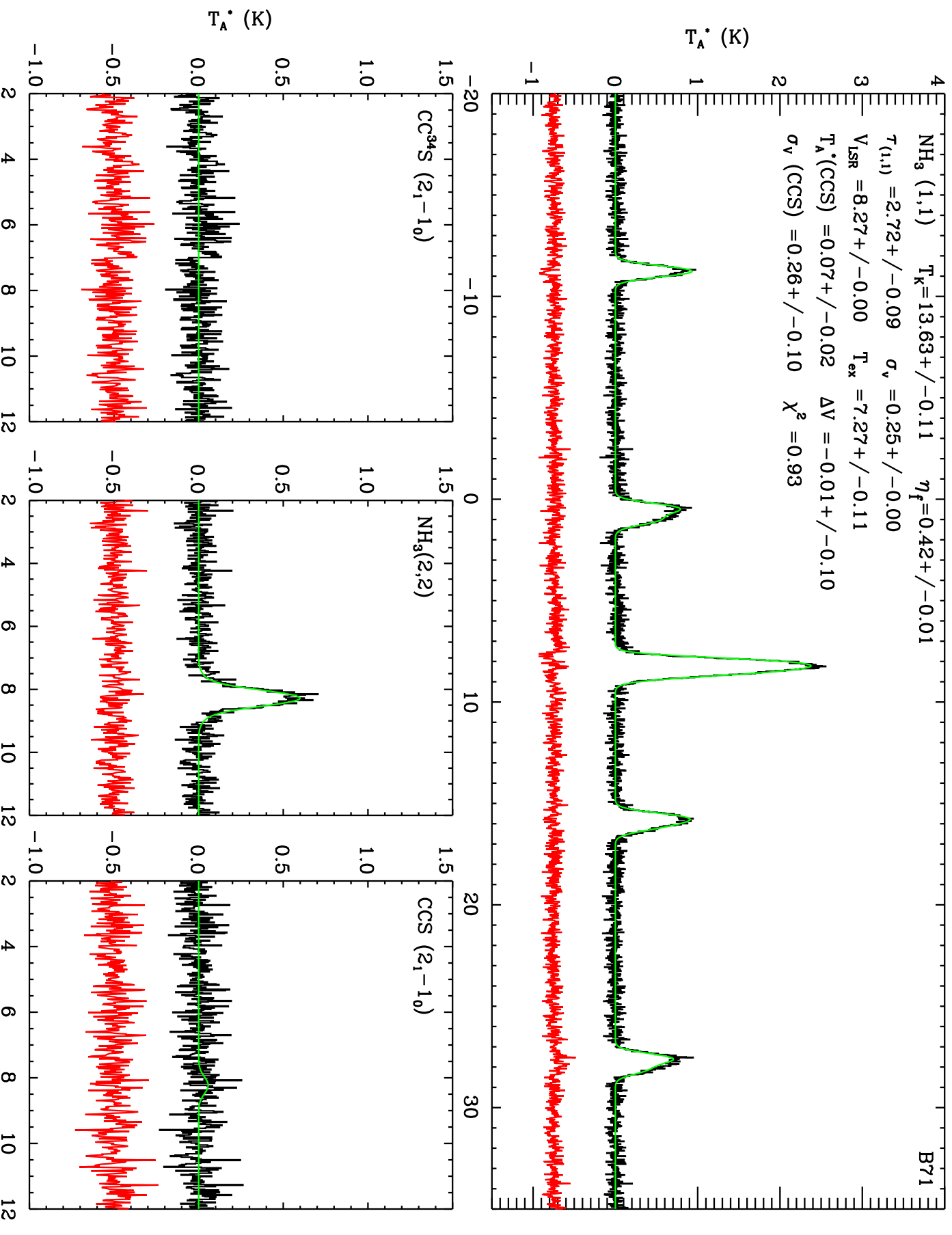


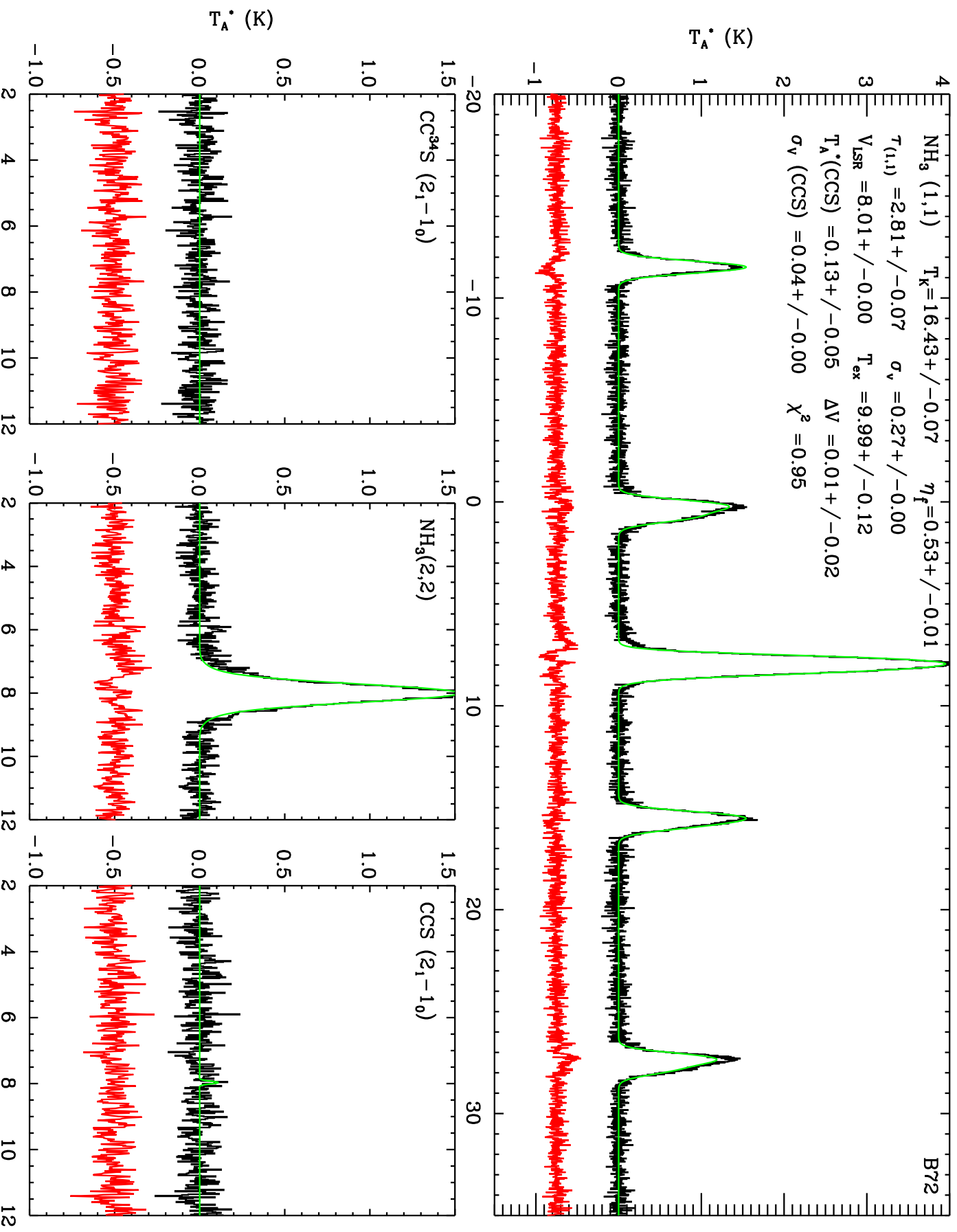
$\text{NH}_3(1,1)$ $T_K = 11.69 \pm 0.07$ $\eta_f = 0.43 \pm 0.01$
 $T_{(1,1)} = 3.74 \pm 0.08$ $\sigma_v = 0.17 \pm 0.00$
 $V_{\text{LSR}} = 4.64 \pm 0.00$ $T_{\text{ex}} = 6.57 \pm 0.06$
 $T_A^*(\text{CCS}) = 0.08 \pm 0.01$ $\Delta V = 0.60 \pm 0.07$
 $\sigma_v(\text{CCS}) = 0.82 \pm 0.07$ $\chi^2 = 4.08$

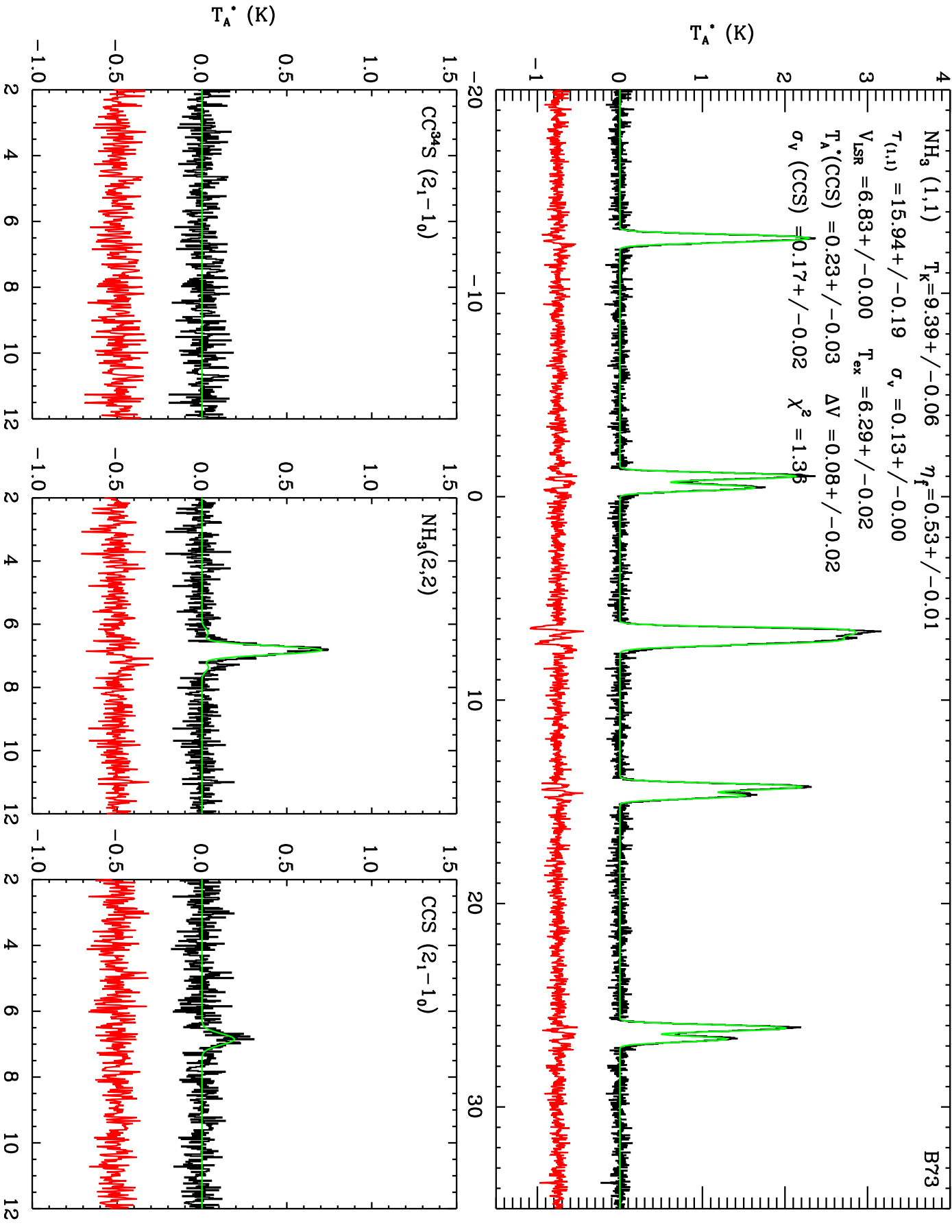


$\text{NH}_3(1,1)$ $T_K = 14.54 \pm 0.08$ $\eta_f = 0.45 \pm 0.01$
 $T_{(1,1)} = 4.22 \pm 0.09$ $\sigma_v = 0.17 \pm 0.00$
 $V_{\text{LSR}} = 7.78 \pm 0.00$ $T_{\text{ex}} = 8.08 \pm 0.07$
 $T_A^*(\text{CCS}) = 0.07 \pm 0.02$ $\Delta V = 0.18 \pm 0.09$
 $\sigma_v(\text{CCS}) = 0.23 \pm 0.09$ $\chi^2 = 1.00$









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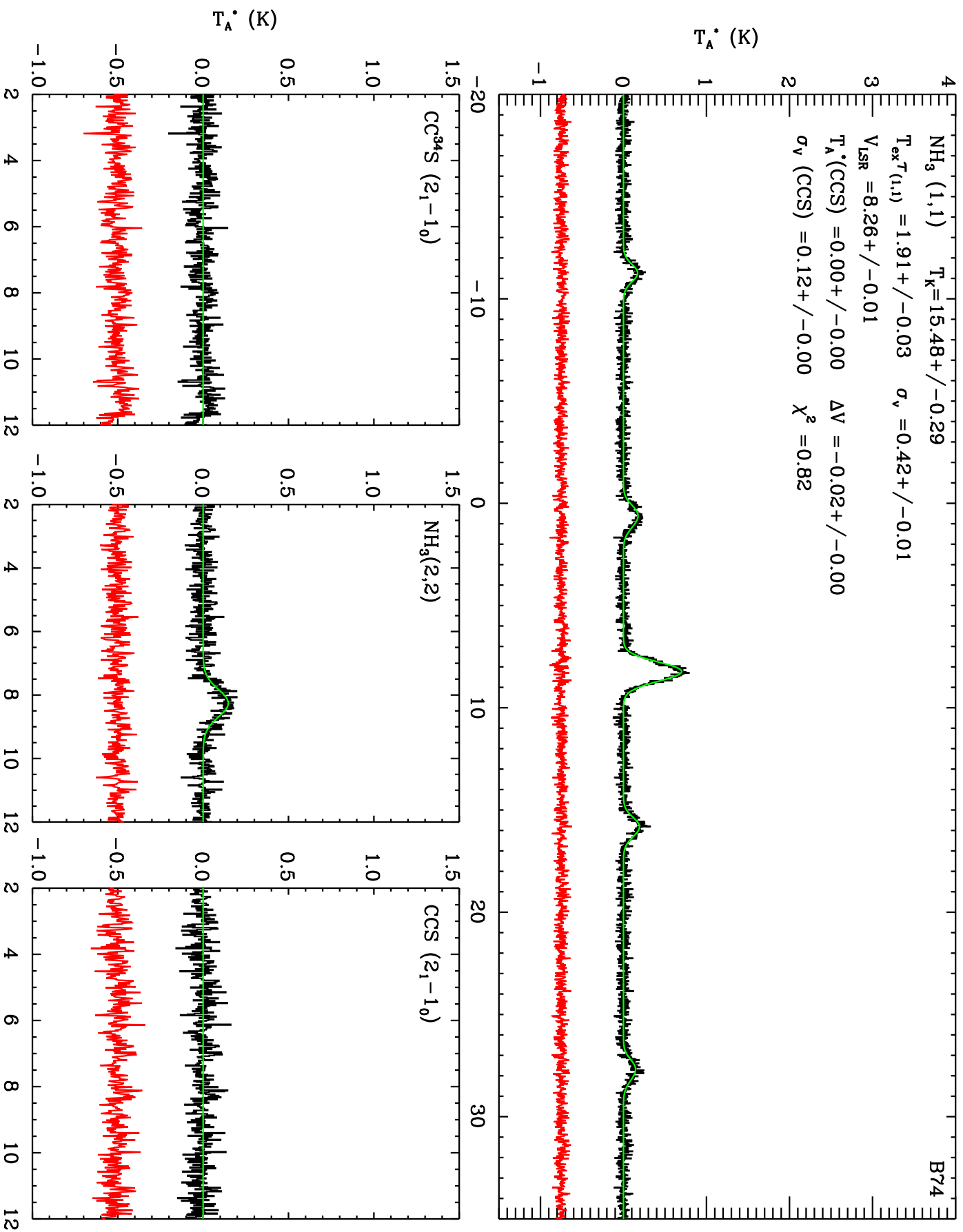
NH₃ (1,1) $T_K = 15.48 \pm 0.29$

$T_{\text{ex}}^{T(1,1)} = 1.91 \pm 0.03$ $\sigma_v = 0.42 \pm 0.01$

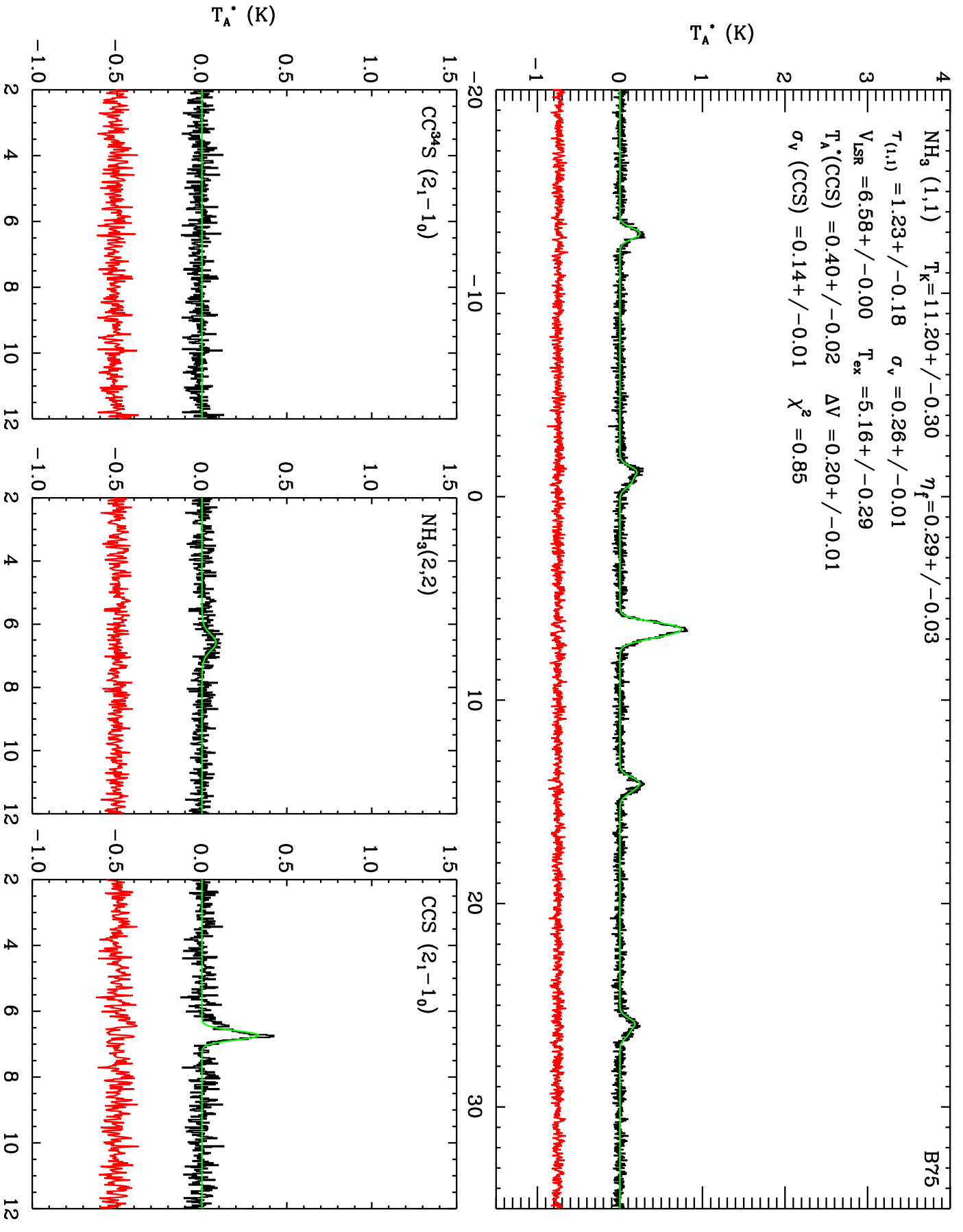
$V_{\text{LSR}} = 8.26 \pm 0.01$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.02 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.12 \pm 0.00$ $\chi^2 = 0.82$



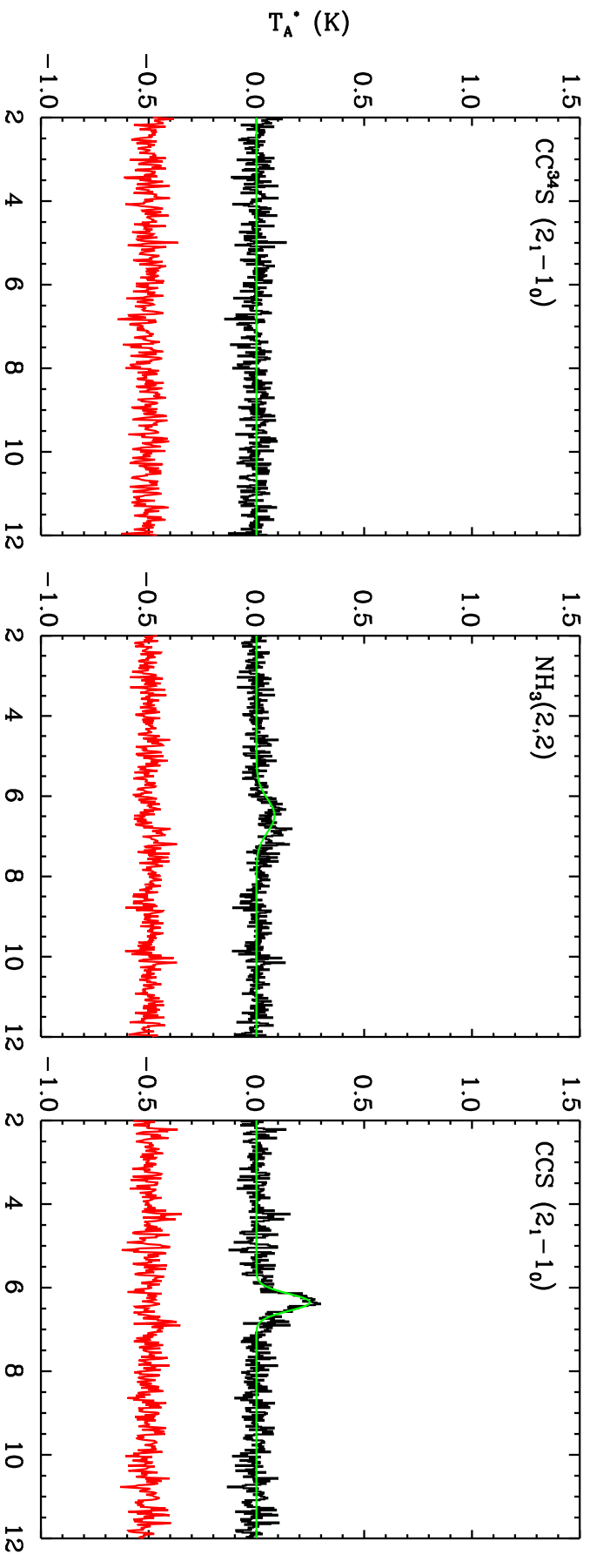
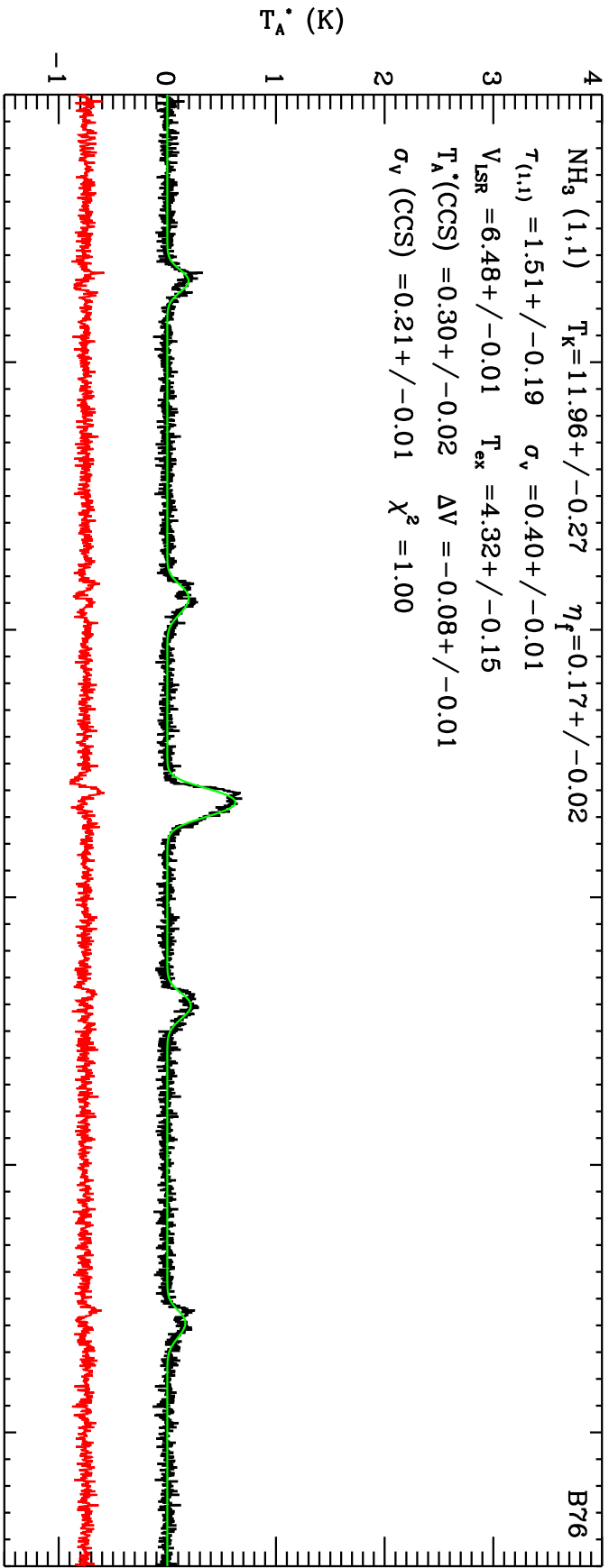
NH₃ (1,1) $T_K = 11.20 \pm 0.30$ $\eta_f = 0.29 \pm 0.03$
 $T_{(1,1)} = 1.23 \pm 0.18$ $\sigma_v = 0.26 \pm 0.01$
 $V_{LSR} = 6.58 \pm 0.00$ $T_{ex} = 5.16 \pm 0.29$
 $T_A^*(CCS) = 0.40 \pm 0.02$ $\Delta V = 0.20 \pm 0.01$
 σ_v (CCS) = 0.14 ± 0.01 $\chi^2 = 0.85$



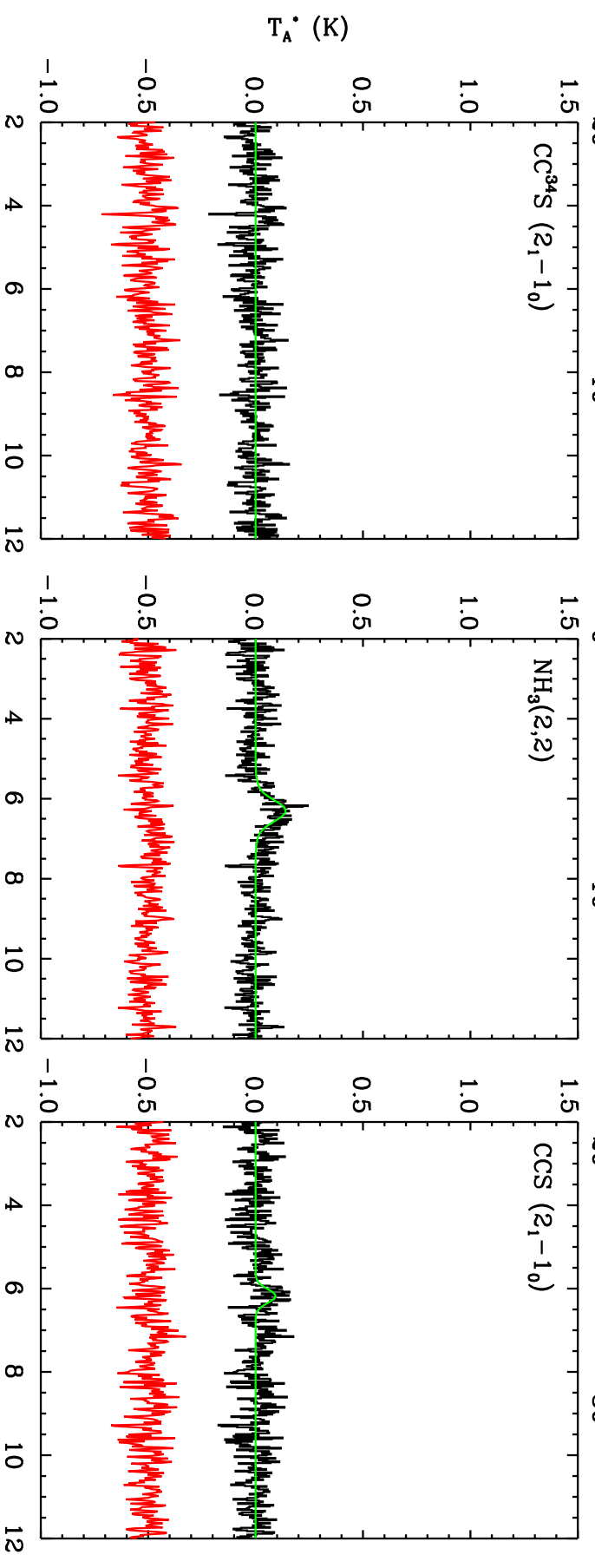
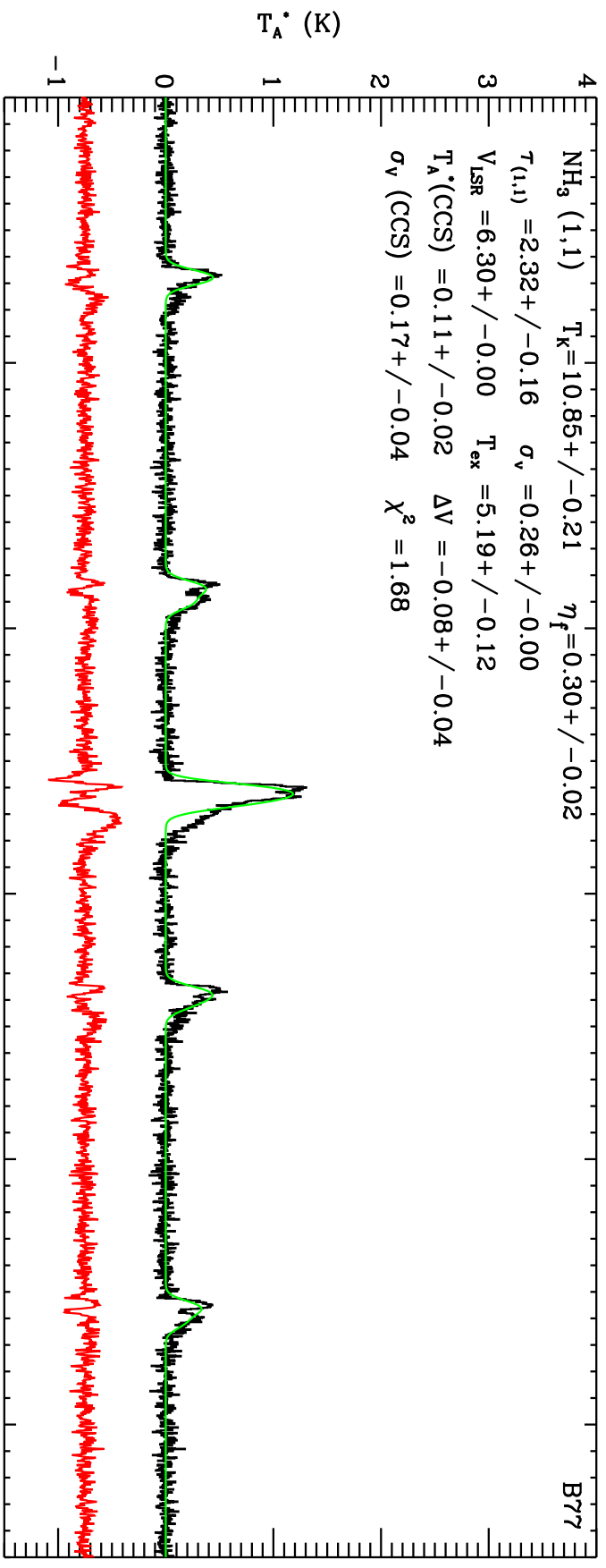
B75

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$\text{NH}_3(1,1)$ $T_K = 11.96 \pm 0.27$ $\eta_f = 0.17 \pm 0.02$
 $T_{(1,1)} = 1.51 \pm 0.19$ $\sigma_v = 0.40 \pm 0.01$
 $V_{\text{LSR}} = 6.48 \pm 0.01$ $T_{\text{ex}} = 4.32 \pm 0.15$
 $T_A^*(\text{CCS}) = 0.30 \pm 0.02$ $\Delta V = -0.08 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.21 \pm 0.01$ $\chi^2 = 1.00$



$\text{NH}_3(1,1)$ $T_K = 10.85 \pm 0.21$ $\eta_f = 0.30 \pm 0.02$
 $T_{(1,1)} = 2.32 \pm 0.16$ $\sigma_v = 0.26 \pm 0.00$
 $V_{\text{LSR}} = 6.30 \pm 0.00$ $T_{\text{ex}} = 5.19 \pm 0.12$
 $T_A^*(\text{CCS}) = 0.11 \pm 0.02$ $\Delta V = -0.08 \pm 0.04$
 $\sigma_v(\text{CCS}) = 0.17 \pm 0.04$ $\chi^2 = 1.68$



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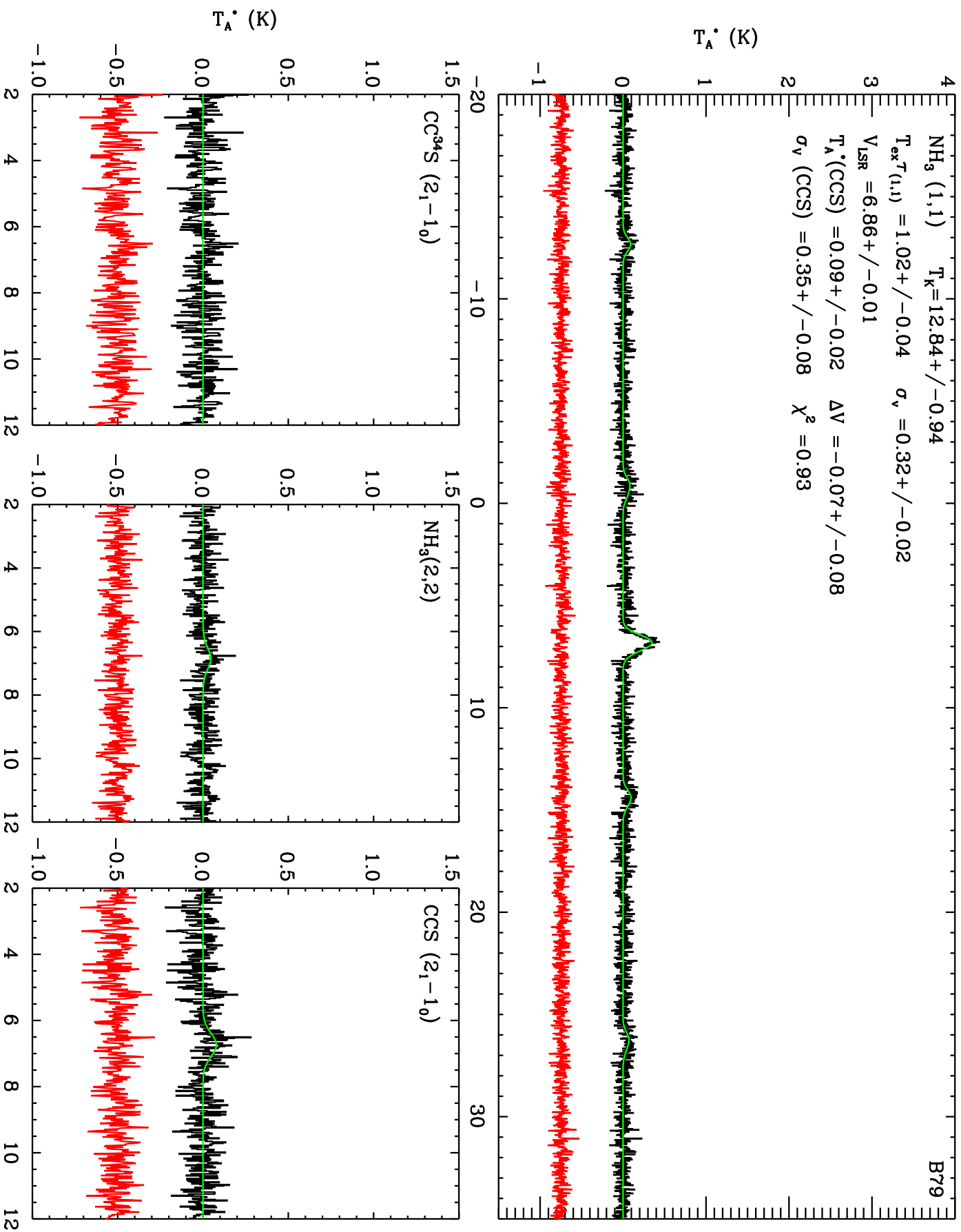
NH₃ (1,1) $T_K = 12.84 \pm 0.94$

$T_{\text{ex}}^{T(1,1)} = 1.02 \pm 0.04$ $\sigma_v = 0.32 \pm 0.02$

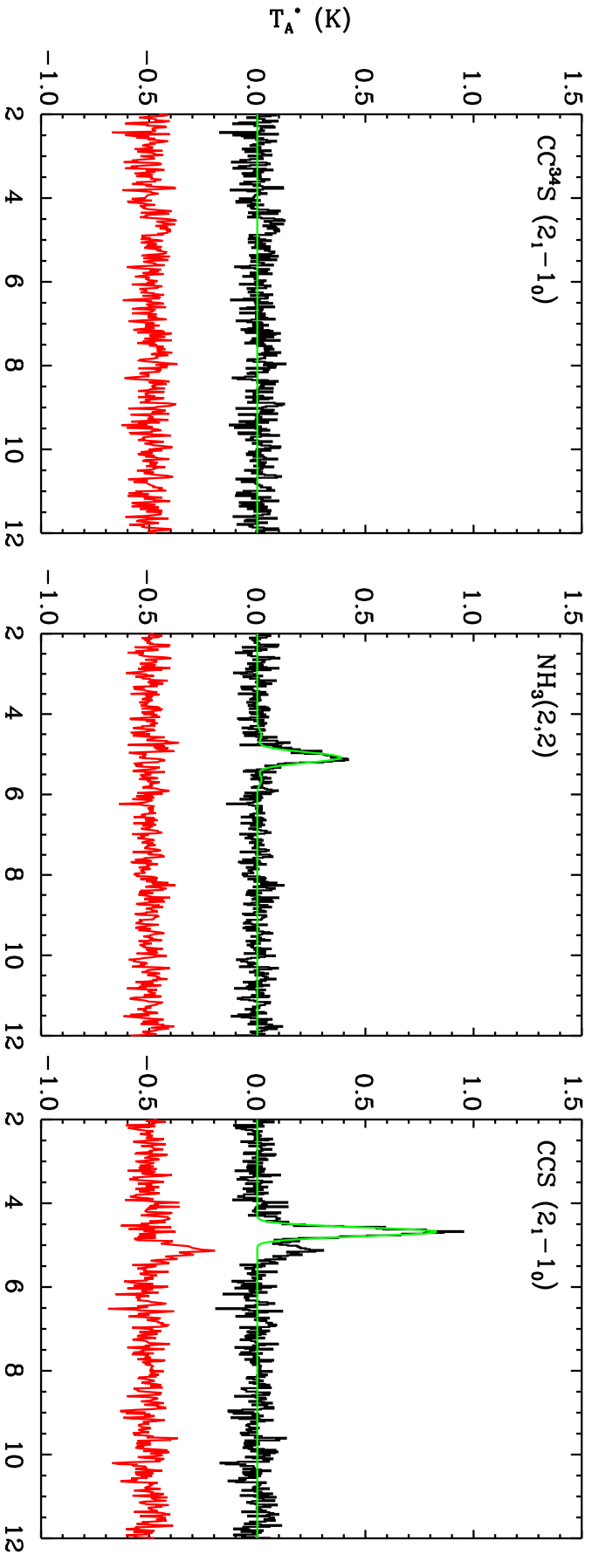
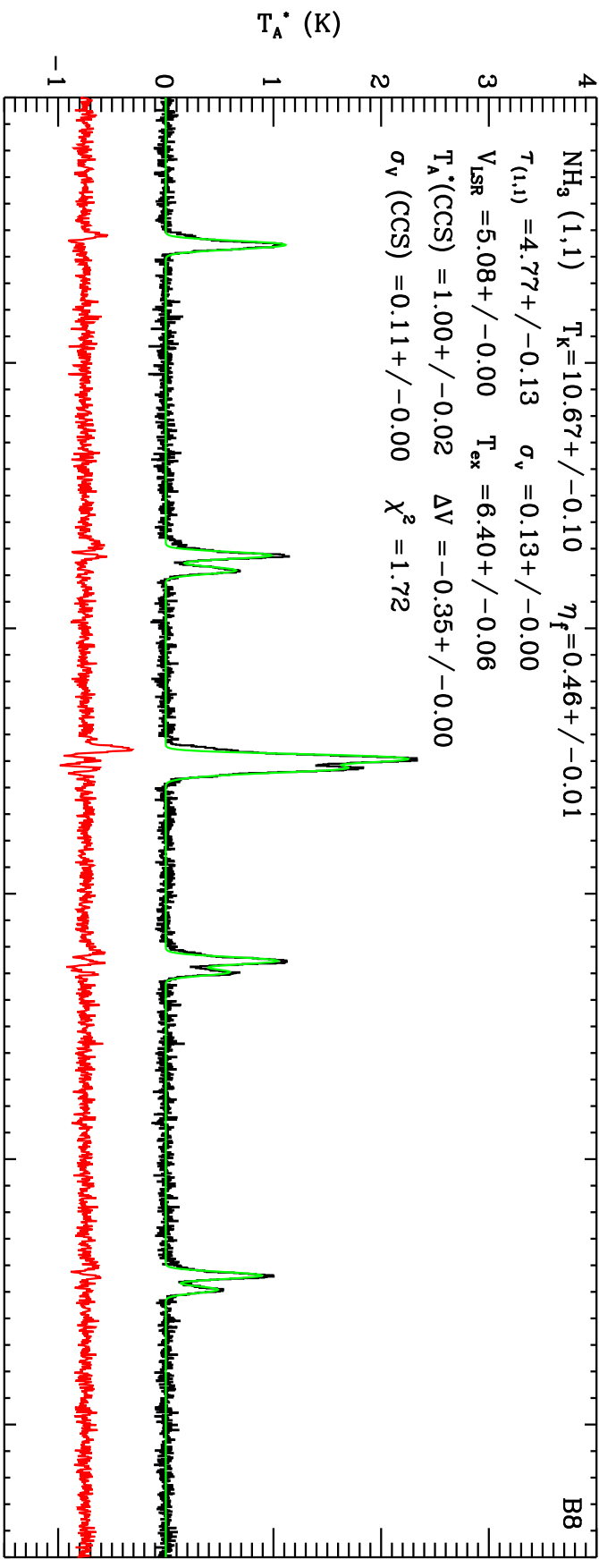
$V_{\text{LSR}} = 6.86 \pm 0.01$

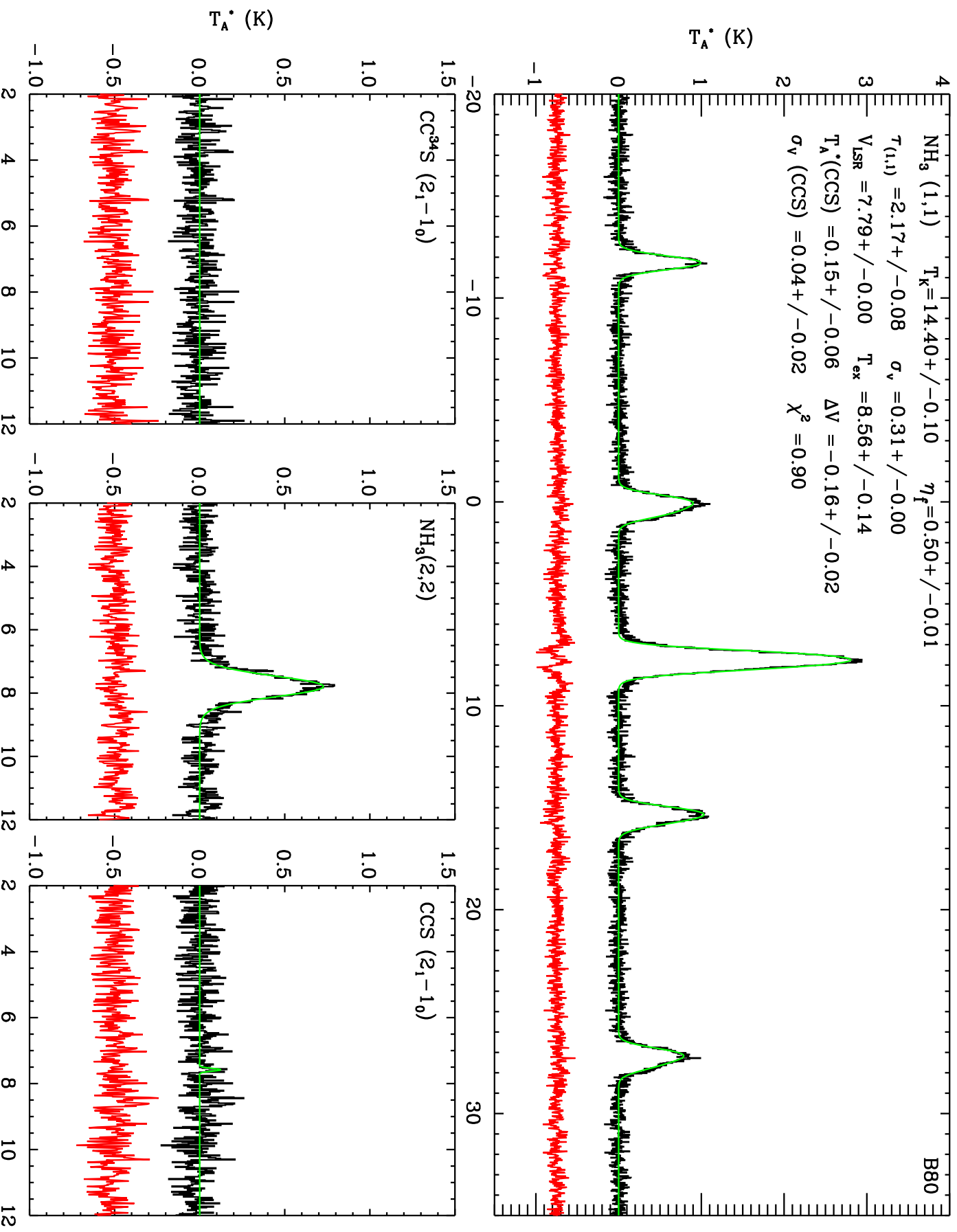
$T_A^*(\text{CCS}) = 0.09 \pm 0.02$ $\Delta V = -0.07 \pm 0.08$

$\sigma_v(\text{CCS}) = 0.35 \pm 0.08$ $\chi^2 = 0.93$

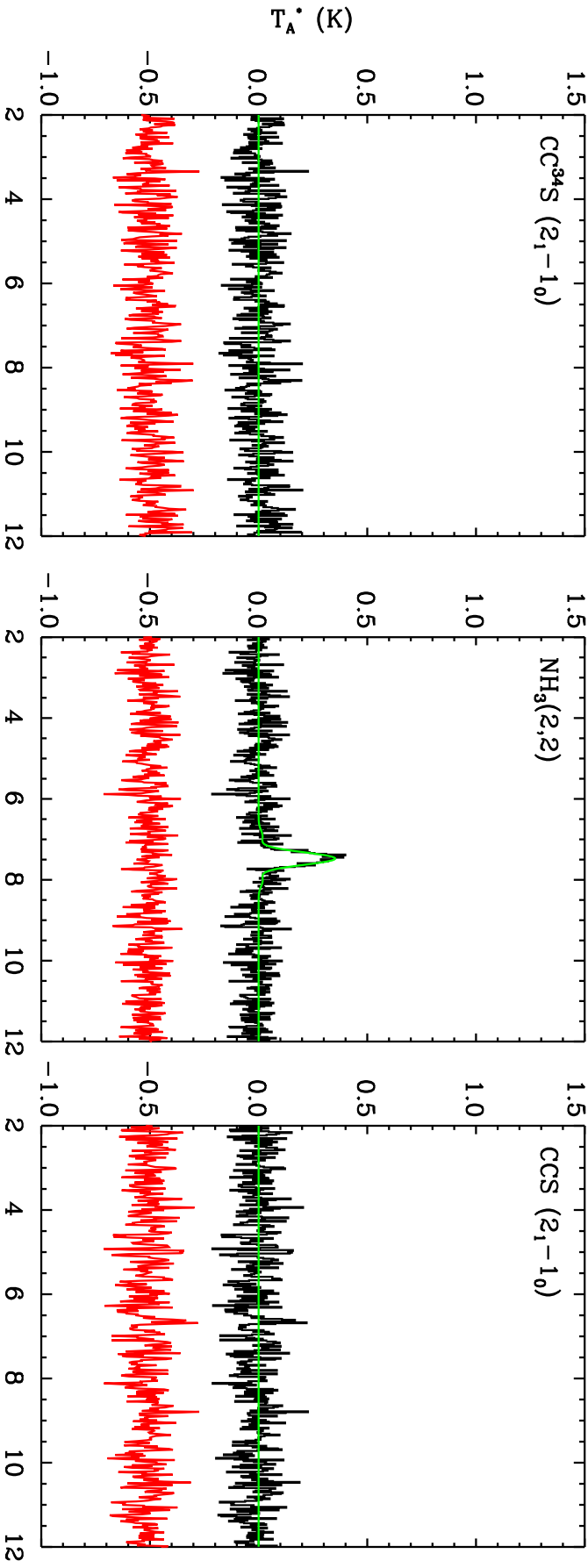
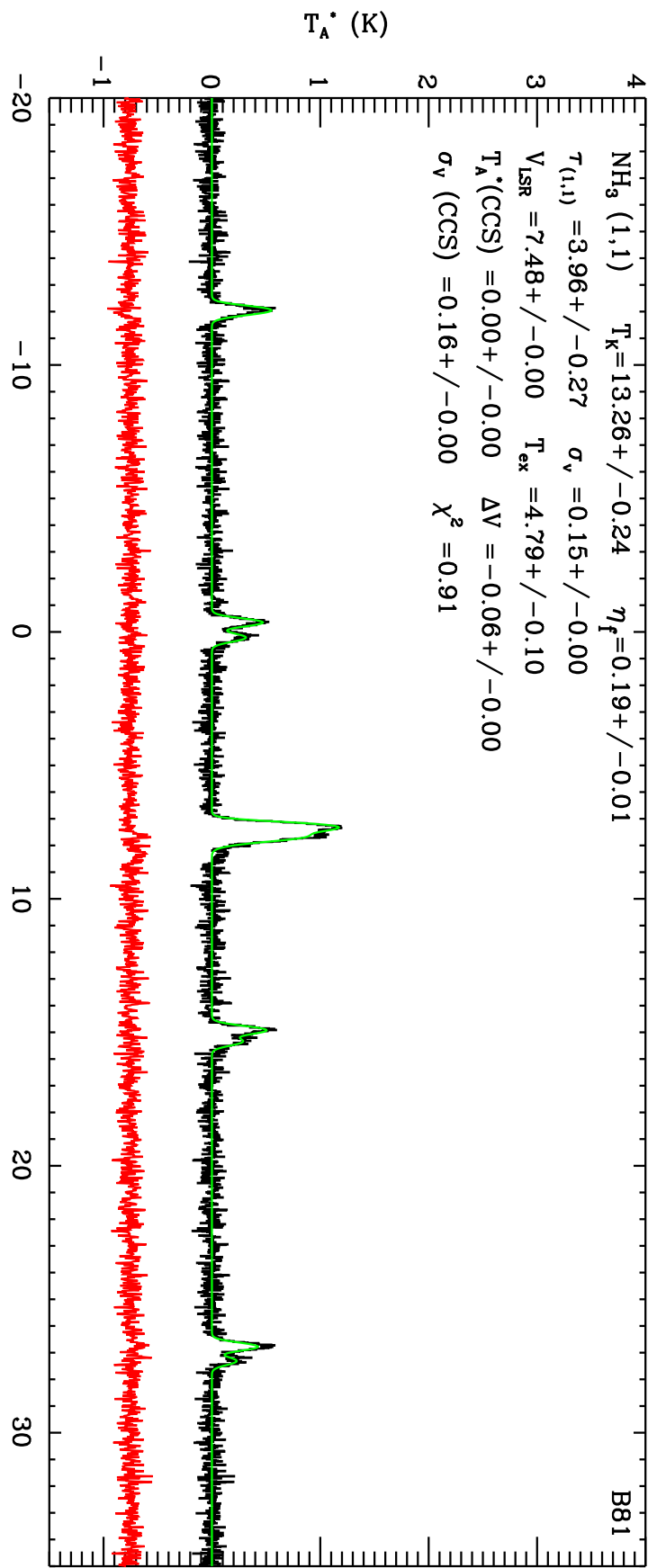


$\text{NH}_3(1,1)$ $T_K = 10.67 \pm 0.10$ $\eta_f = 0.46 \pm 0.01$
 $T_{(1,1)} = 4.77 \pm 0.13$ $\sigma_v = 0.13 \pm 0.00$
 $V_{\text{LSR}} = 5.08 \pm 0.00$ $T_{\text{ex}} = 6.40 \pm 0.06$
 $T_A^*(\text{CCS}) = 1.00 \pm 0.02$ $\Delta V = -0.35 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.11 \pm 0.00$ $\chi^2 = 1.72$

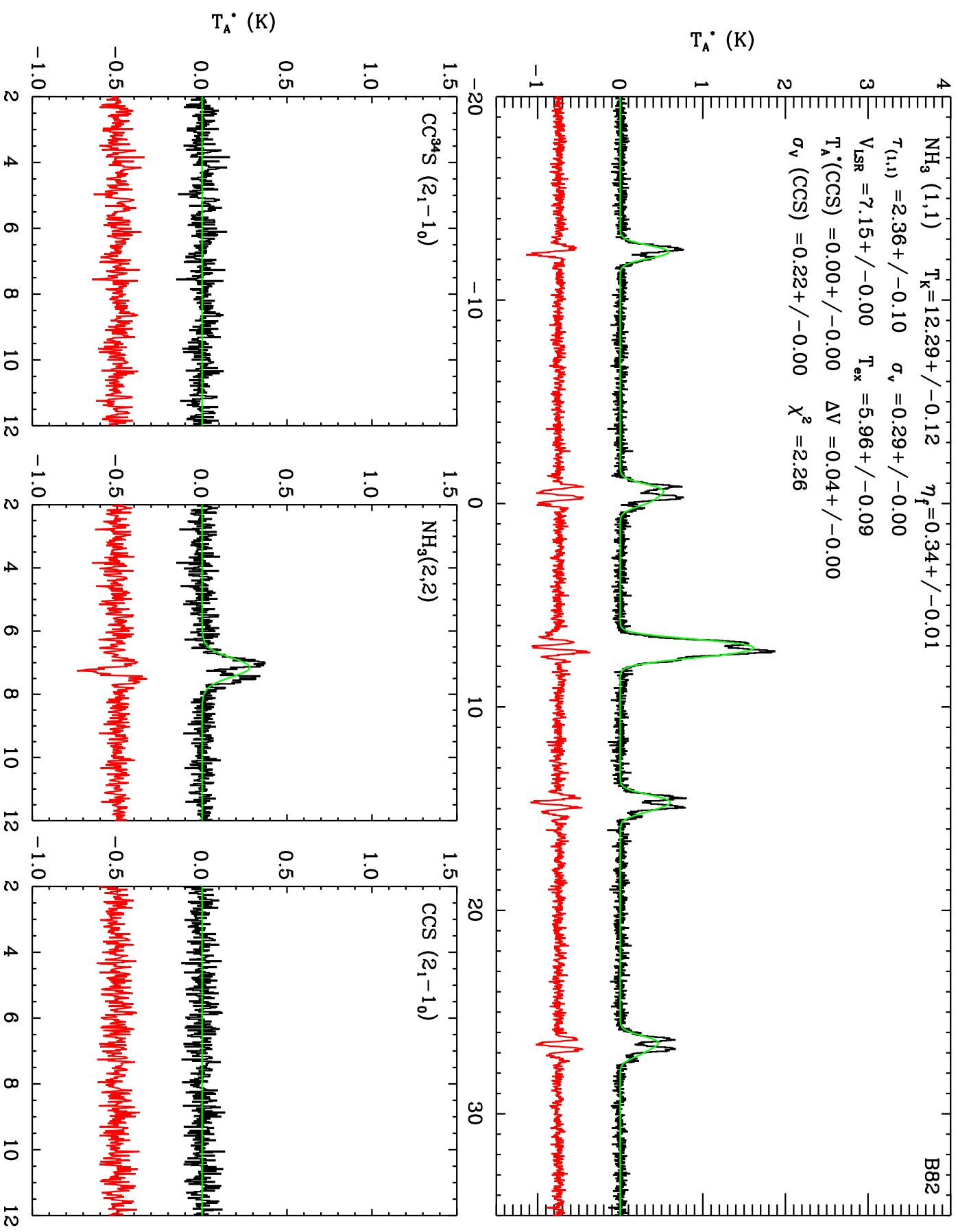




$\text{NH}_3(1,1)$ $T_K = 13.26 \pm 0.24$ $\eta_f = 0.19 \pm 0.01$
 $T_{(1,1)} = 3.96 \pm 0.27$ $\sigma_v = 0.15 \pm 0.00$
 $V_{\text{LSR}} = 7.48 \pm 0.00$ $T_{\text{ex}} = 4.79 \pm 0.10$
 $T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.06 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.00$ $\chi^2 = 0.91$

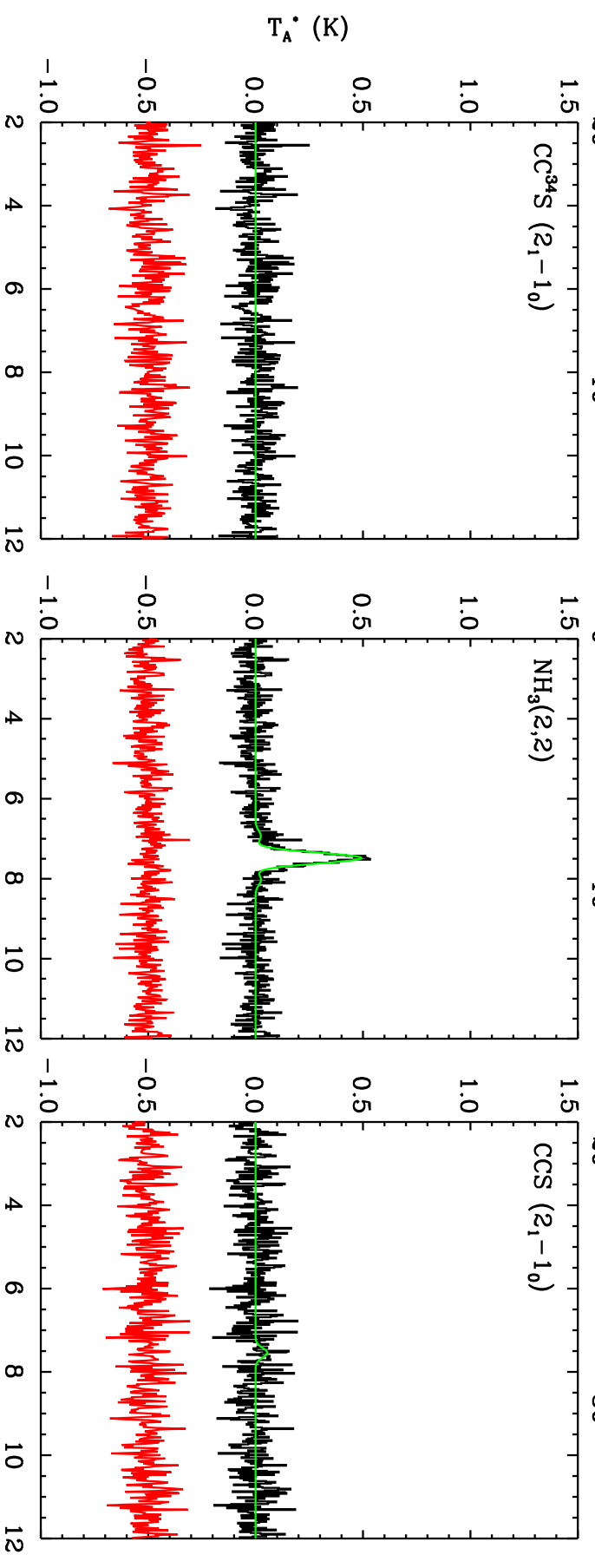
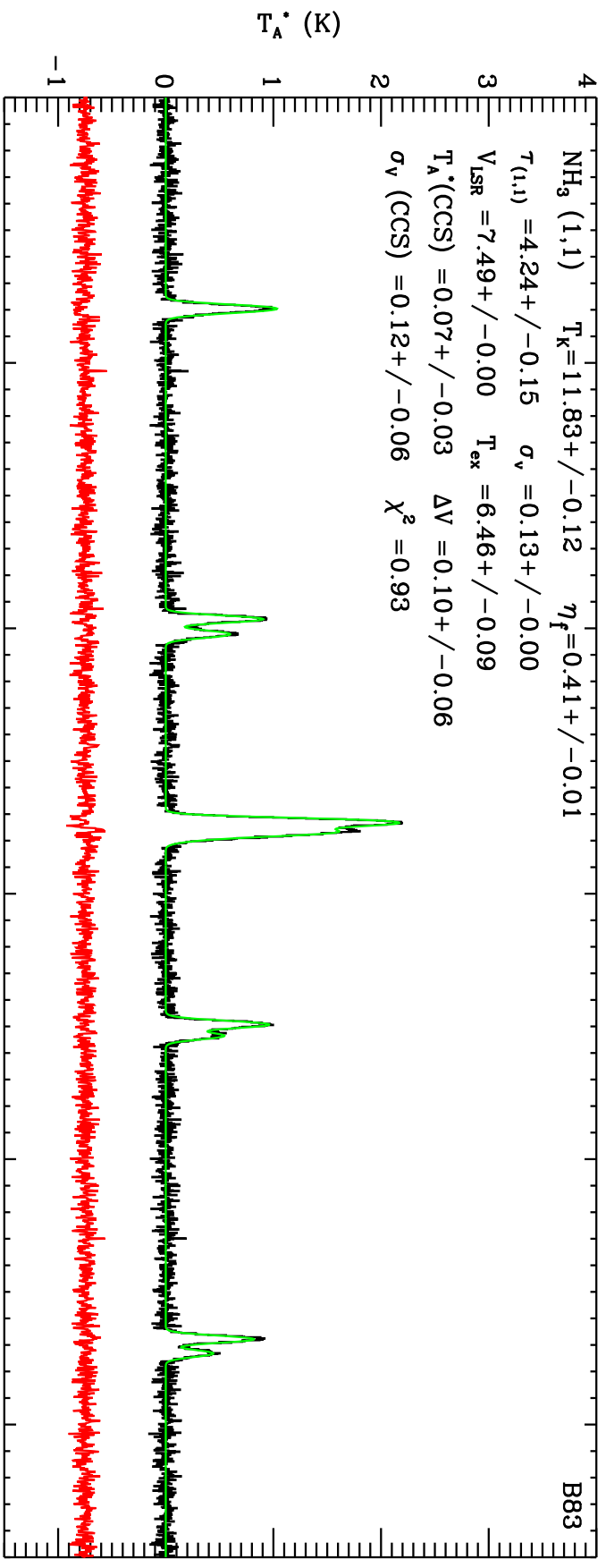


$\text{NH}_3(1,1)$ $T_K = 12.29 \pm 0.12$ $\eta_f = 0.34 \pm 0.01$
 $T_{(1,1)} = 2.36 \pm 0.10$ $\sigma_v = 0.29 \pm 0.00$
 $V_{\text{LSR}} = 7.15 \pm 0.00$ $T_{\text{ex}} = 5.96 \pm 0.09$
 $T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = 0.04 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.22 \pm 0.00$ $\chi^2 = 2.26$

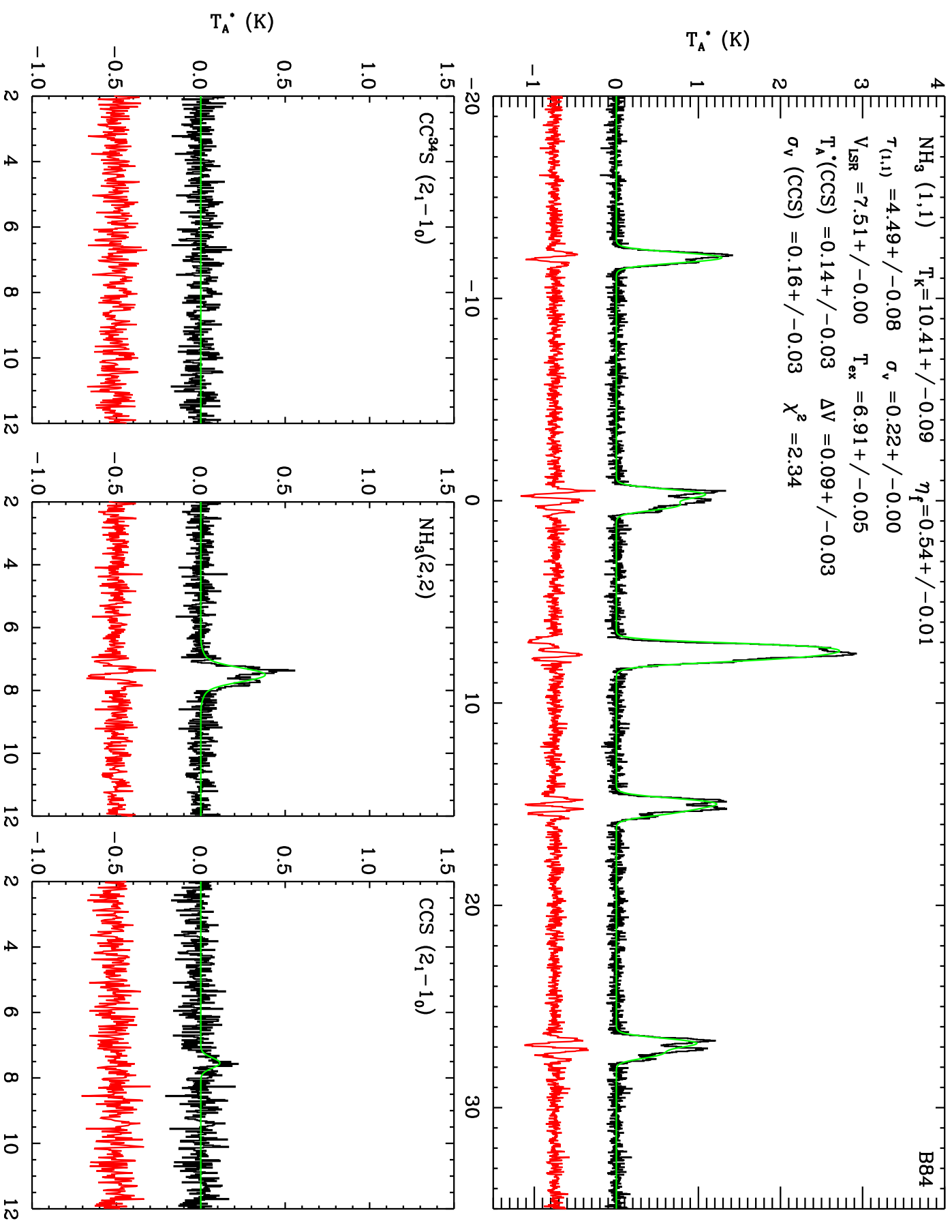


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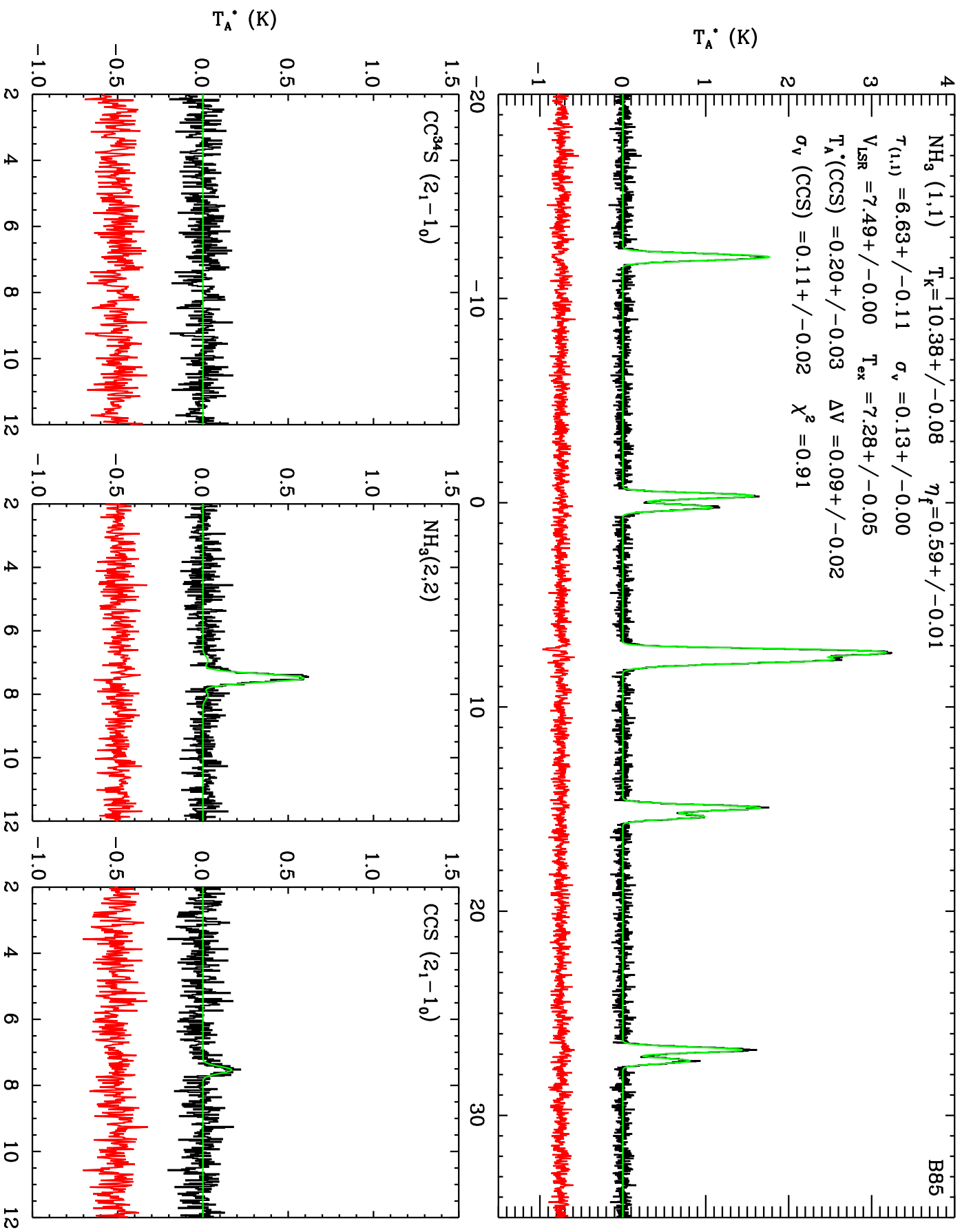
$\text{NH}_3(1,1)$ $T_K=11.83+/-0.12$ $\eta_f=0.41+/-0.01$
 $T_{(1,1)}=4.24+/-0.15$ $\sigma_v=0.13+/-0.00$
 $V_{\text{LSR}}=7.49+/-0.00$ $T_{\text{ex}}=6.46+/-0.09$
 $T_A^*(\text{CCS})=0.07+/-0.03$ $\Delta V=0.10+/-0.06$
 $\sigma_v(\text{CCS})=0.12+/-0.06$ $\chi^2=0.93$



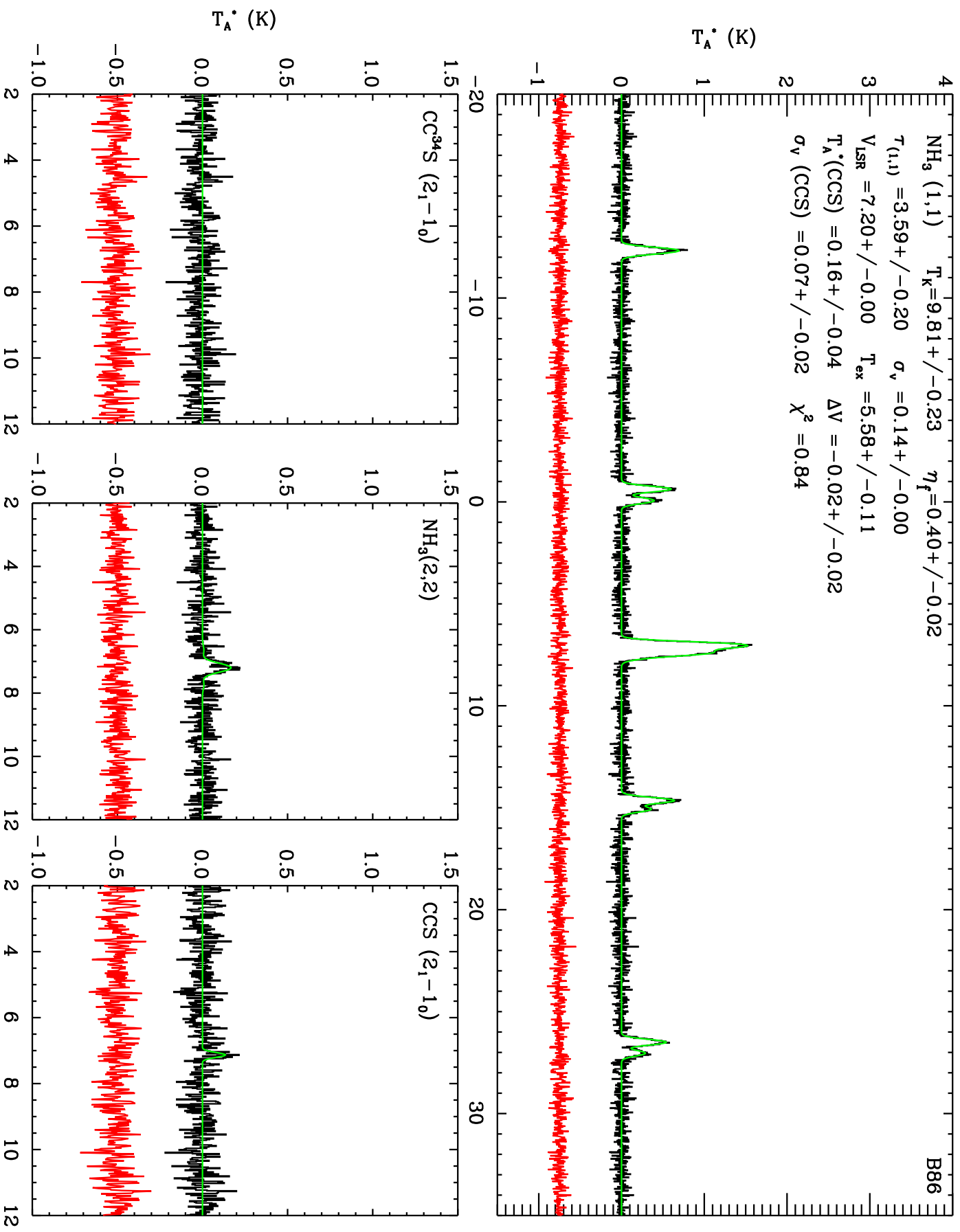
$\text{NH}_3(1,1)$ $T_K = 10.41 \pm 0.09$ $\eta_f = 0.54 \pm 0.01$
 $T_{(1,1)} = 4.49 \pm 0.08$ $\sigma_v = 0.22 \pm 0.00$
 $V_{\text{LSR}} = 7.51 \pm 0.00$ $T_{\text{ex}} = 6.91 \pm 0.05$
 $T_A^*(\text{CCS}) = 0.14 \pm 0.03$ $\Delta V = 0.09 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.03$ $\chi^2 = 2.34$



$\text{NH}_3(1,1)$ $T_K = 10.38 \pm 0.08$ $\eta_f = 0.59 \pm 0.01$
 $T_{(1,1)} = 6.63 \pm 0.11$ $\sigma_v = 0.13 \pm 0.00$
 $V_{\text{LSR}} = 7.49 \pm 0.00$ $T_{\text{ex}} = 7.28 \pm 0.05$
 $T_A^*(\text{CCS}) = 0.20 \pm 0.03$ $\Delta V = 0.09 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.11 \pm 0.02$ $\chi^2 = 0.91$

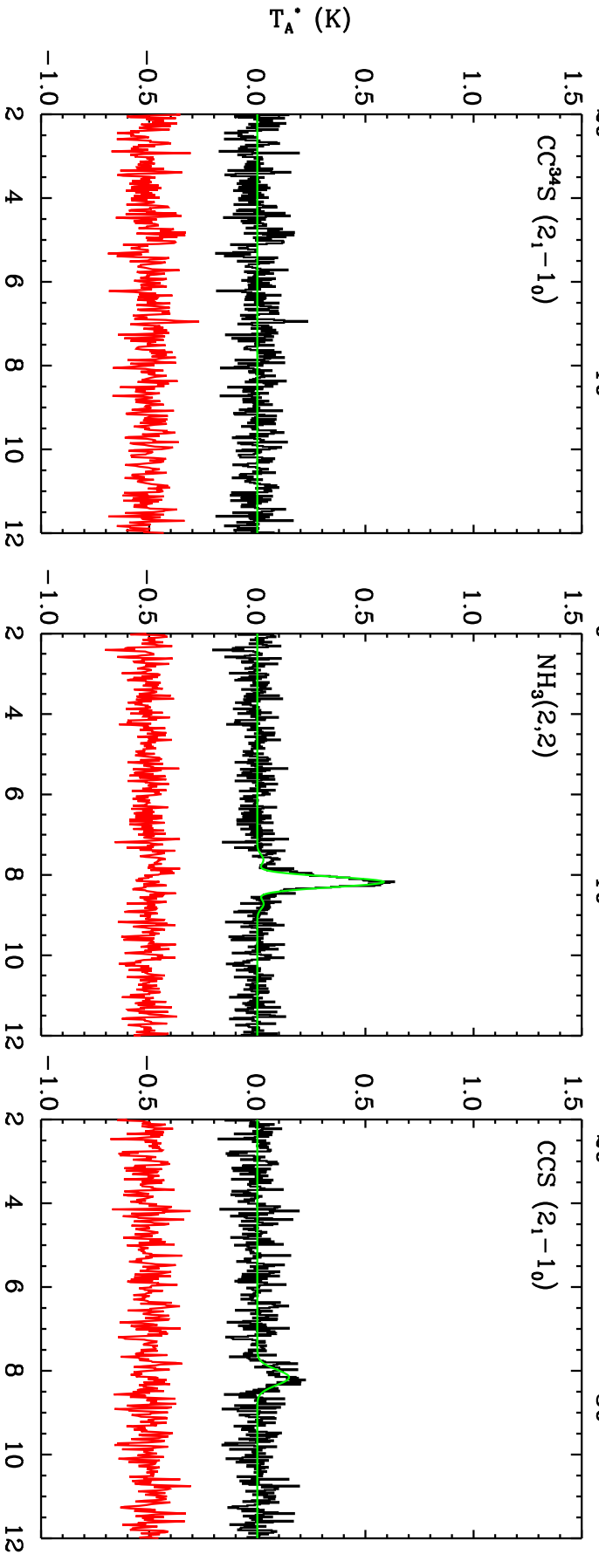
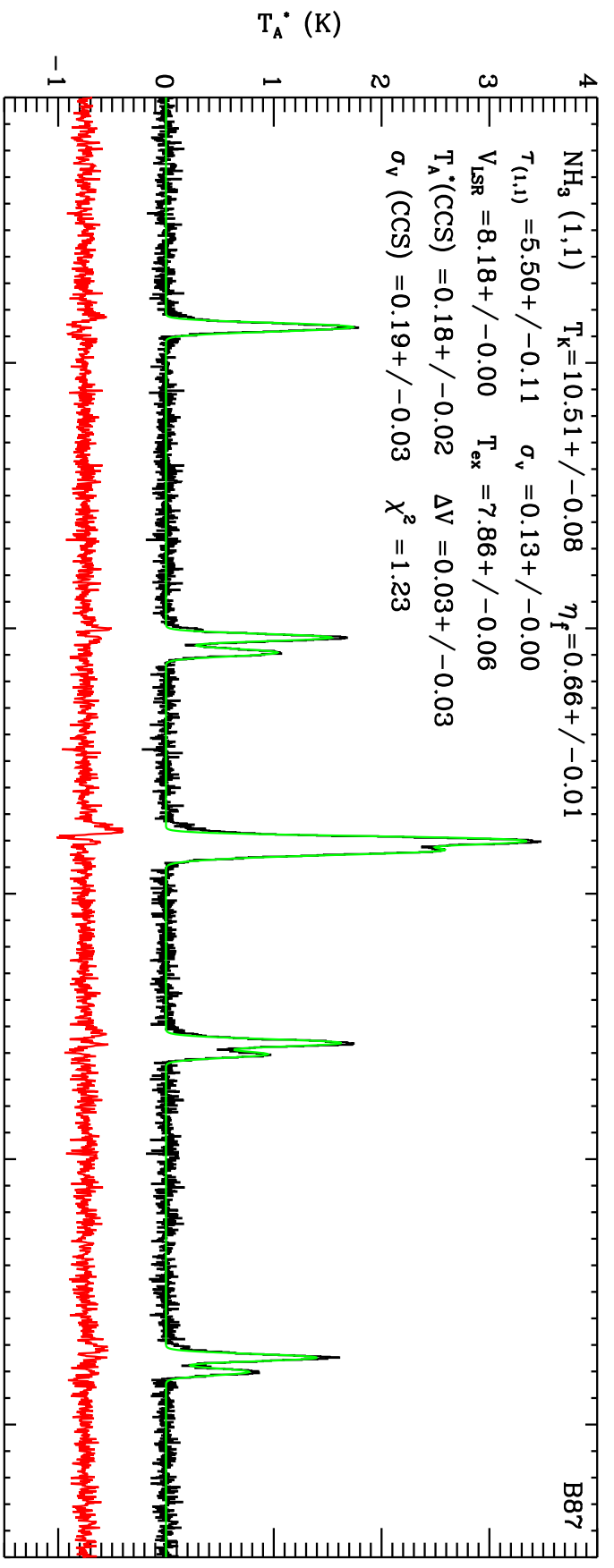


$\text{NH}_3(1,1)$ $T_K = 9.81 \pm 0.23$ $\eta_f = 0.40 \pm 0.02$
 $T_{(1,1)} = 3.59 \pm 0.20$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 7.20 \pm 0.00$ $T_{\text{ex}} = 5.58 \pm 0.11$
 $T_A^*(\text{CCS}) = 0.16 \pm 0.04$ $\Delta V = -0.02 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.07 \pm 0.02$ $\chi^2 = 0.84$

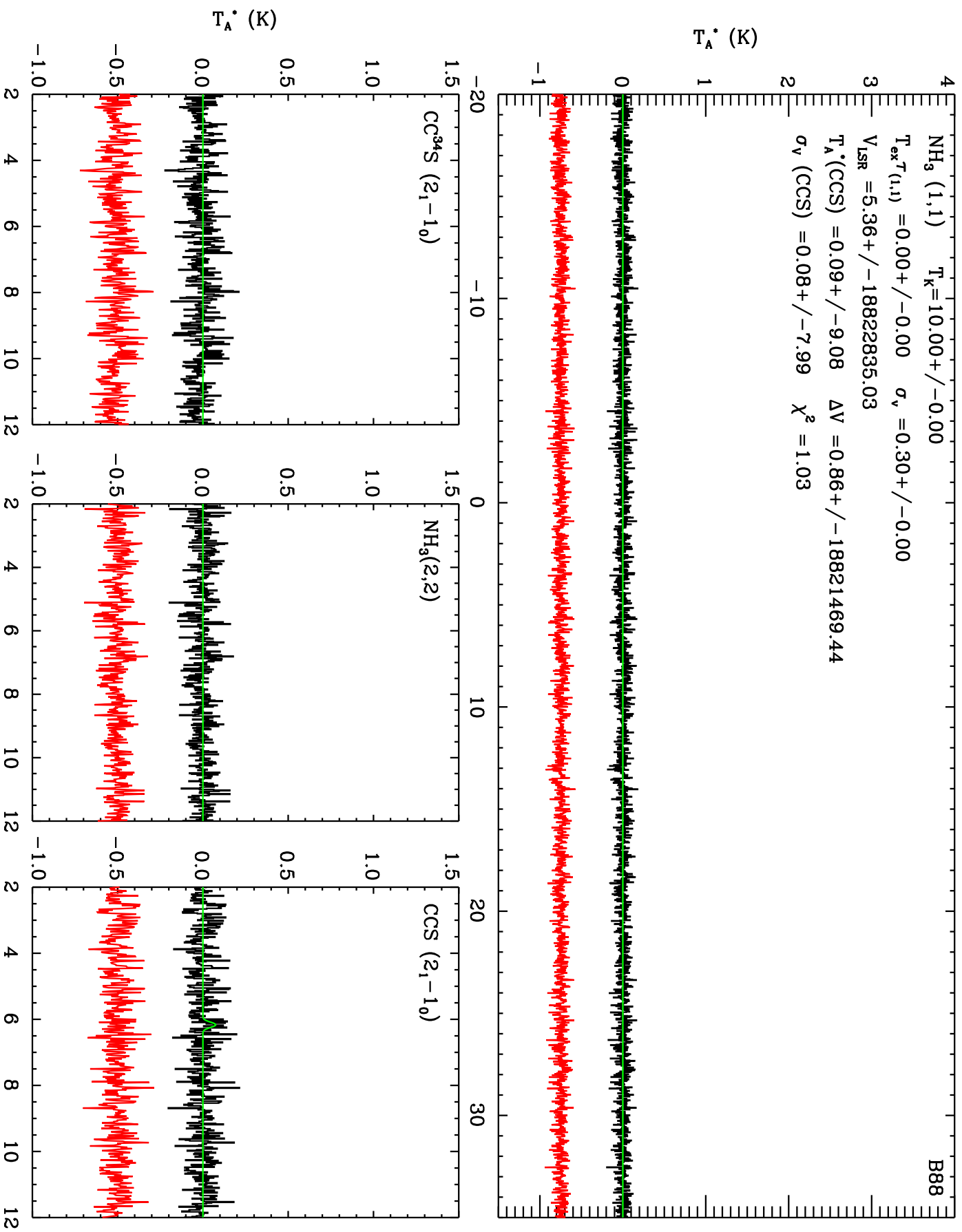


$\text{NH}_3(1,1)$ $T_K = 10.51 \pm 0.08$ $\eta_f = 0.66 \pm 0.01$
 $T_{(1,1)} = 5.50 \pm 0.11$ $\sigma_v = 0.13 \pm 0.00$
 $V_{\text{LSR}} = 8.18 \pm 0.00$ $T_{\text{ex}} = 7.86 \pm 0.06$
 $T_A^*(\text{CCS}) = 0.18 \pm 0.02$ $\Delta V = 0.03 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.19 \pm 0.03$ $\chi^2 = 1.23$

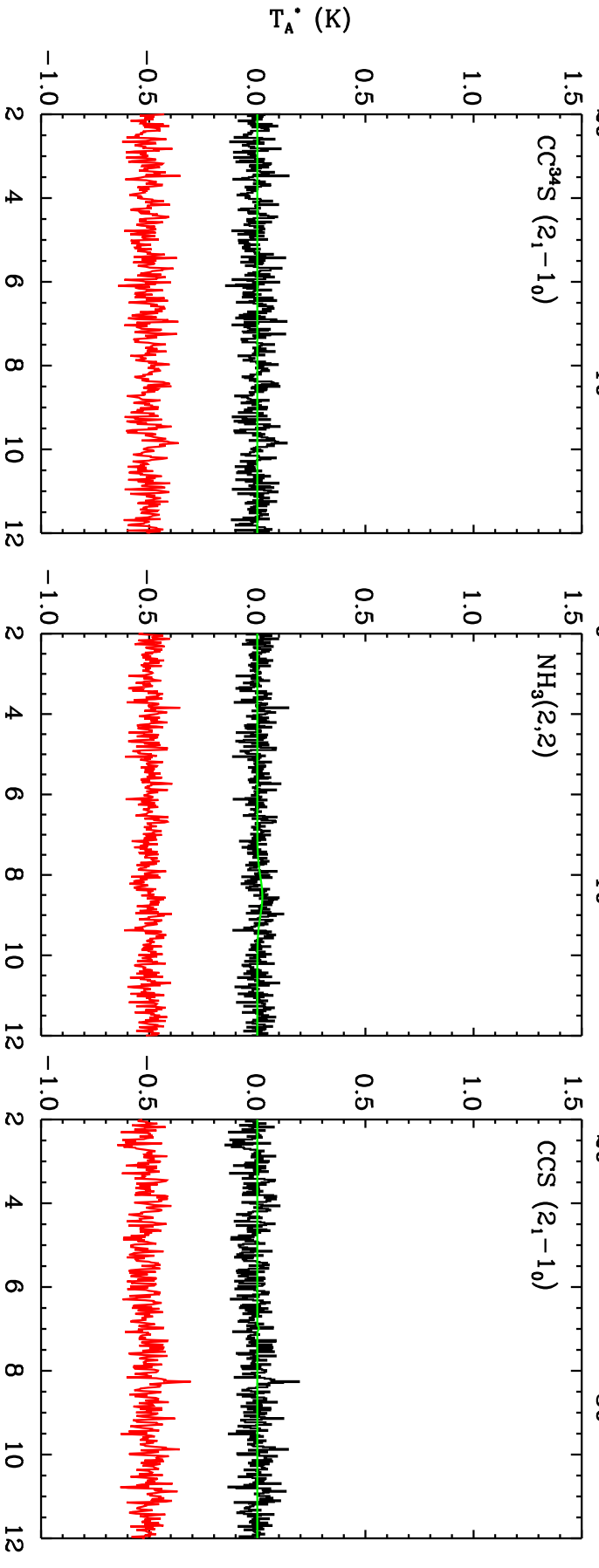
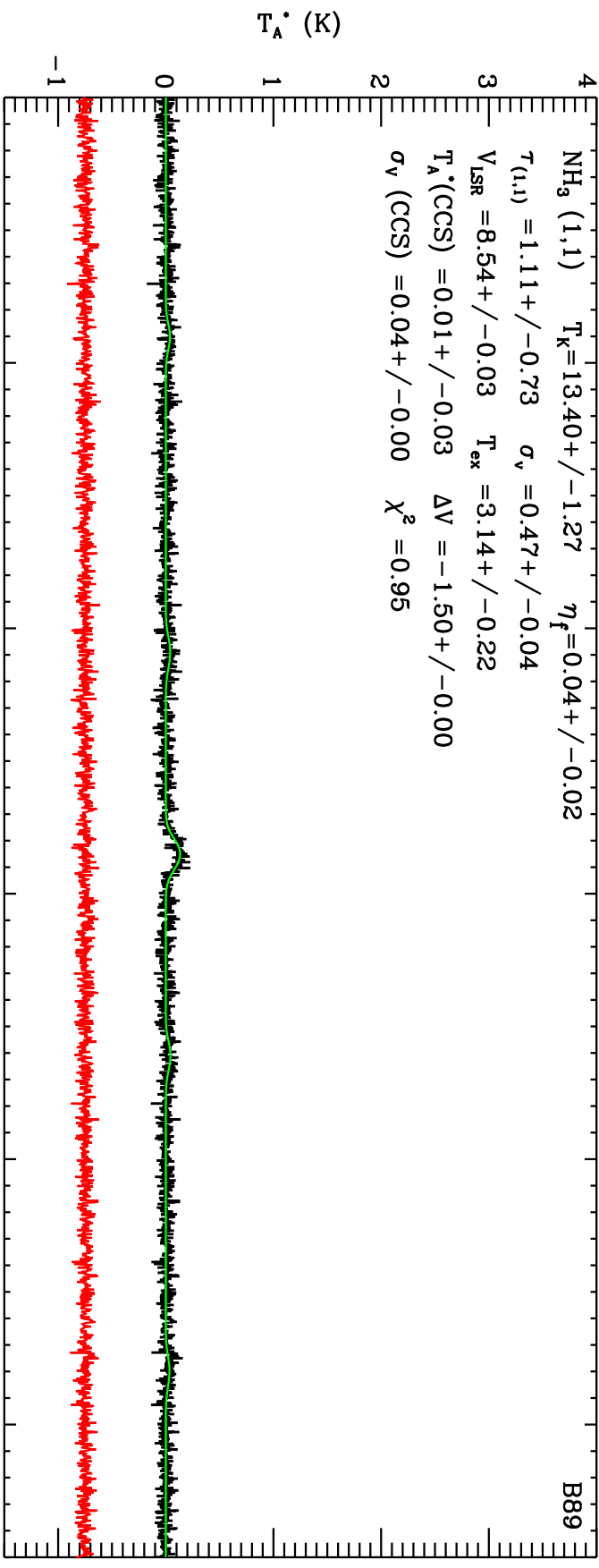
B87



$\text{NH}_3(1,1)$ $T_K = 10.00 \pm 0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.00 \pm 0.00$ $\sigma_v = 0.30 \pm 0.00$
 $V_{\text{LSR}} = 5.36 \pm 18822835.03$
 $T_A^*(\text{CCS}) = 0.09 \pm 9.08$ $\Delta V = 0.86 \pm 18821469.44$
 $\sigma_v(\text{CCS}) = 0.08 \pm 7.99$ $\chi^2 = 1.03$

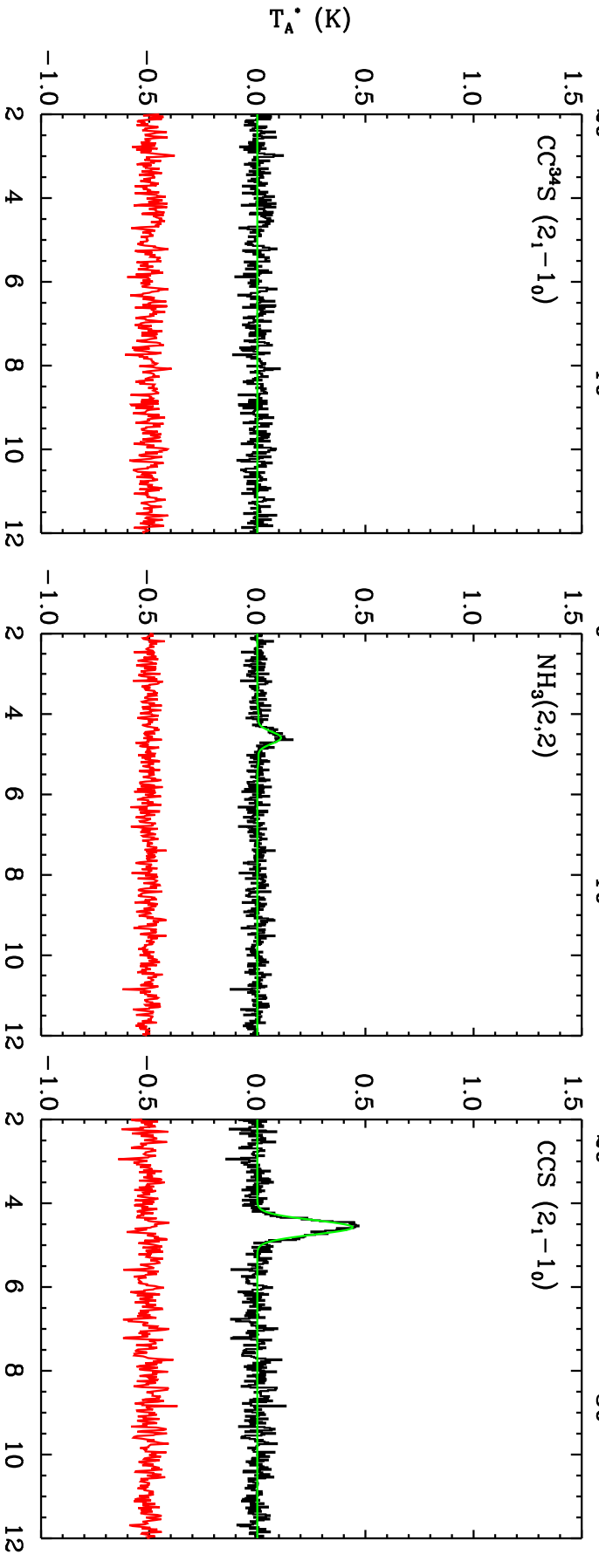
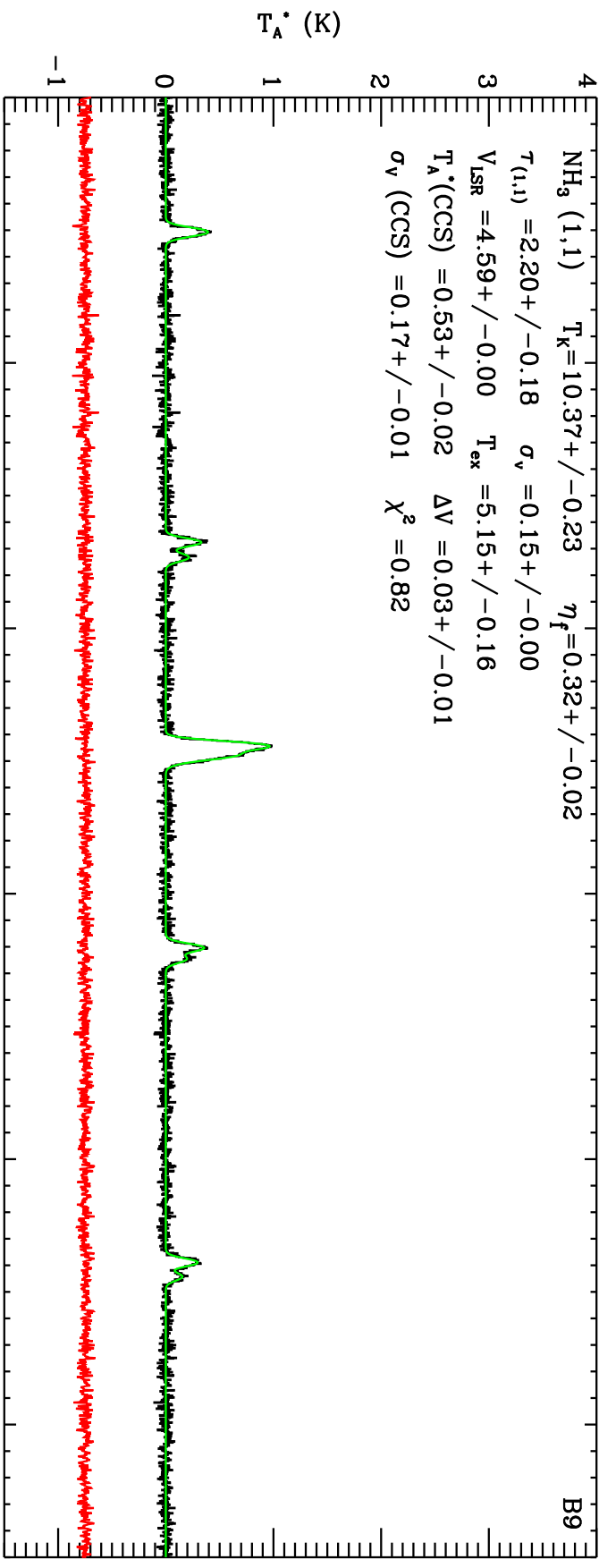


$\text{NH}_3(1,1)$ $T_K = 13.40 \pm 1.27$ $\eta_f = 0.04 \pm 0.02$
 $T_{(1,1)} = 1.11 \pm 0.73$ $\sigma_v = 0.47 \pm 0.04$
 $V_{\text{LSR}} = 8.54 \pm 0.03$ $T_{\text{ex}} = 3.14 \pm 0.22$
 $T_A^*(\text{CCS}) = 0.01 \pm 0.03$ $\Delta V = -1.50 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 0.95$



$\text{NH}_3(1,1)$ $T_K = 10.37 \pm 0.23$ $\eta_f = 0.32 \pm 0.02$
 $T_{(1,1)} = 2.20 \pm 0.18$ $\sigma_v = 0.15 \pm 0.00$
 $V_{\text{LSR}} = 4.59 \pm 0.00$ $T_{\text{ex}} = 5.15 \pm 0.16$
 $T_A^*(\text{CCS}) = 0.53 \pm 0.02$ $\Delta V = 0.03 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.17 \pm 0.01$ $\chi^2 = 0.82$

B9



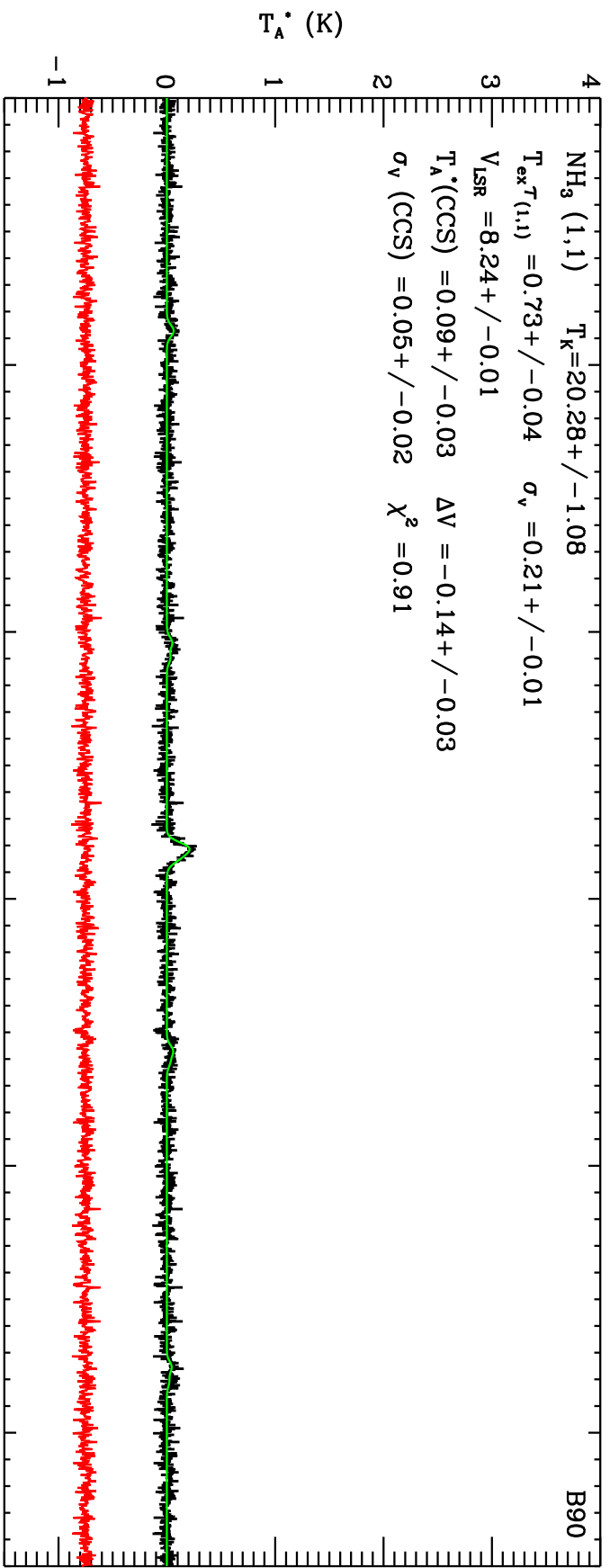
NH₃ (1,1) T_K=20.28+/-1.08 B90

T_{ex}^{T(1,1)} = 0.73+/-0.04 σ_v = 0.21+/-0.01

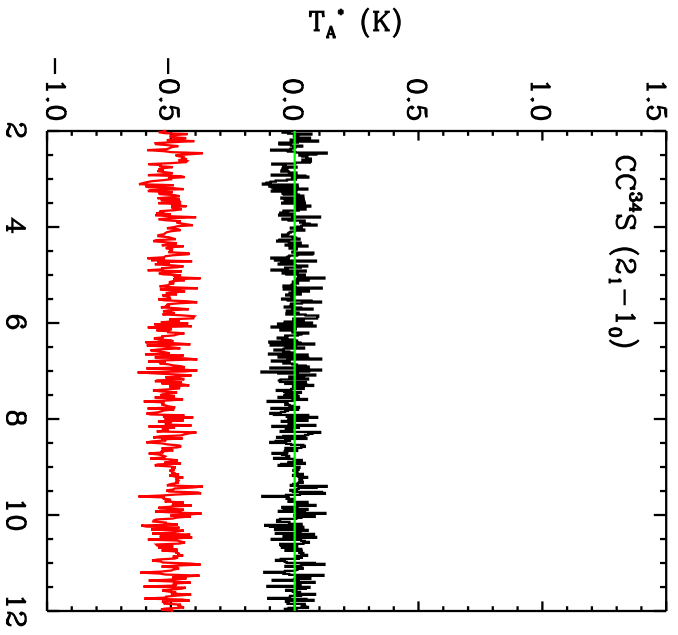
V_{LSR} = 8.24+/-0.01

T_A[∗](CCS) = 0.09+/-0.03 ΔV = -0.14+/-0.03

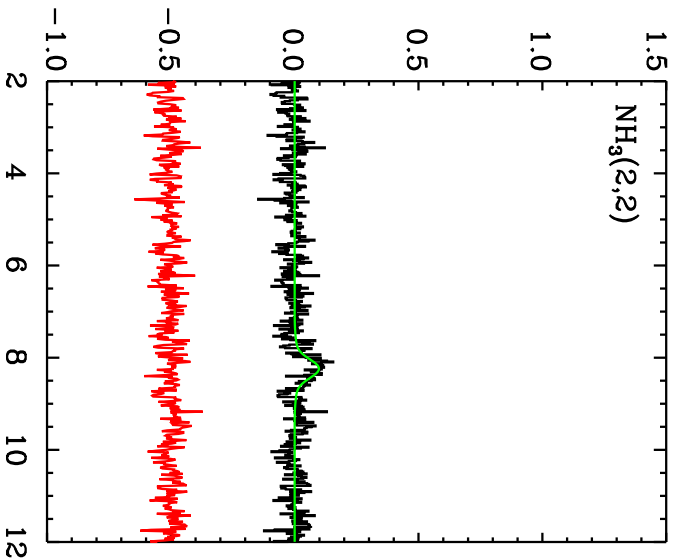
σ_v (CCS) = 0.05+/-0.02 χ² = 0.91



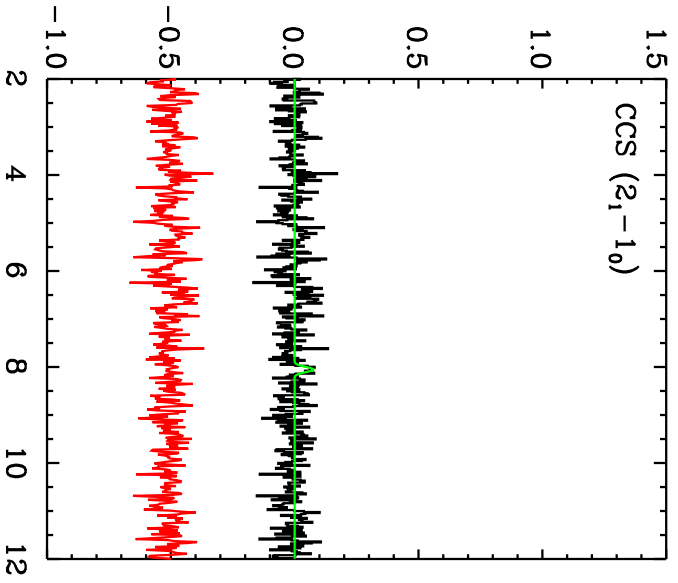
CC³⁴S (2₁-1₀)



NH₃(2,2)

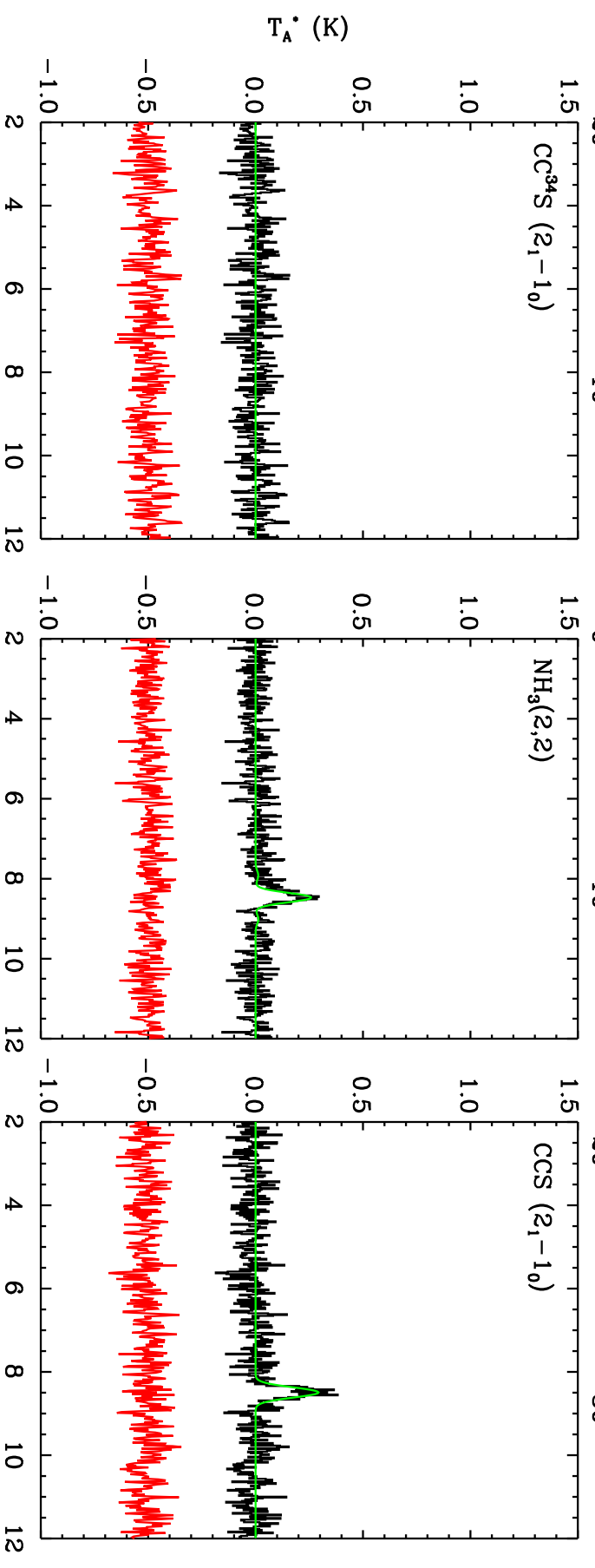
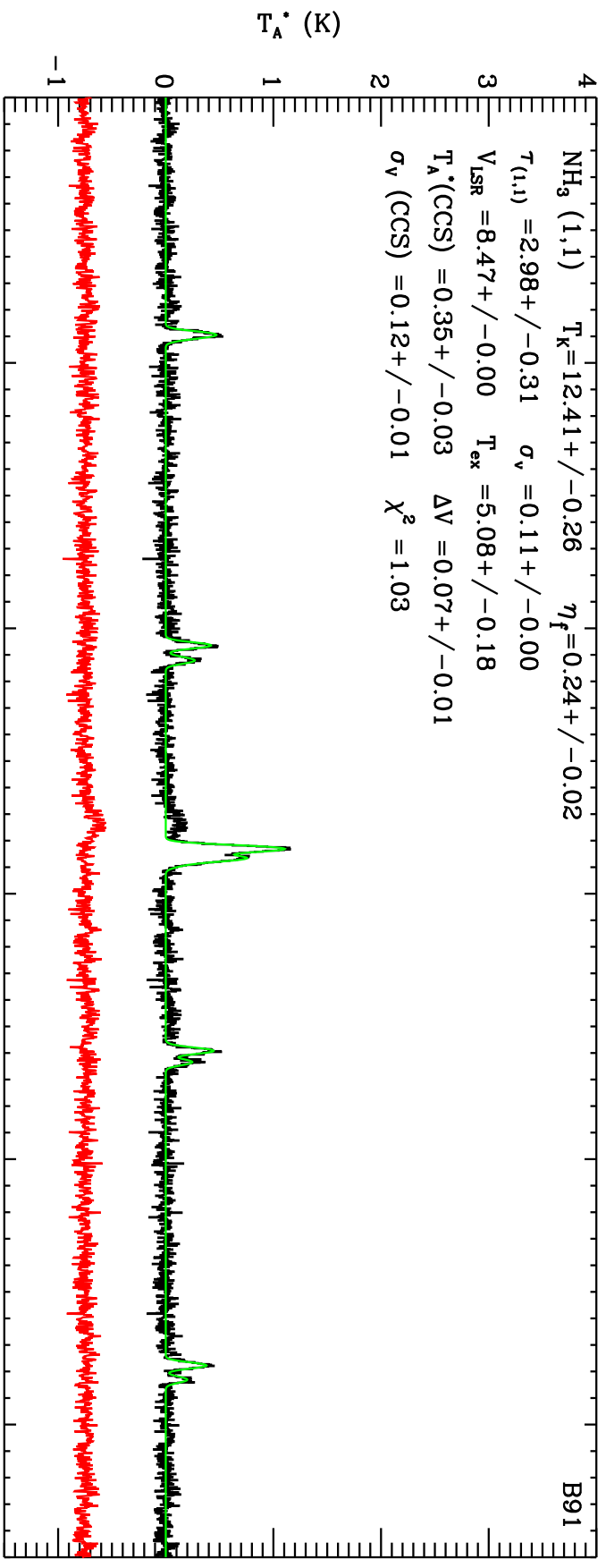


CCS (2₁-1₀)



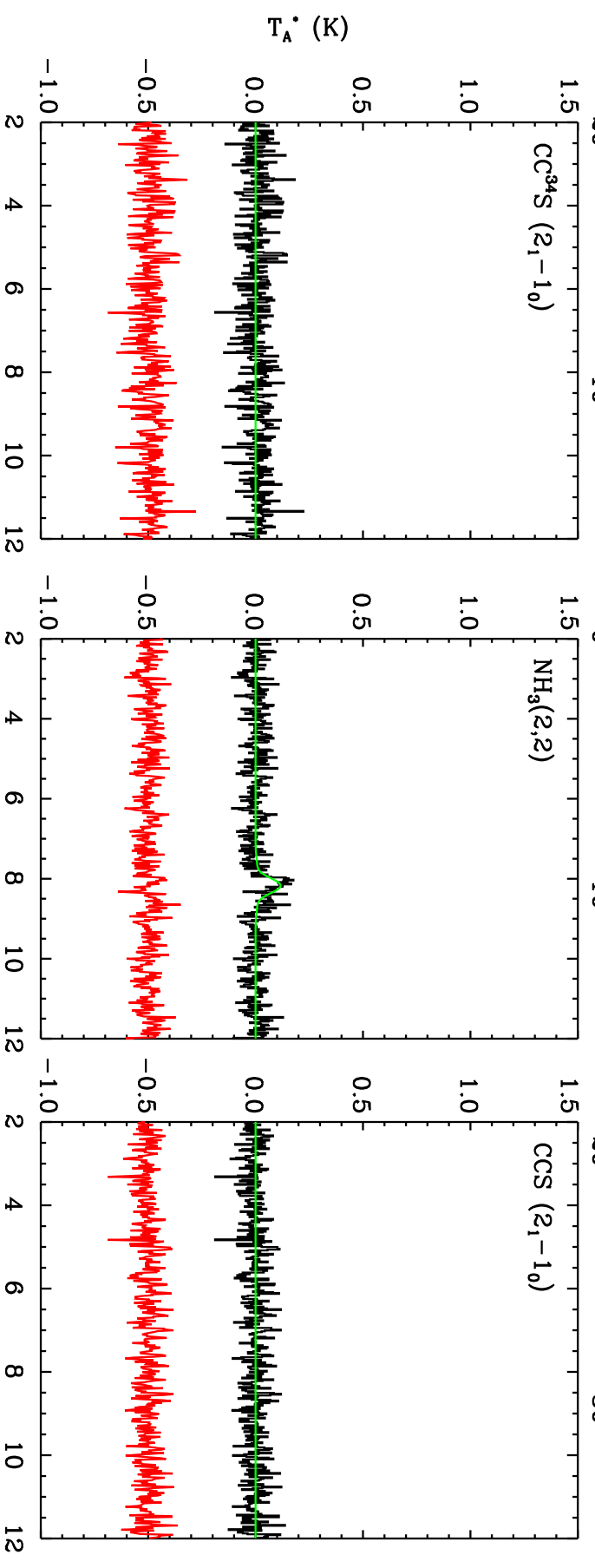
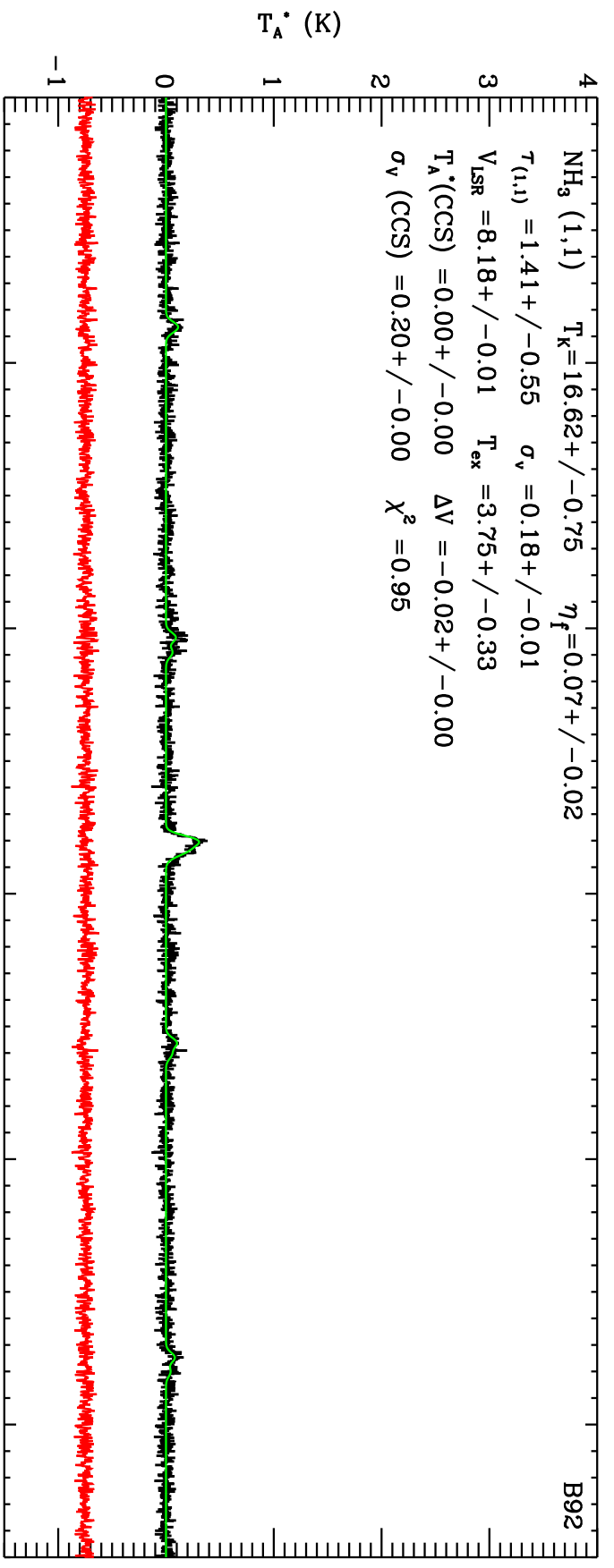
B91

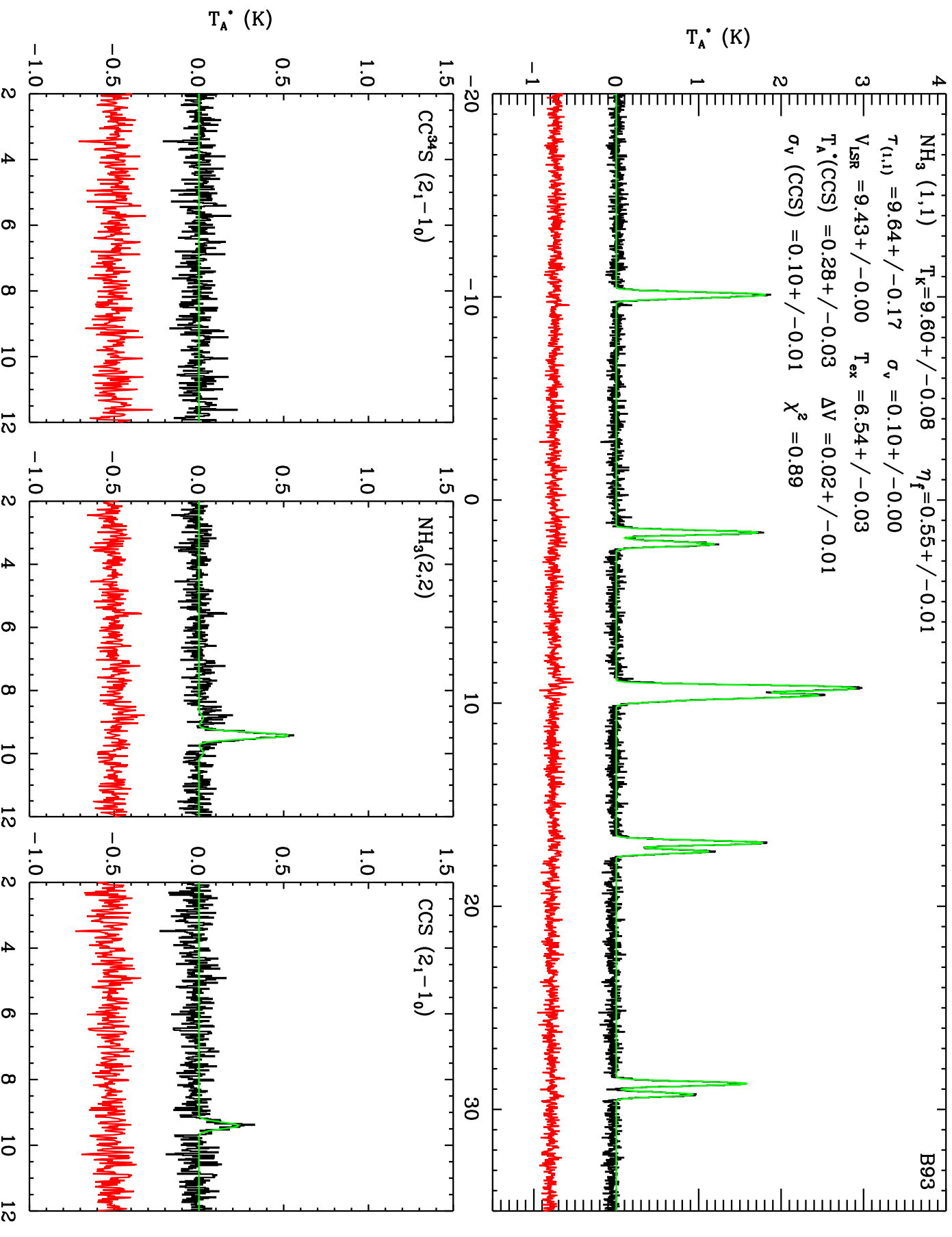
$\text{NH}_3(1,1)$ $T_K = 12.41 \pm 0.26$ $\eta_f = 0.24 \pm 0.02$
 $T_{(1,1)} = 2.98 \pm 0.31$ $\sigma_v = 0.11 \pm 0.00$
 $V_{\text{LSR}} = 8.47 \pm 0.00$ $T_{\text{ex}} = 5.08 \pm 0.18$
 $T_A^*(\text{CCS}) = 0.35 \pm 0.03$ $\Delta V = 0.07 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.12 \pm 0.01$ $\chi^2 = 1.03$



$\text{NH}_3(1,1)$ $T_K = 16.62 \pm 0.75$ $\eta_f = 0.07 \pm 0.02$
 $T_{(1,1)} = 1.41 \pm 0.55$ $\sigma_v = 0.18 \pm 0.01$
 $V_{\text{LSR}} = 8.18 \pm 0.01$ $T_{\text{ex}} = 3.75 \pm 0.33$
 $T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.02 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.20 \pm 0.00$ $\chi^2 = 0.95$

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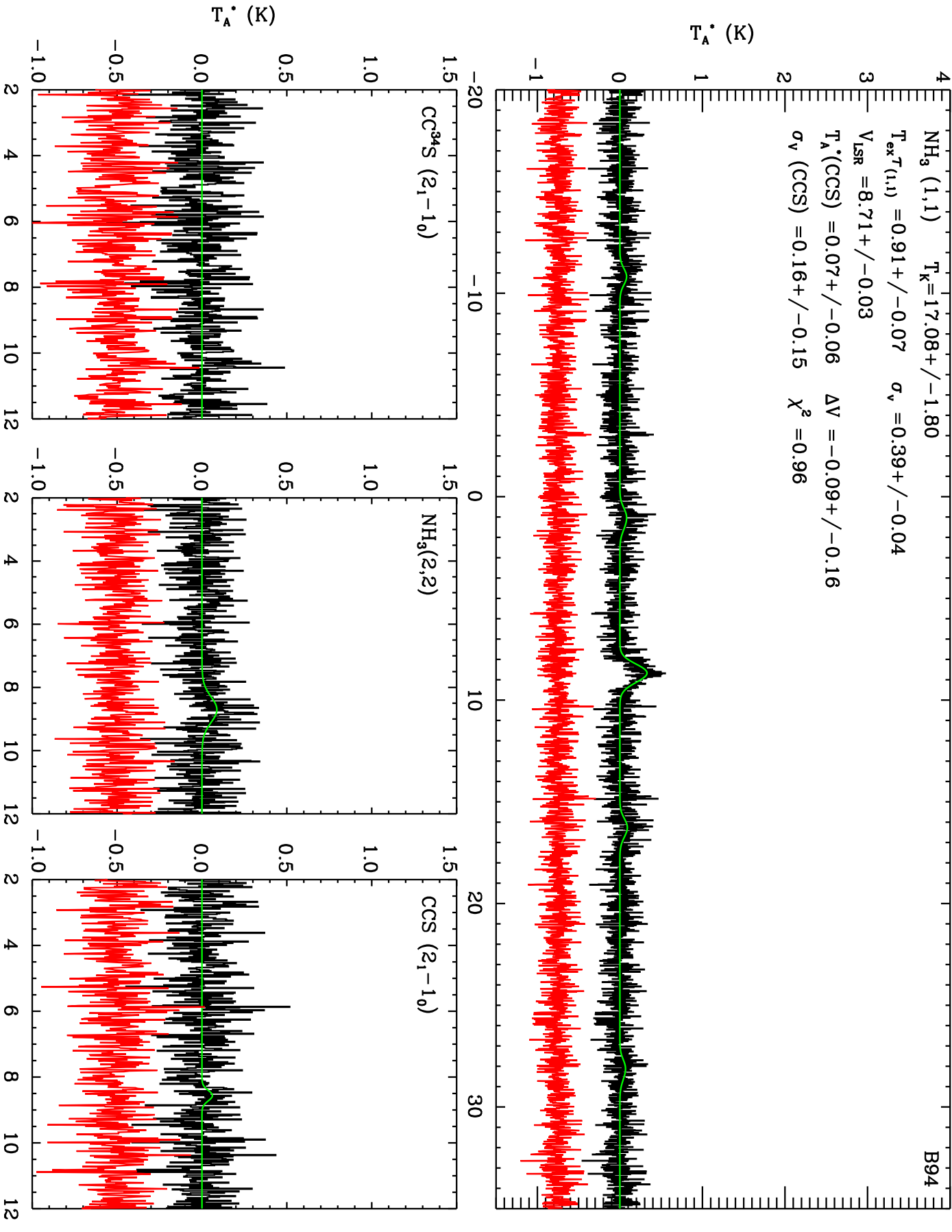
NH₃ (1,1) T_K=17.08+/-1.80

T_{ex}^{T(1,1)} = 0.91+/-0.07 σ_v = 0.39+/-0.04

V_{LSR} = 8.71+/-0.03

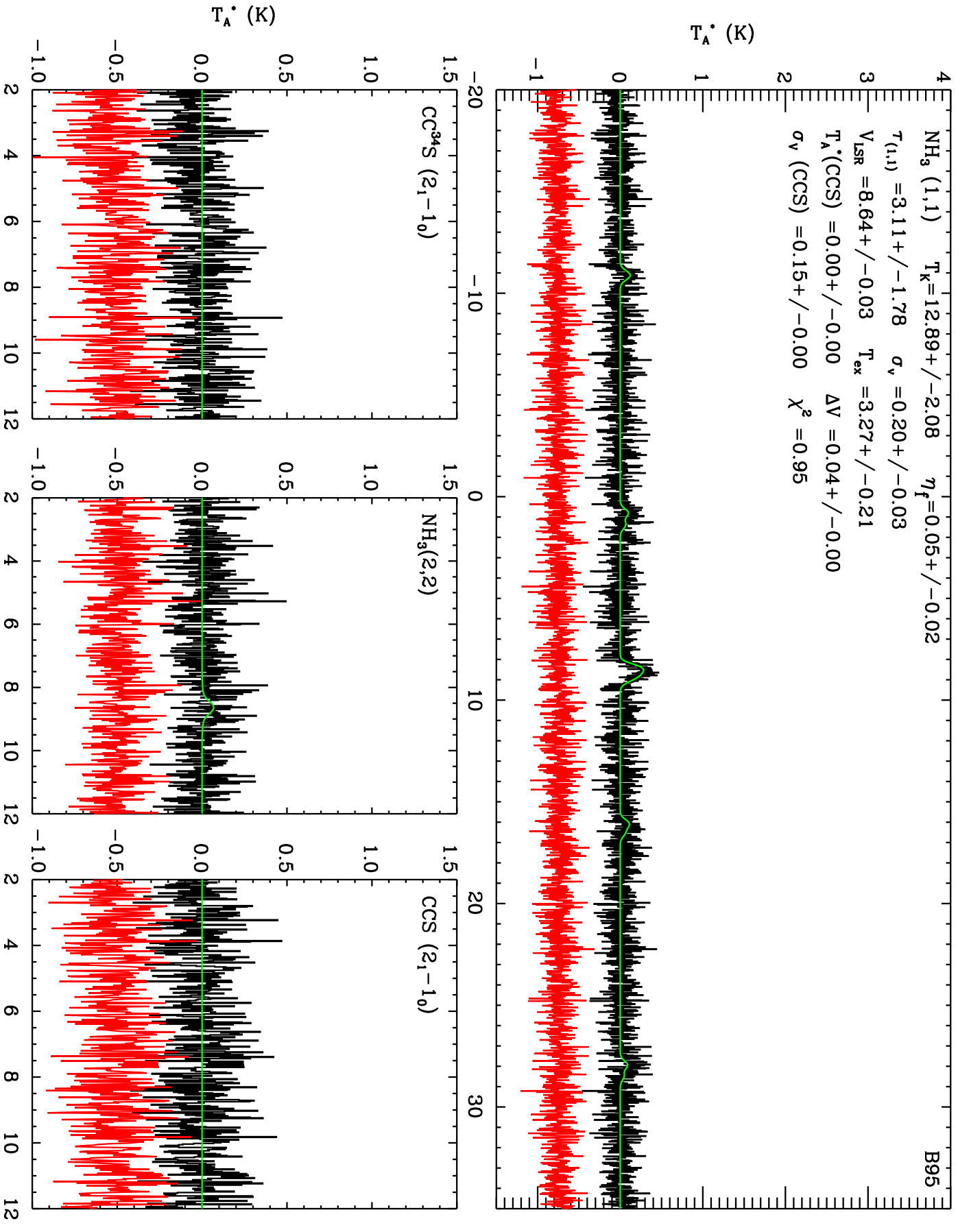
T_A^{*}(CCS) = 0.07+/-0.06 ΔV = -0.09+/-0.16

σ_v (CCS) = 0.16+/-0.15 χ² = 0.96

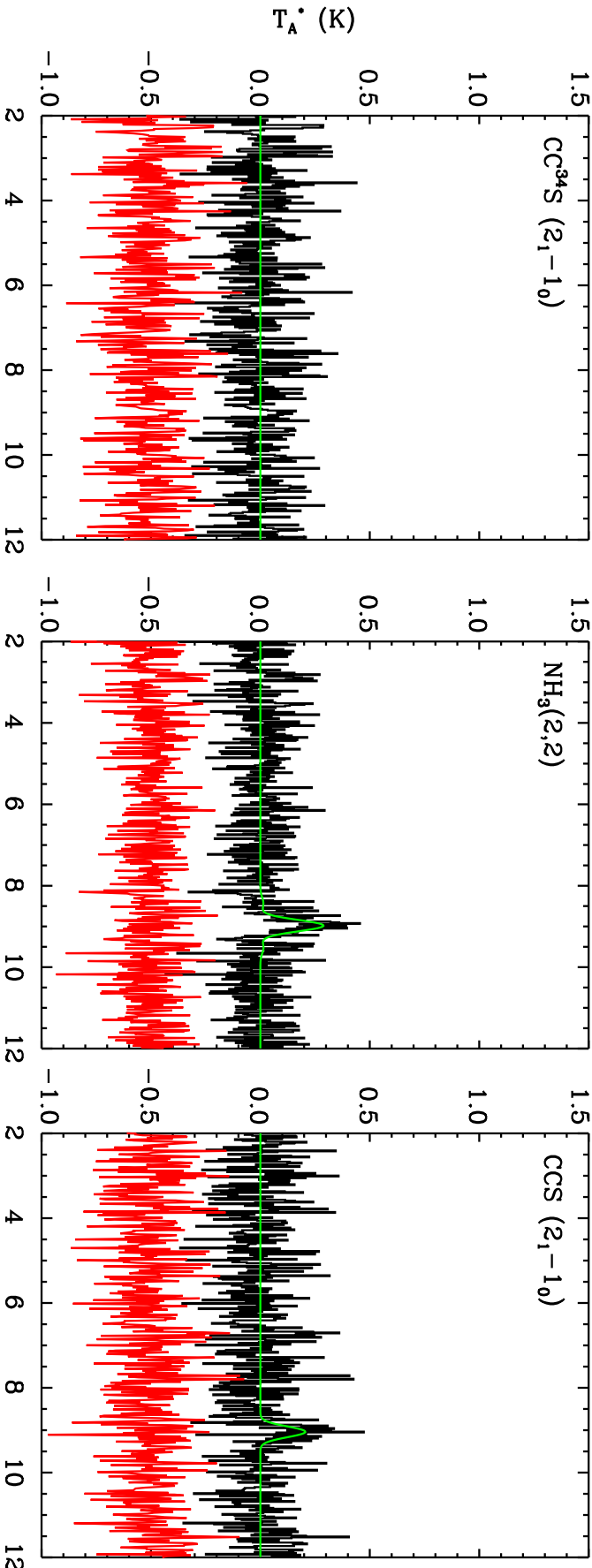
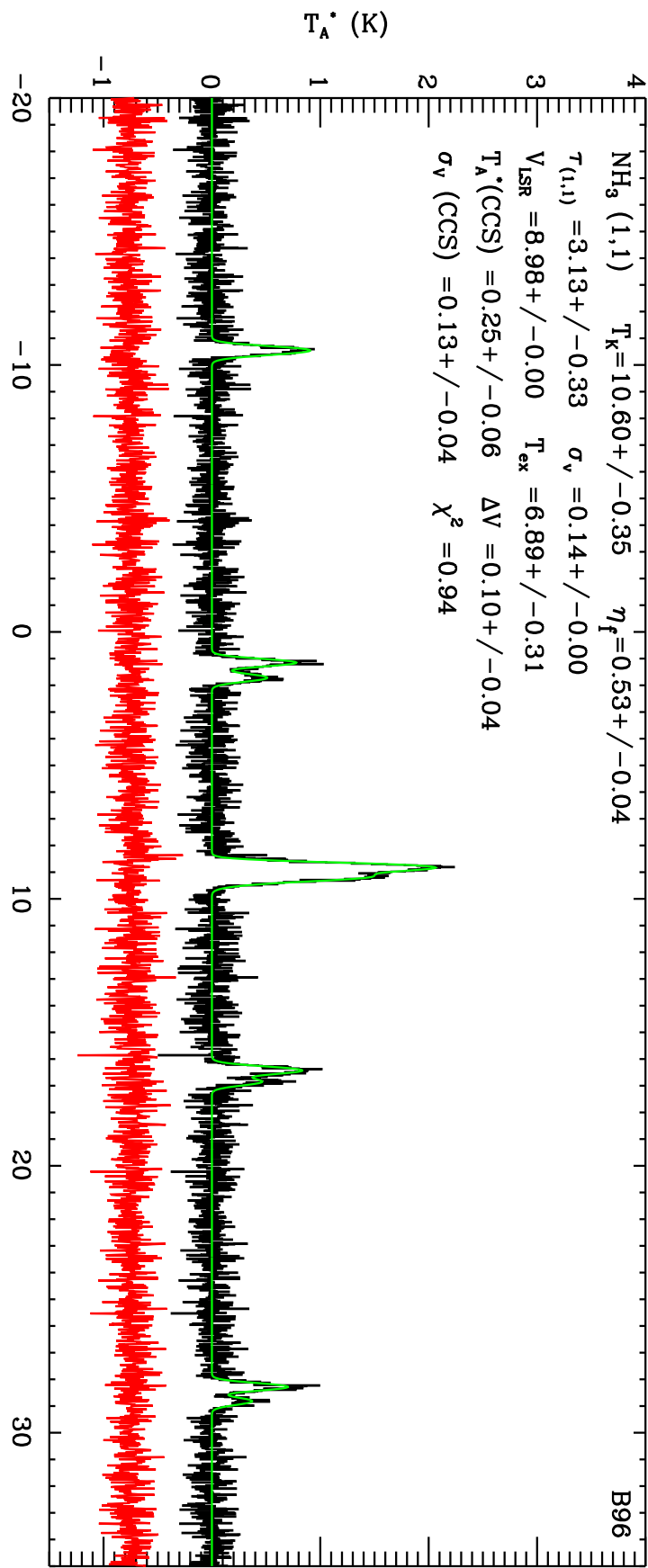


B95

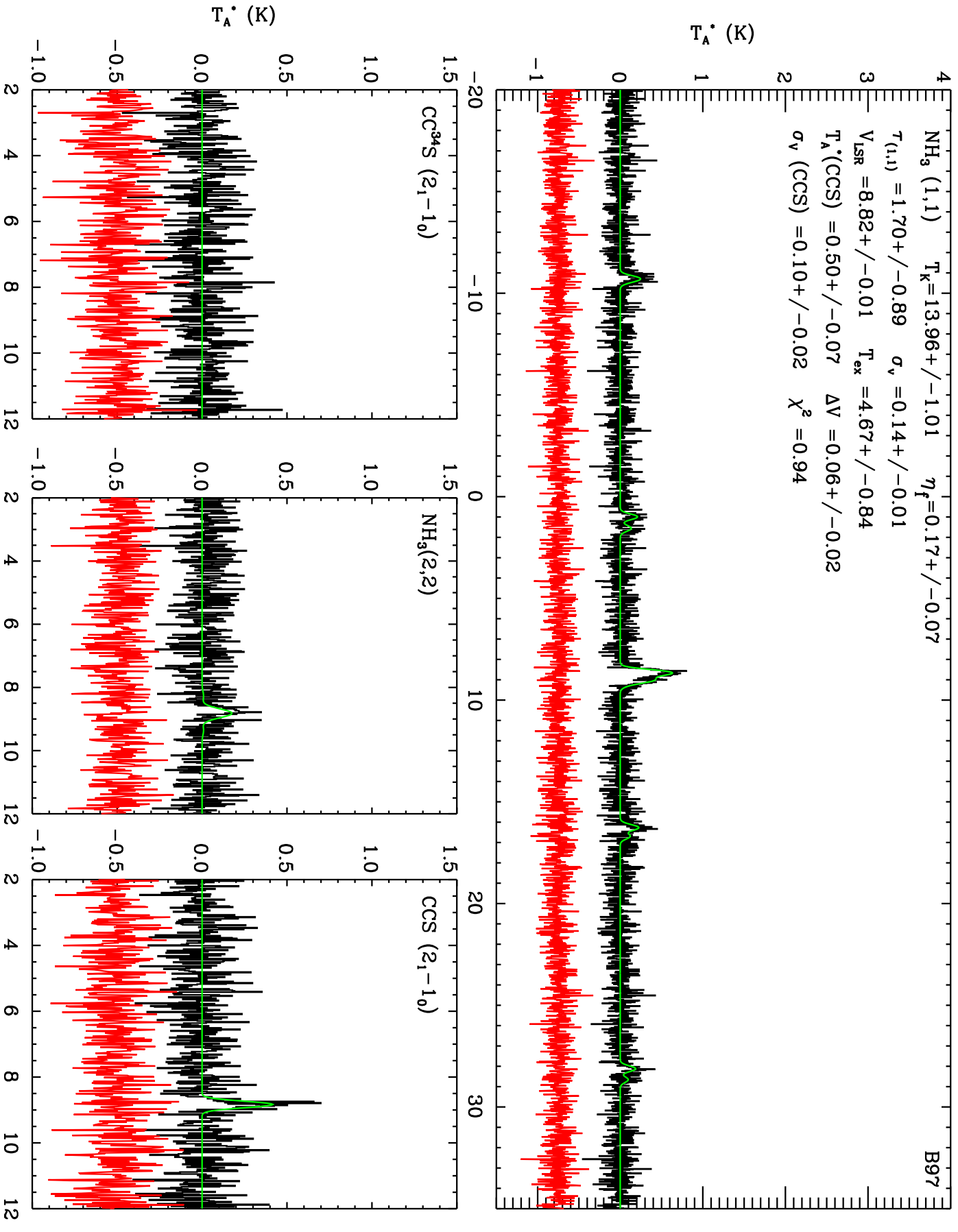
$\text{NH}_3(1,1)$ $T_K = 12.89 + / - 2.08$ $\eta_f = 0.05 + / - 0.02$
 $T_{(1,1)} = 3.11 + / - 1.78$ $\sigma_v = 0.20 + / - 0.03$
 $V_{\text{LSR}} = 8.64 + / - 0.03$ $T_{\text{ex}} = 3.27 + / - 0.21$
 $T_A^*(\text{CCS}) = 0.00 + / - 0.00$ $\Delta V = 0.04 + / - 0.00$
 $\sigma_v(\text{CCS}) = 0.15 + / - 0.00$ $\chi^2 = 0.95$

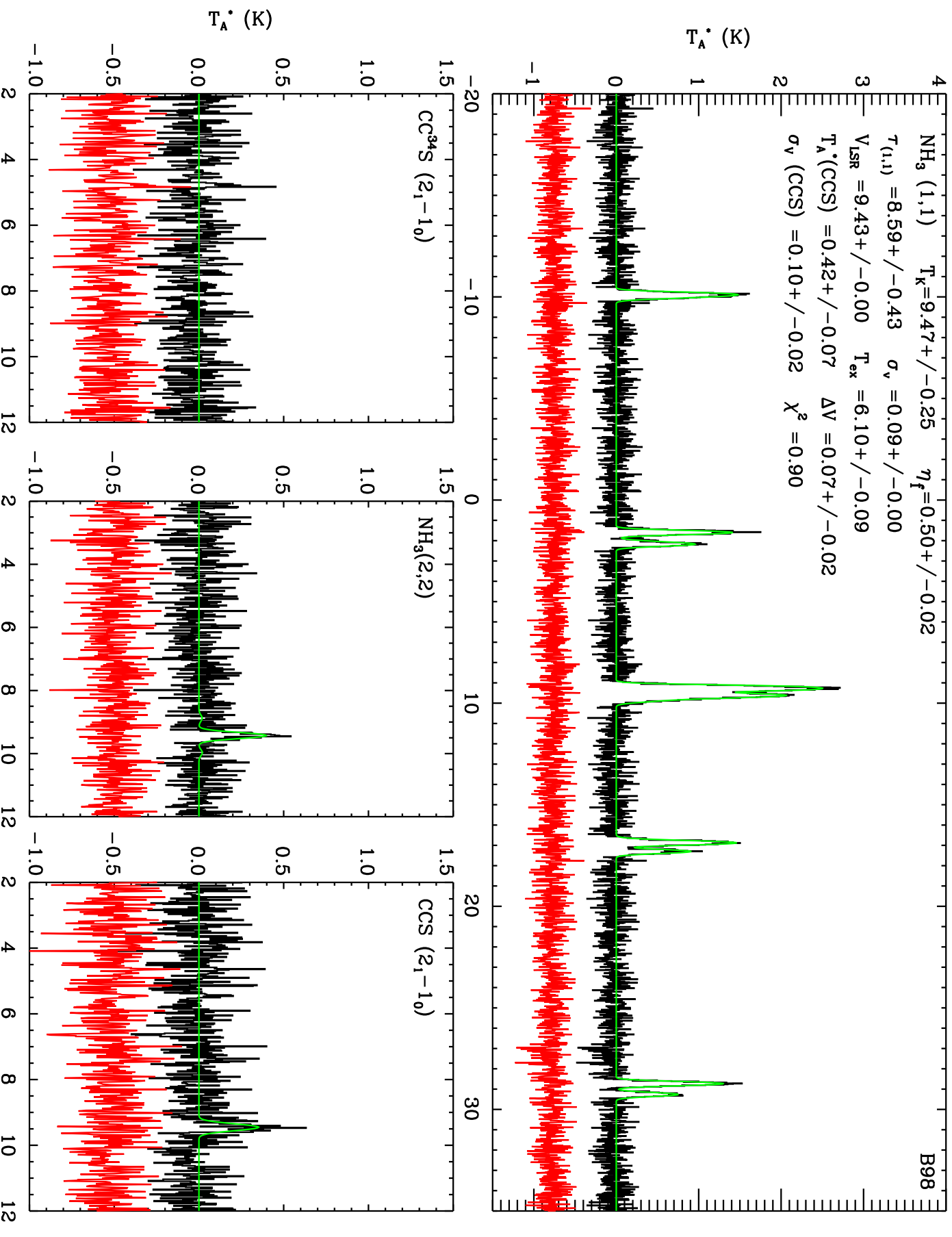


$\text{NH}_3(1,1)$ $T_K = 10.60 \pm 0.35$ $\eta_f = 0.53 \pm 0.04$
 $T_{(1,1)} = 3.13 \pm 0.33$ $\sigma_v = 0.14 \pm 0.00$
 $V_{\text{LSR}} = 8.98 \pm 0.00$ $T_{\text{ex}} = 6.89 \pm 0.31$
 $T_A^*(\text{CCS}) = 0.25 \pm 0.06$ $\Delta V = 0.10 \pm 0.04$
 $\sigma_v(\text{CCS}) = 0.13 \pm 0.04$ $\chi^2 = 0.94$

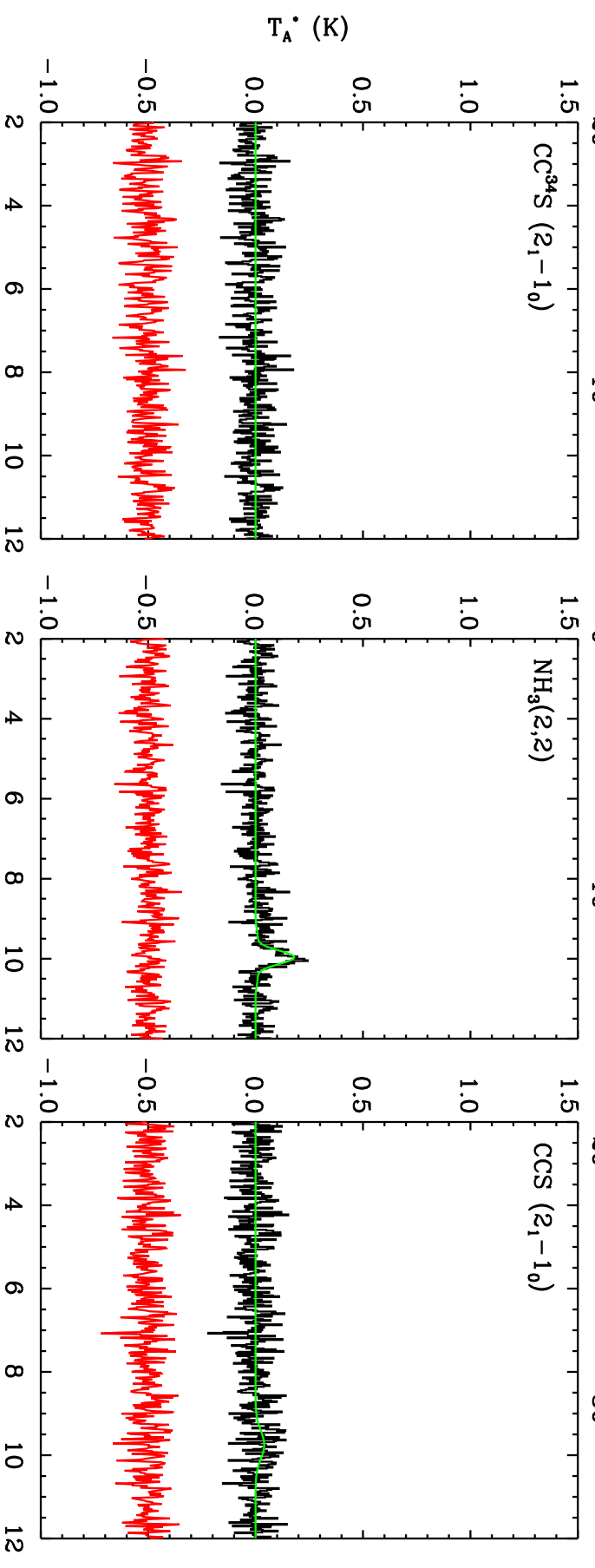
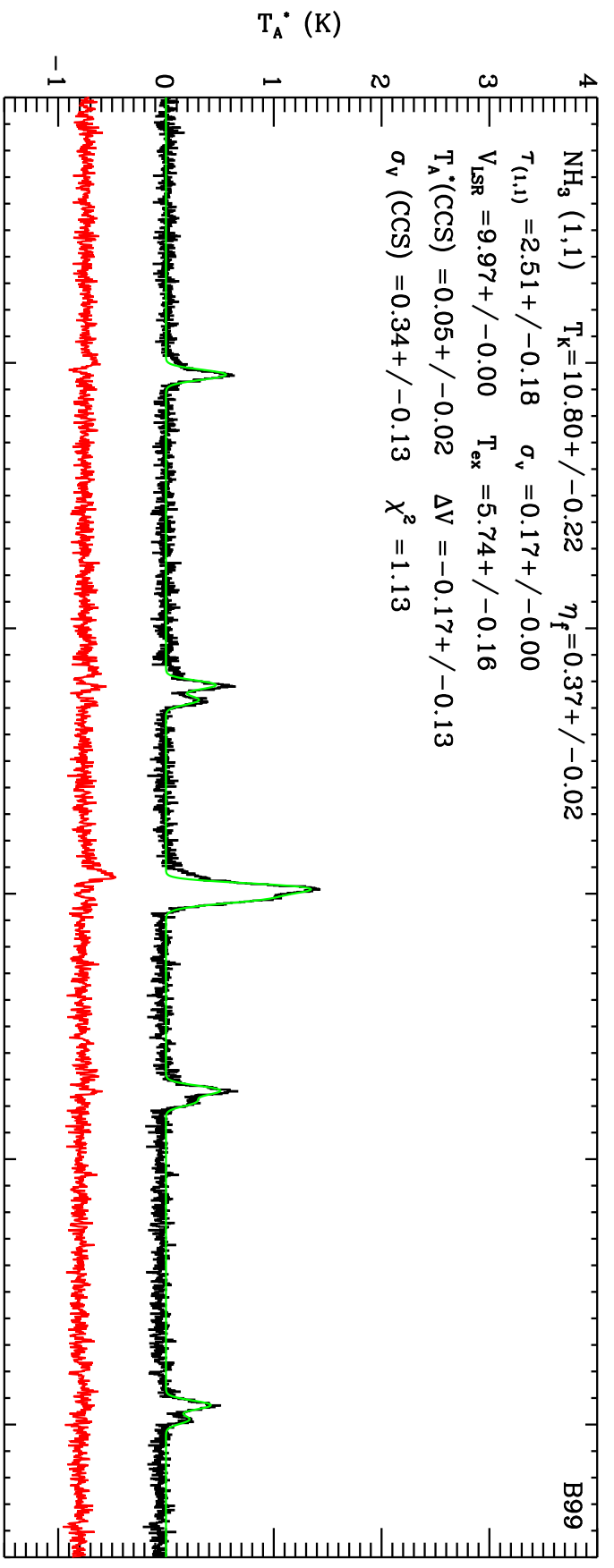


$\text{NH}_3(1,1)$ $T_K = 13.96 \pm 1.01$ $\eta_f = 0.17 \pm 0.07$
 $T_{(1,1)} = 1.70 \pm 0.89$ $\sigma_v = 0.14 \pm 0.01$
 $V_{\text{LSR}} = 8.82 \pm 0.01$ $T_{\text{ex}} = 4.67 \pm 0.84$
 $T_A^*(\text{CCS}) = 0.50 \pm 0.07$ $\Delta V = 0.06 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.10 \pm 0.02$ $\chi^2 = 0.94$

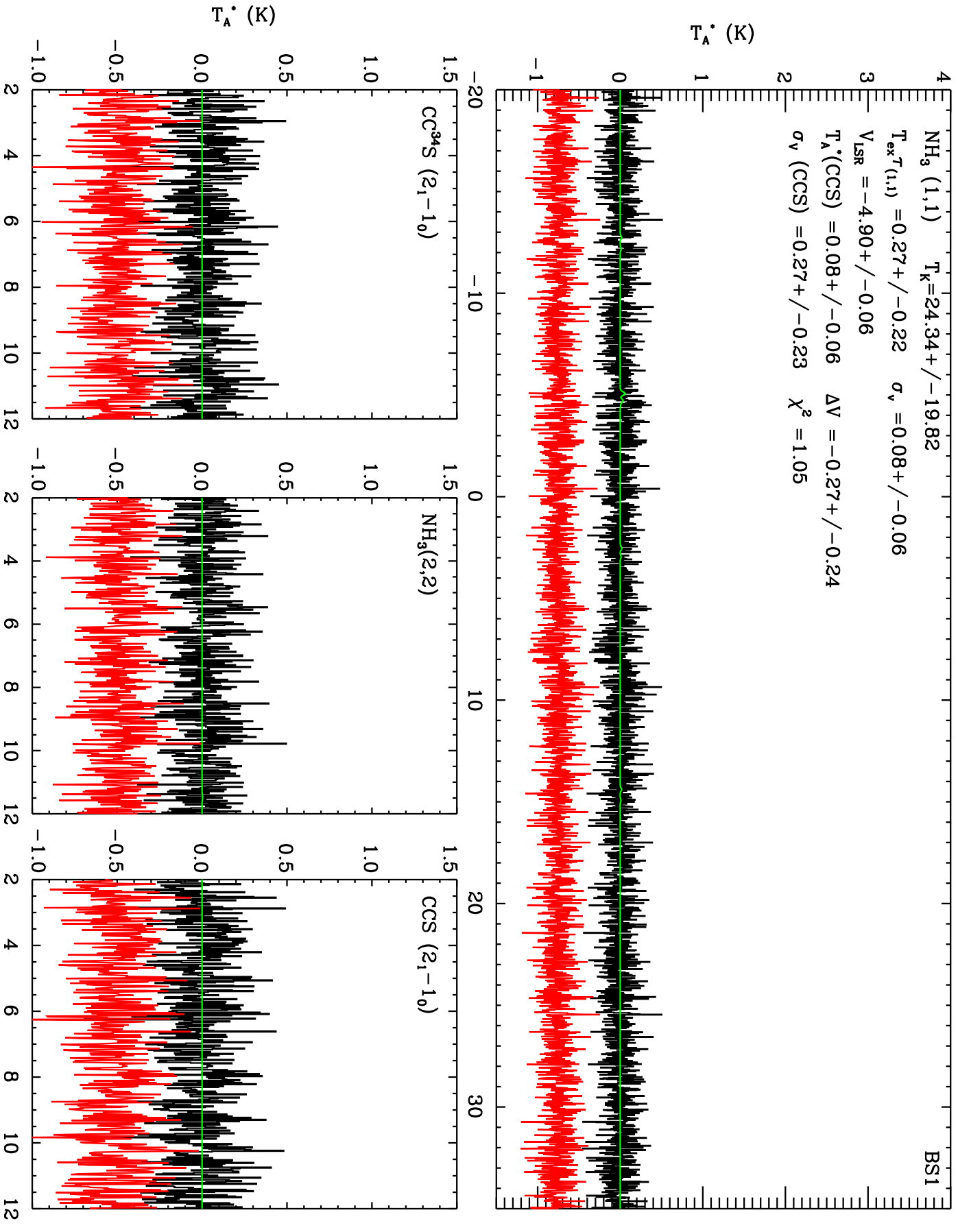




$\text{NH}_3(1,1)$ $T_K = 10.80 \pm 0.22$ $\eta_f = 0.37 \pm 0.02$
 $T_{(1,1)} = 2.51 \pm 0.18$ $\sigma_v = 0.17 \pm 0.00$
 $V_{\text{LSR}} = 9.97 \pm 0.00$ $T_{\text{ex}} = 5.74 \pm 0.16$
 $T_A^*(\text{CCS}) = 0.05 \pm 0.02$ $\Delta V = -0.17 \pm 0.13$
 $\sigma_v(\text{CCS}) = 0.34 \pm 0.13$ $\chi^2 = 1.13$



NH₃ (1,1) $T_K = 24.34 \pm 19.82$
 $T_{\text{ex}}^{T(1,1)} = 0.27 \pm 0.22$ $\sigma_v = 0.08 \pm 0.06$
 $V_{\text{LSR}} = -4.90 \pm 0.06$
 $T_A^*(\text{CCS}) = 0.08 \pm 0.06$ $\Delta V = -0.27 \pm 0.24$
 $\sigma_v(\text{CCS}) = 0.27 \pm 0.23$ $\chi^2 = 1.05$



BS10

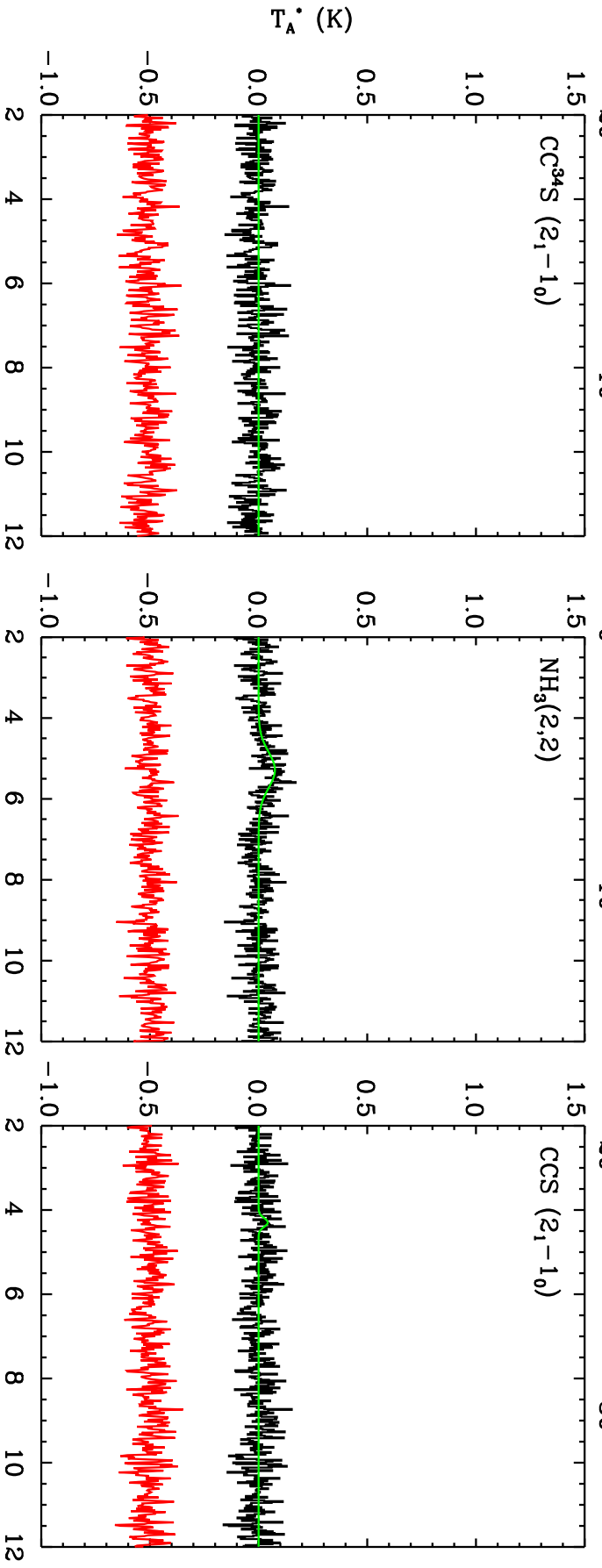
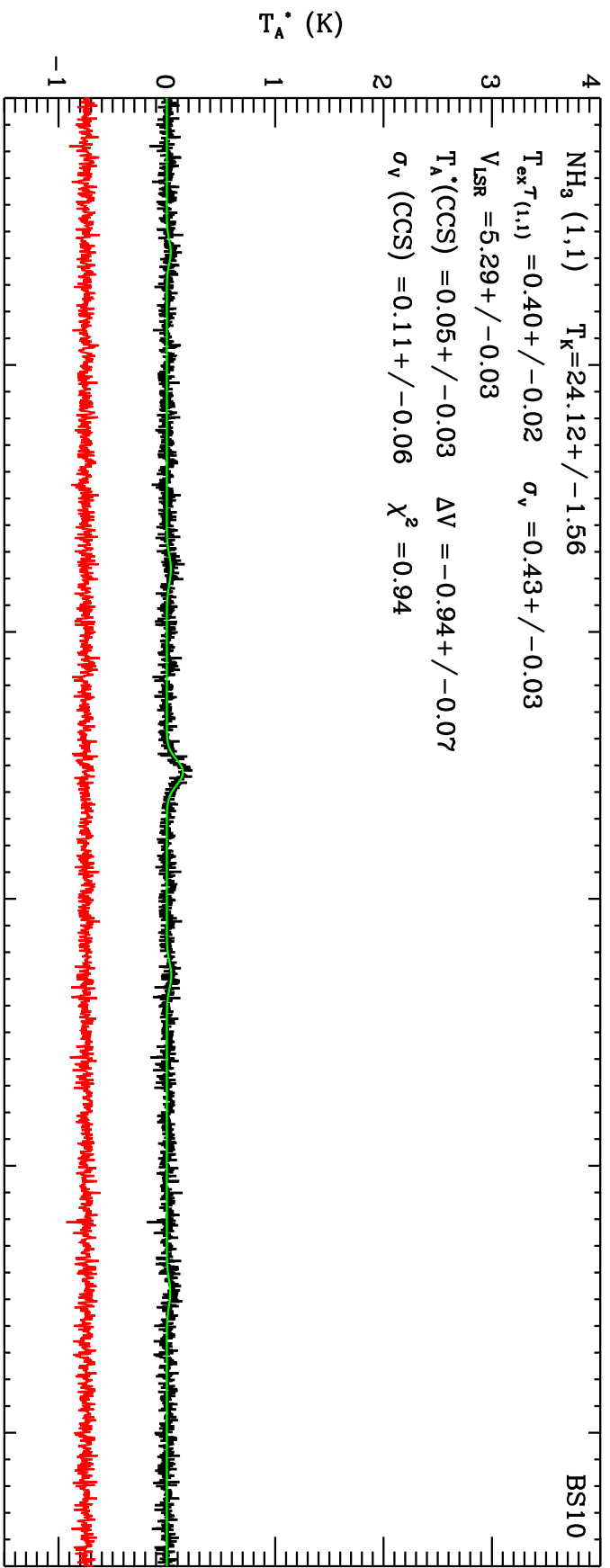
NH₃ (1,1) T_K=24.12+/-1.56

T_{ex}^{T(1,1)} = 0.40+/-0.02 σ_v = 0.43+/-0.03

V_{LSR} = 5.29+/-0.03

T_A^{*}(CCS) = 0.05+/-0.03 ΔV = -0.94+/-0.07

σ_v (CCS) = 0.11+/-0.06 χ² = 0.94



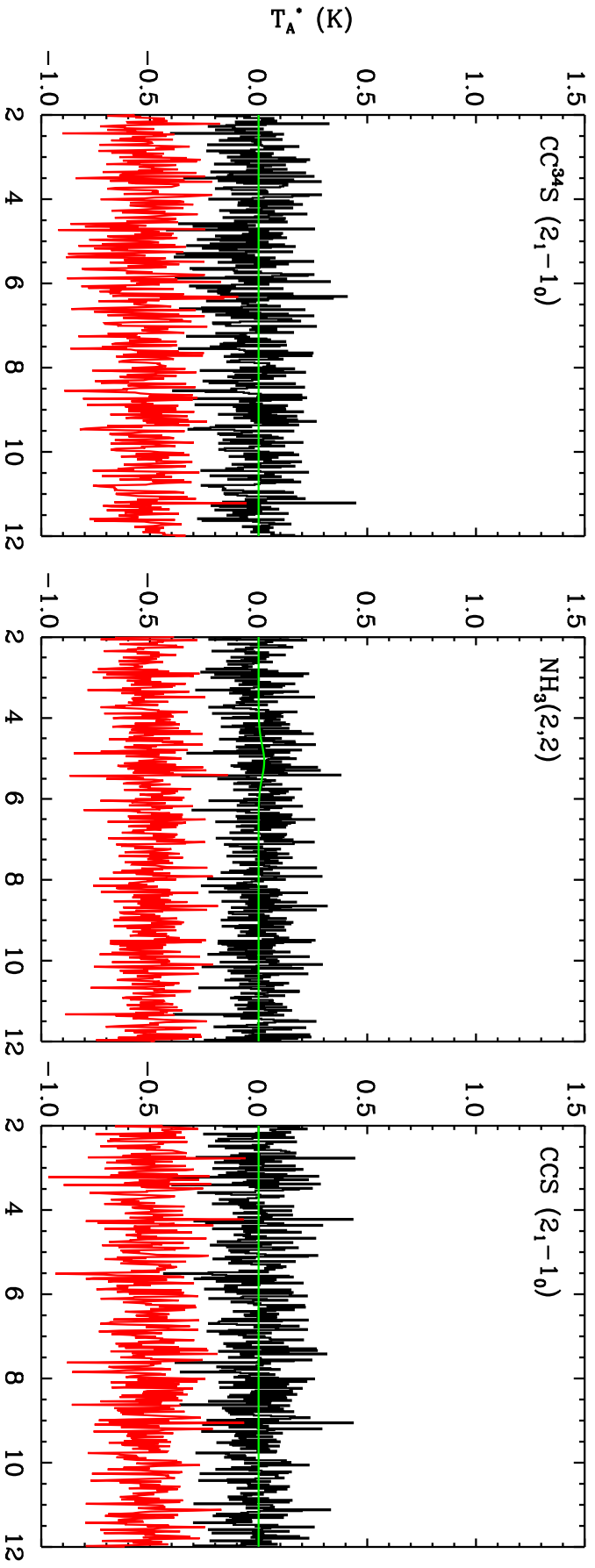
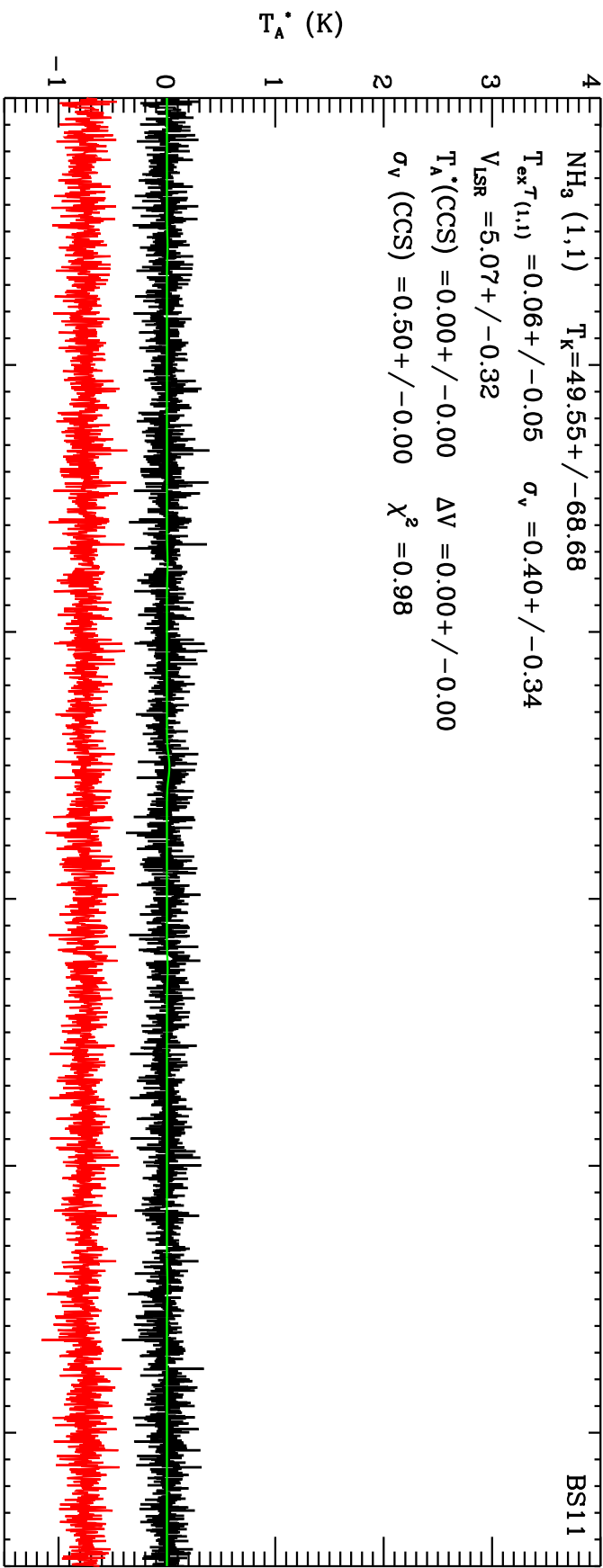
NH₃ (1,1) T_K=49.55+/-68.68 BS11

T_{ex}^{T(1,1)} = 0.06+/-0.05 σ_v = 0.40+/-0.34

V_{LSR} = 5.07+/-0.32

T_A^{*}(CCS) = 0.00+/-0.00 ΔV = 0.00+/-0.00

σ_v (CCS) = 0.50+/-0.00 χ² = 0.98



NH₃ (1,1) T_K=8594865.93+/-3876728264870.93

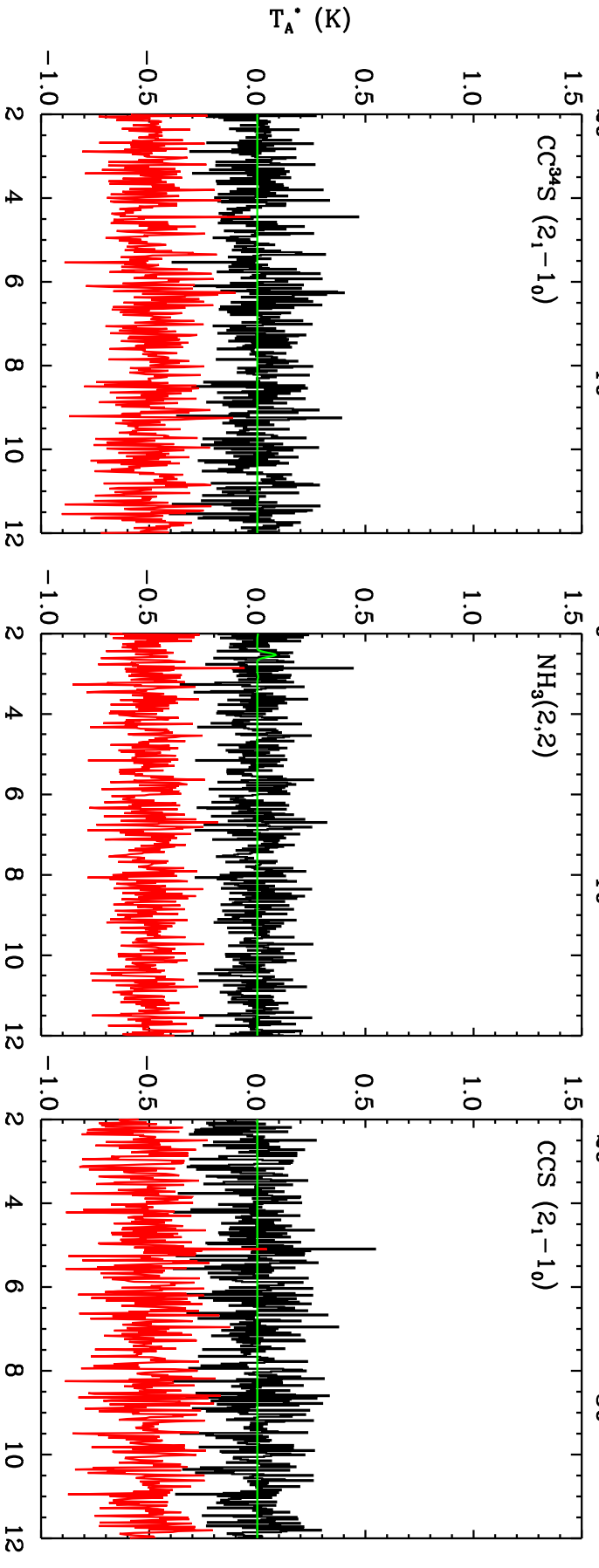
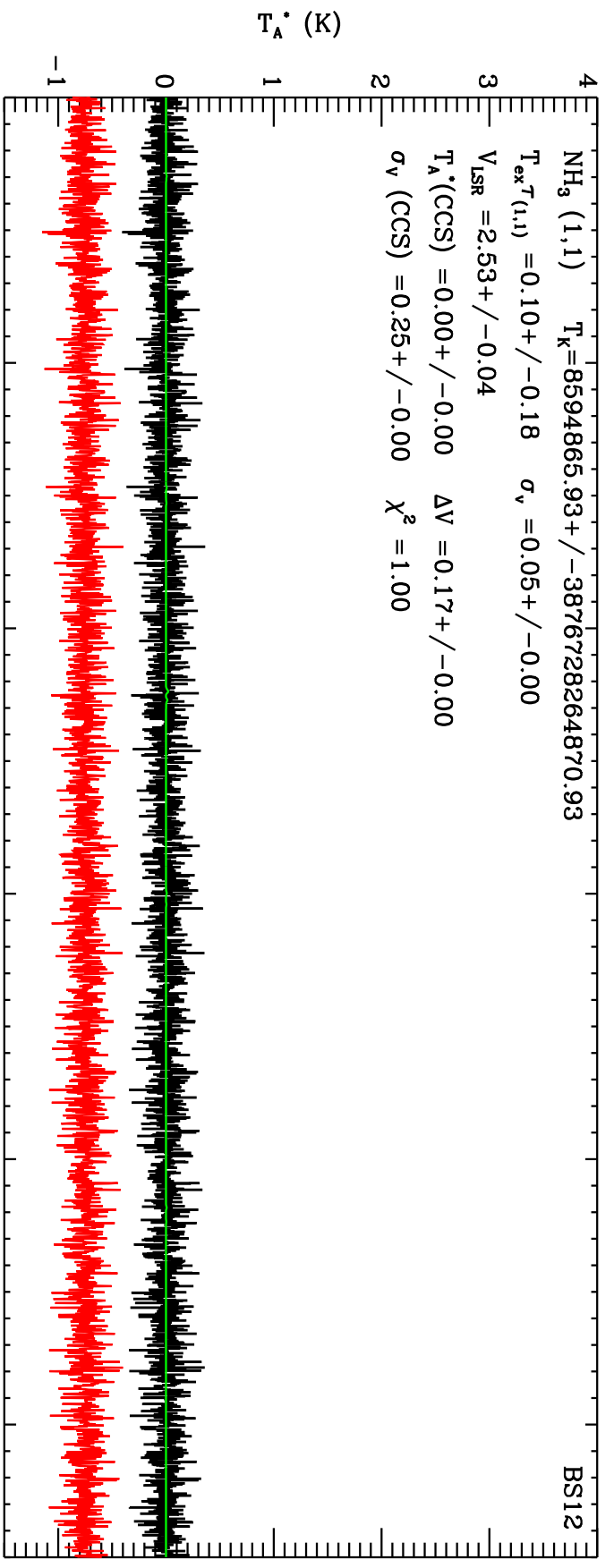
BS12

T_{ex}^{T(1,1)} = 0.10+/-0.18 σ_v = 0.05+/-0.00

V_{LSR} = 2.53+/-0.04

T_A^{*}(CCS) = 0.00+/-0.00 ΔV = 0.17+/-0.00

σ_v (CCS) = 0.25+/-0.00 χ² = 1.00



BS13

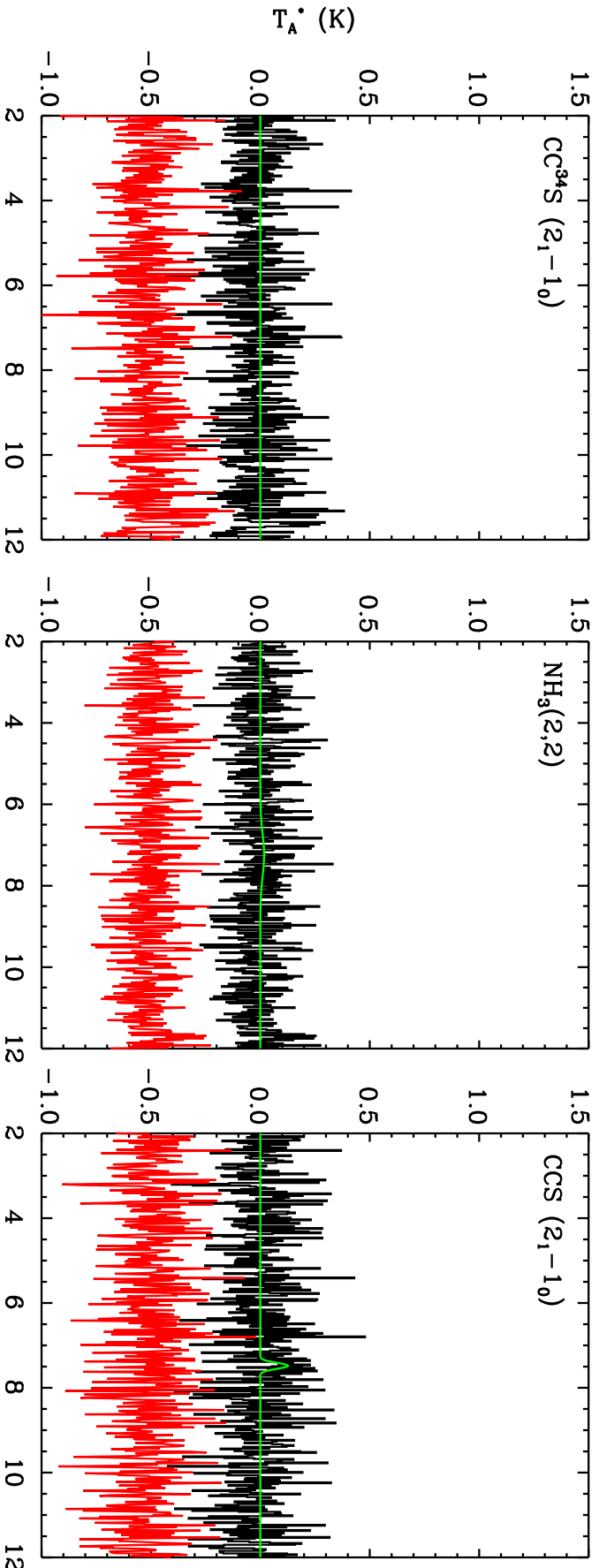
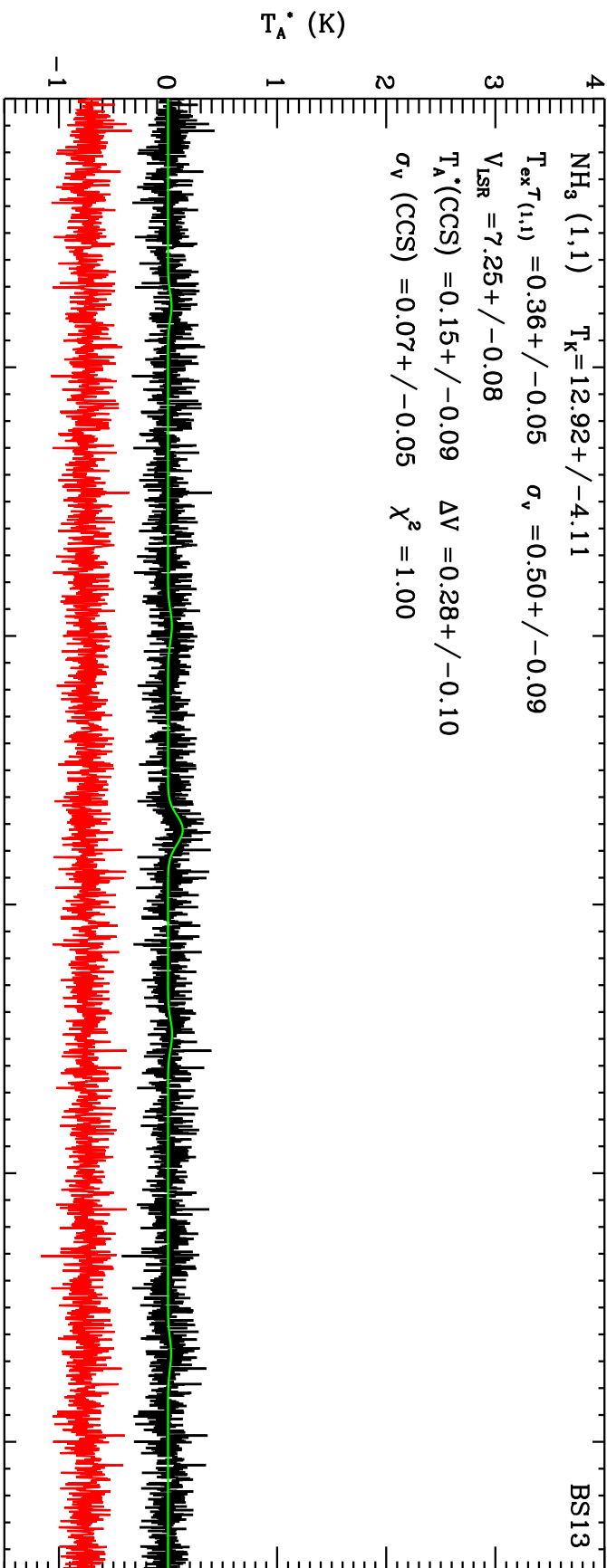
NH₃ (1,1) $T_K = 12.92 \pm 4.11$

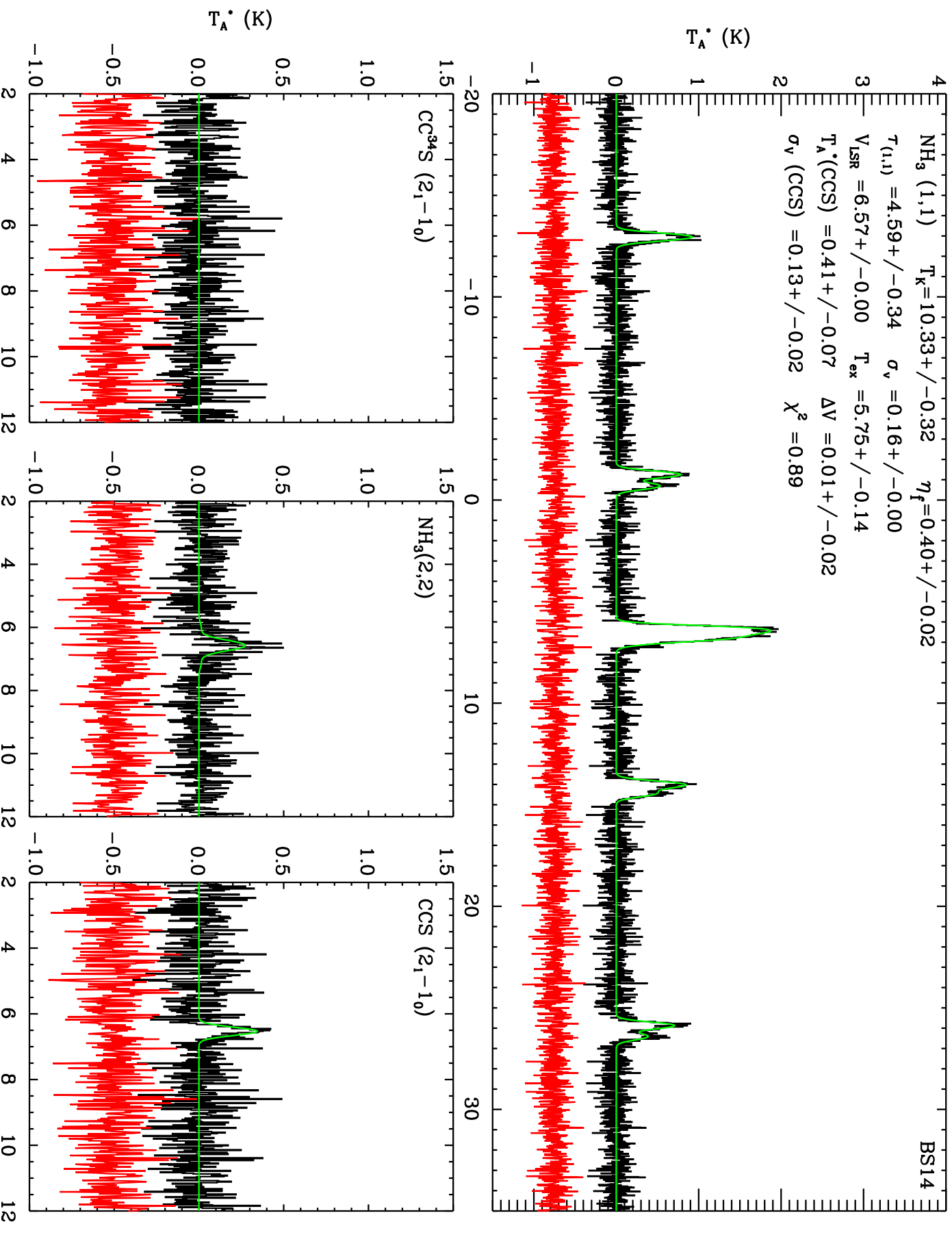
$T_{\text{ex}}^{T(1,1)} = 0.36 \pm 0.05$ $\sigma_v = 0.50 \pm 0.09$

$V_{\text{LSR}} = 7.25 \pm 0.08$

$T_A^*(\text{CCS}) = 0.15 \pm 0.09$ $\Delta V = 0.28 \pm 0.10$

$\sigma_v(\text{CCS}) = 0.07 \pm 0.05$ $\chi^2 = 1.00$





BS15

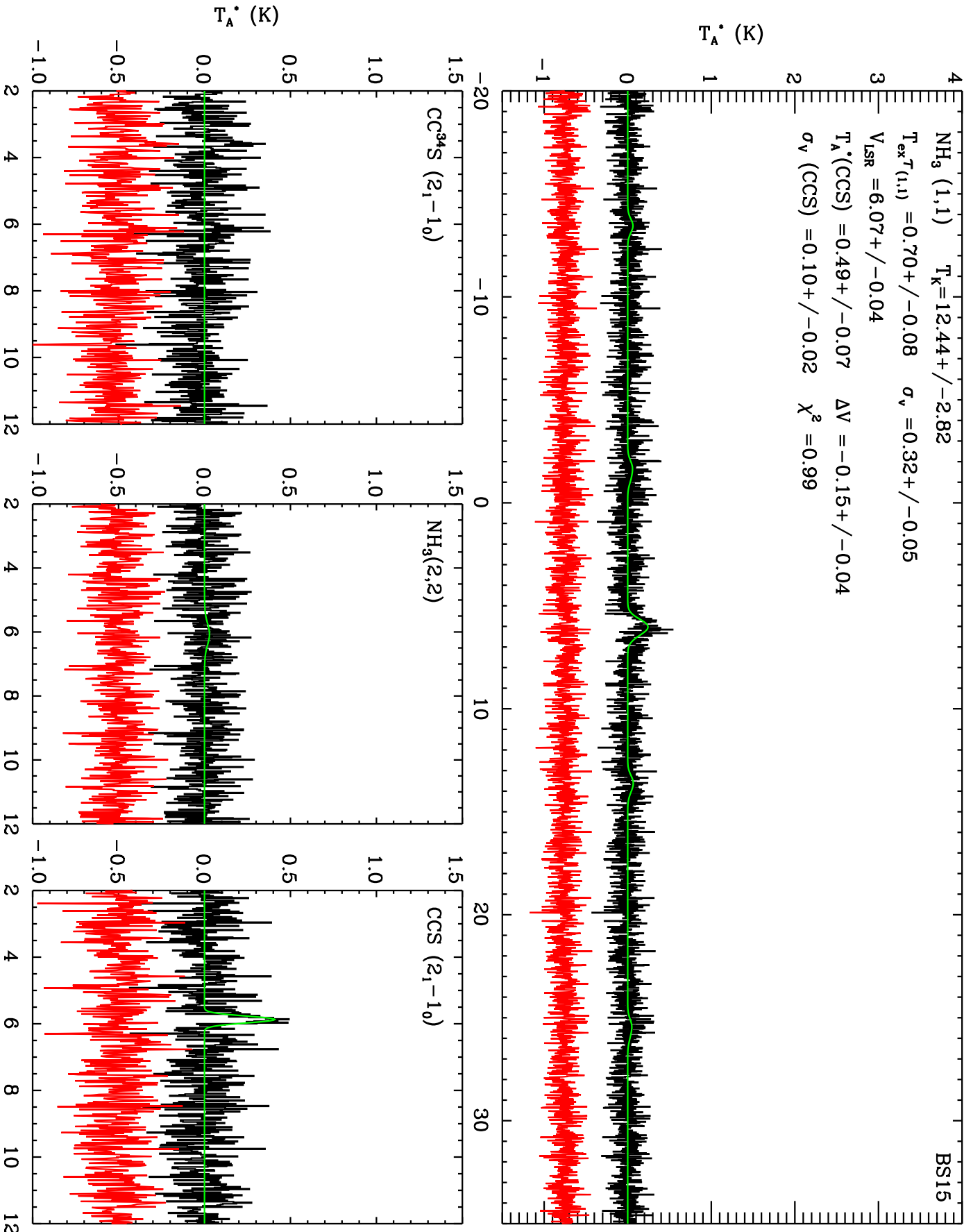
NH₃ (1,1) $T_K = 12.44 \pm 2.82$

$T_{\text{ex}}^{T(1,1)} = 0.70 \pm 0.08$ $\sigma_v = 0.32 \pm 0.05$

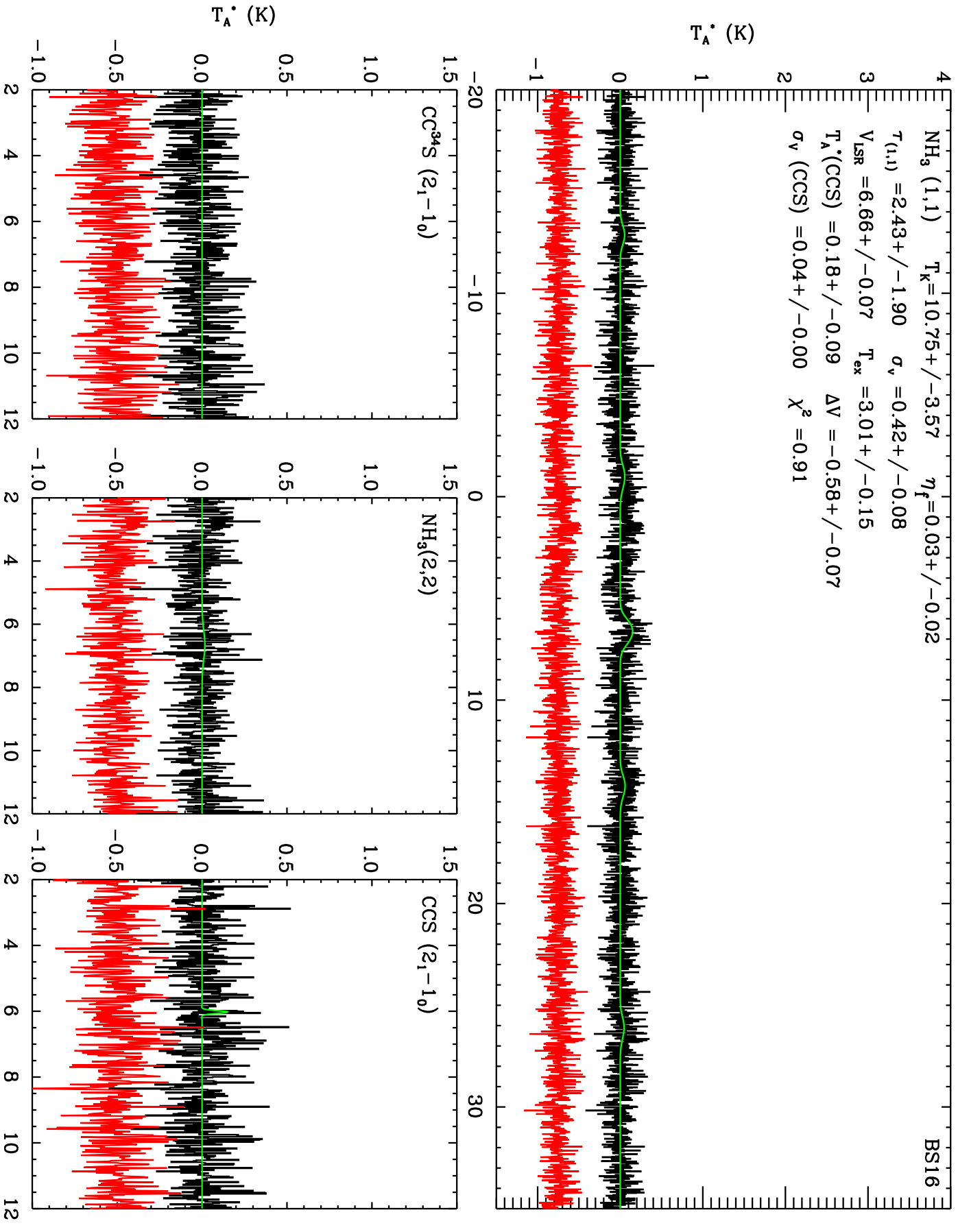
$V_{\text{LSR}} = 6.07 \pm 0.04$

$T_A^*(\text{CCS}) = 0.49 \pm 0.07$ $\Delta V = -0.15 \pm 0.04$

$\sigma_v(\text{CCS}) = 0.10 \pm 0.02$ $\chi^2 = 0.99$



NH₃ (1,1) T_K=10.75+/-3.57 η_f=0.03+/-0.02
 T_(1,1) =2.43+/-1.90 σ_v =0.42+/-0.08
 V_{LSR} =6.66+/-0.07 T_{ex} =3.01+/-0.15
 T_A^{*}(CCS) =0.18+/-0.09 ΔV =-0.58+/-0.07
 σ_v (CCS) =0.04+/-0.00 χ² =0.91



BS17

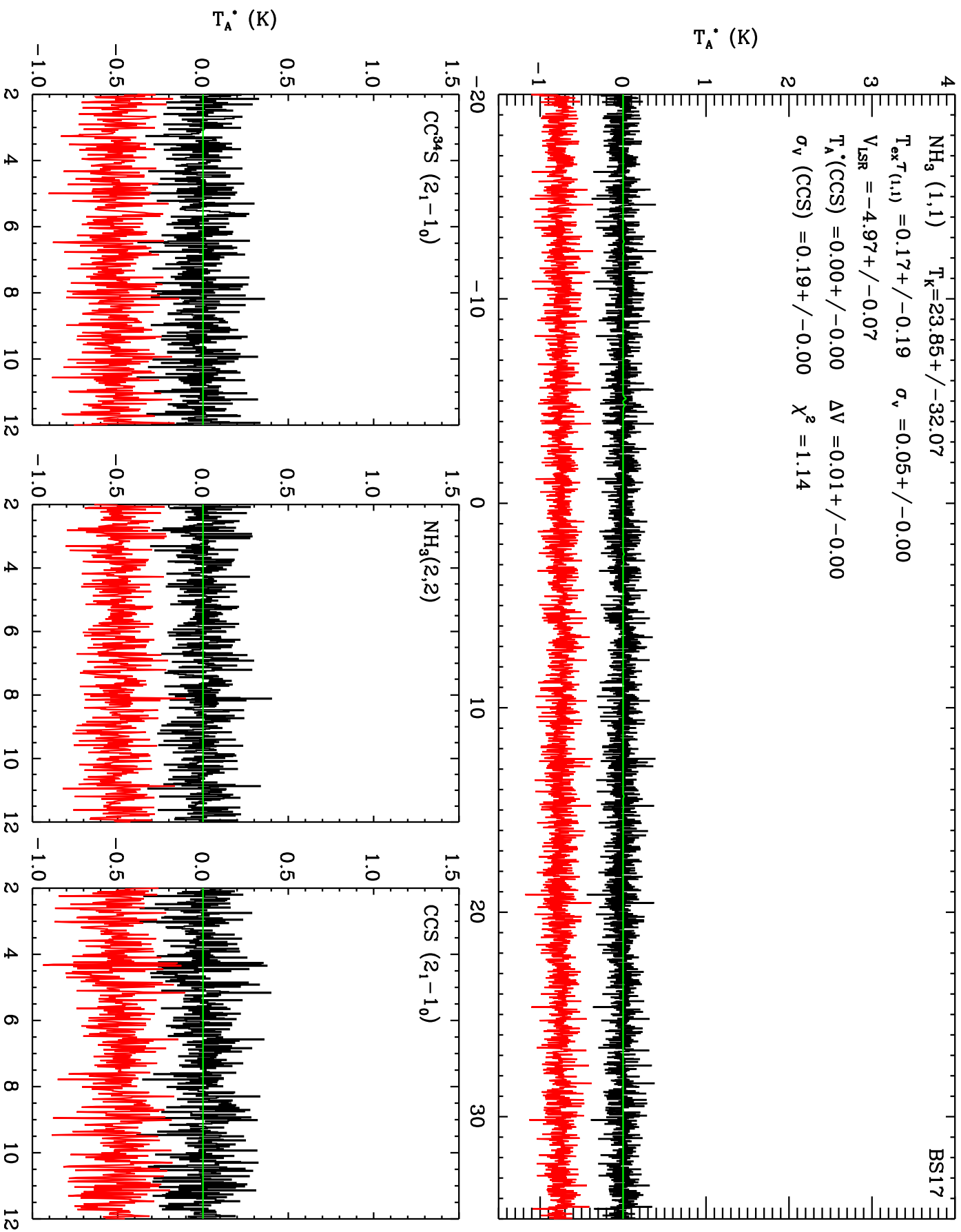
NH₃ (1,1) $T_K = 23.85 / -32.07$

$T_{\text{ex}}^{T(1,1)} = 0.17 / -0.19$ $\sigma_v = 0.05 / -0.00$

$V_{\text{LSR}} = -4.97 / -0.07$

$T_A^*(\text{CCS}) = 0.00 / -0.00$ $\Delta V = 0.01 / -0.00$

$\sigma_v(\text{CCS}) = 0.19 / -0.00$ $\chi^2 = 1.14$



NH₃ (1,1) T_K=15.01+/-5.21

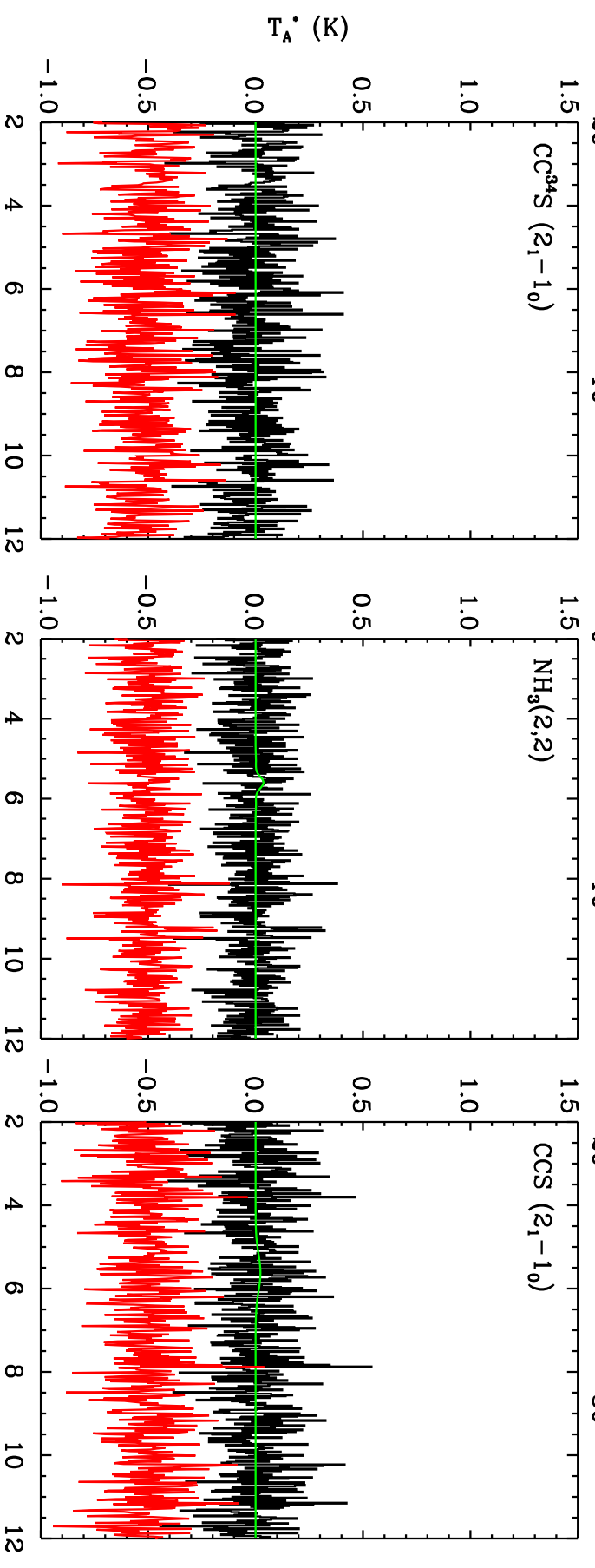
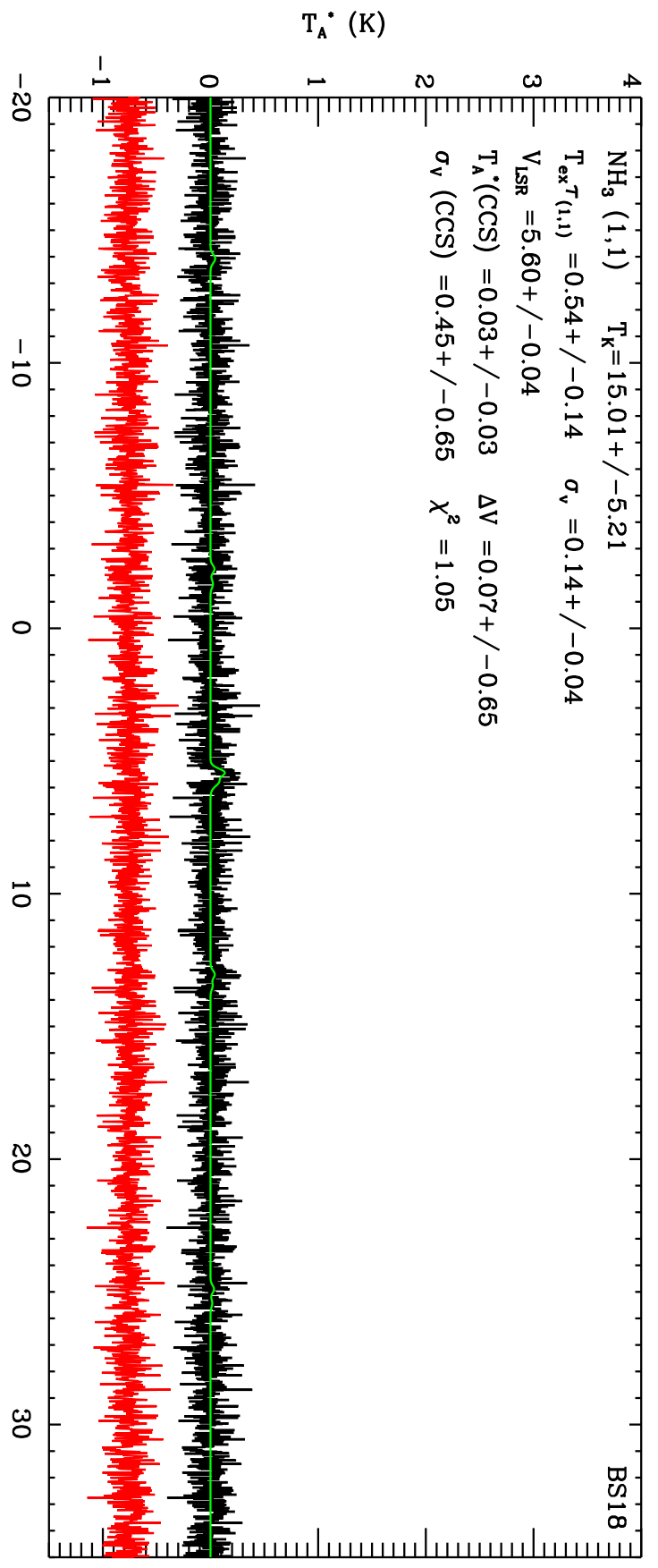
T_{ex}^{T(1,1)} = 0.54+/-0.14 σ_v = 0.14+/-0.04

V_{LSR} = 5.60+/-0.04

T_A^{*}(CCS) = 0.03+/-0.03 ΔV = 0.07+/-0.65

σ_v (CCS) = 0.45+/-0.65 χ² = 1.05

BS18



BS19

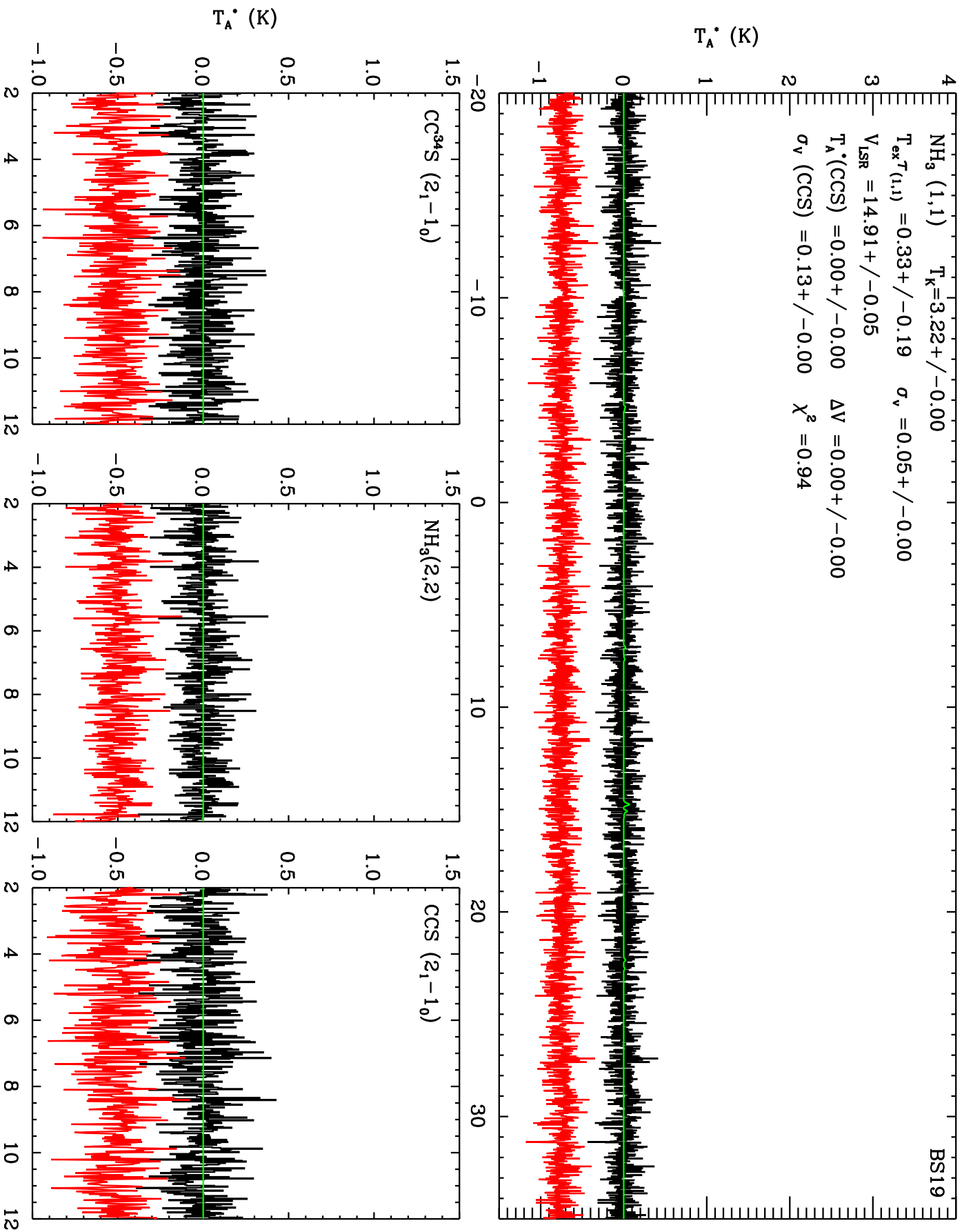
$\text{NH}_3(1,1)$ $T_K = 3.22 \pm 0.00$

$T_{\text{ex}}^{T(1,1)} = 0.33 \pm 0.19$ $\sigma_v = 0.05 \pm 0.00$

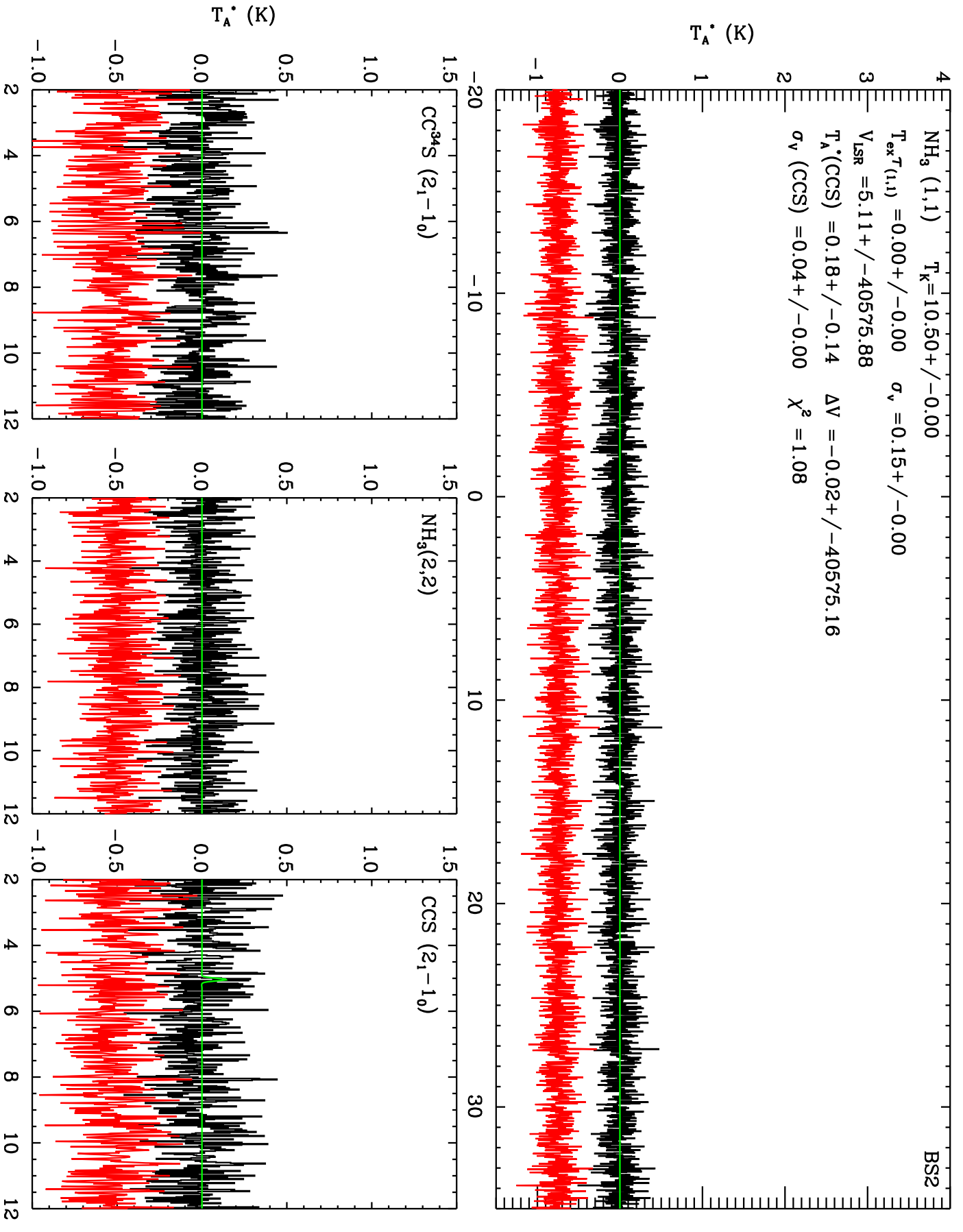
$V_{\text{LSR}} = 14.91 \pm 0.05$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = 0.00 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.13 \pm 0.00$ $\chi^2 = 0.94$



$\text{NH}_3(1,1)$ $T_K = 10.50 + / - 0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.00 + / - 0.00$ $\sigma_v = 0.15 + / - 0.00$
 $V_{\text{LSR}} = 5.11 + / - 40575.88$
 $T_A^*(\text{CCS}) = 0.18 + / - 0.14$ $\Delta V = -0.02 + / - 40575.16$
 $\sigma_v(\text{CCS}) = 0.04 + / - 0.00$ $\chi^2 = 1.08$



NH₃ (1,1) $T_K=7.23+/-52.28$

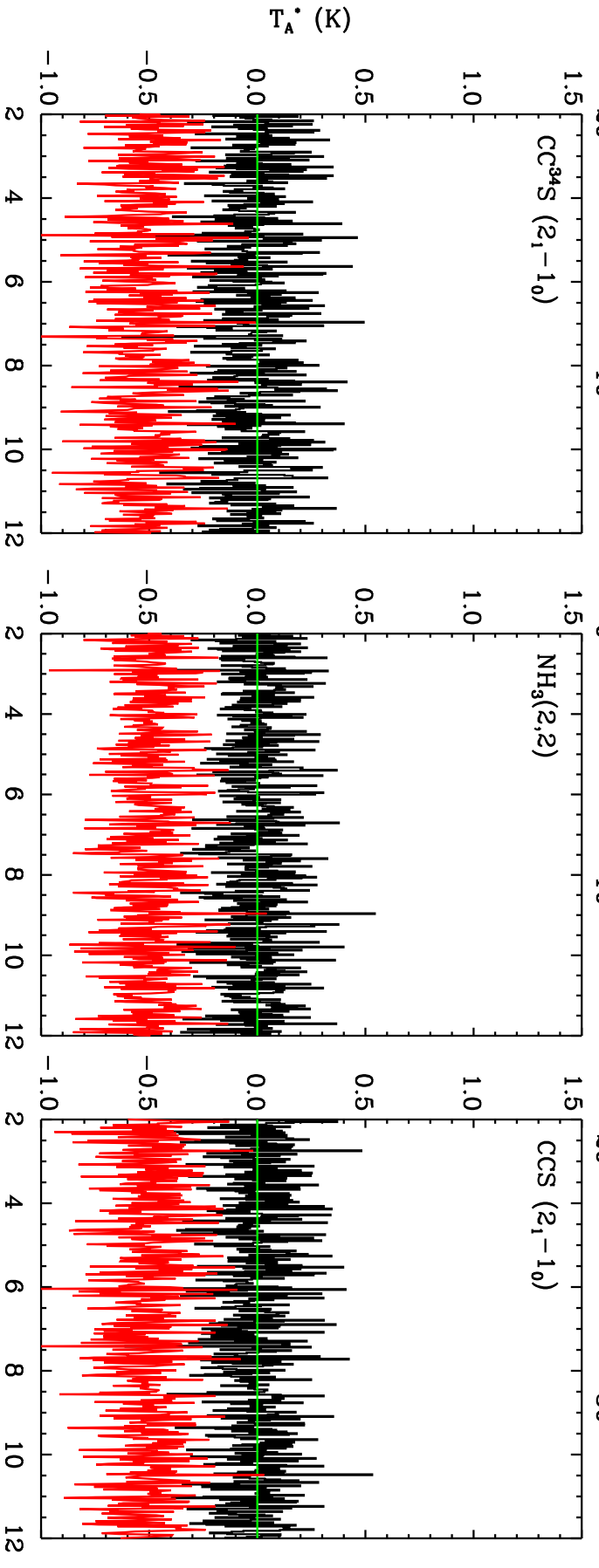
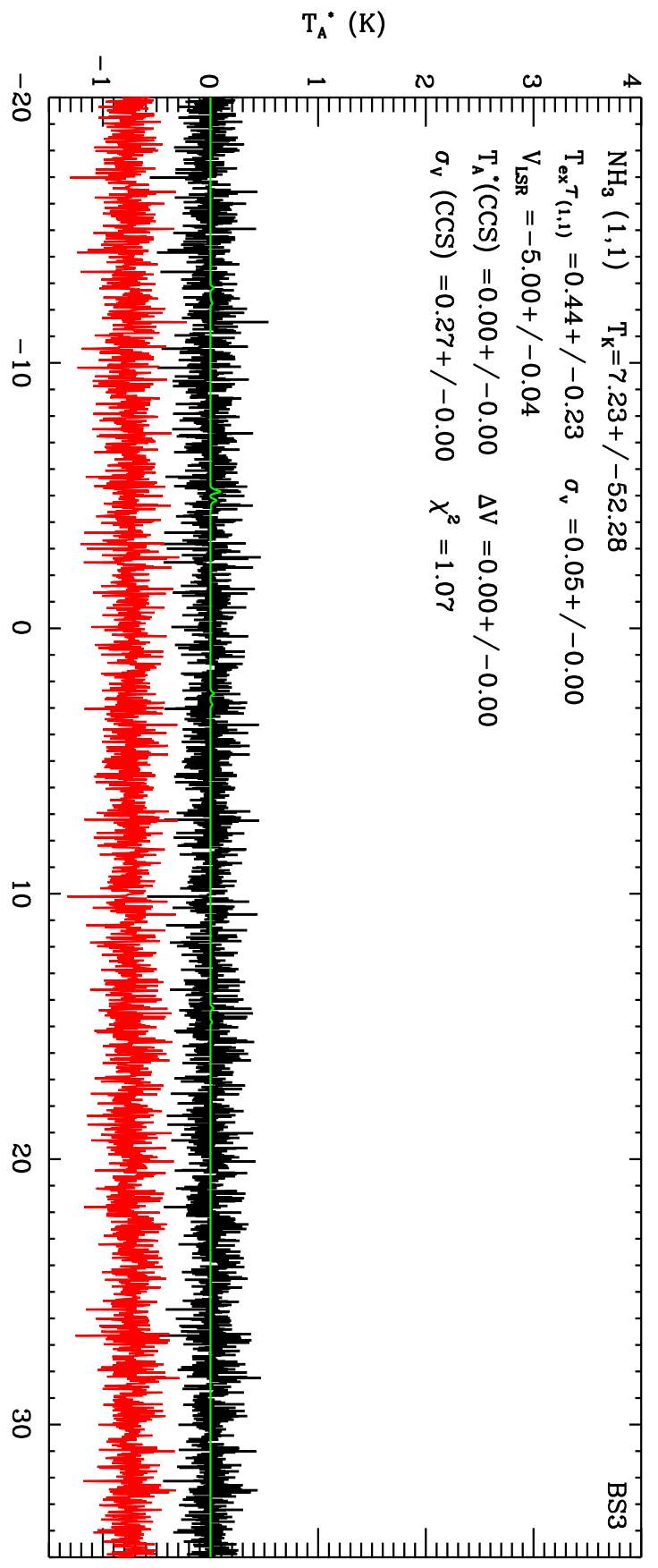
$T_{ex}^{T(1,1)} = 0.44+/-0.23$ $\sigma_v = 0.05+/-0.00$

$V_{LSR} = -5.00+/-0.04$

$T_A^*(CCS) = 0.00+/-0.00$ $\Delta V = 0.00+/-0.00$

σ_v (CCS) = 0.27+/-0.00 $\chi^2 = 1.07$

BS3



BS4

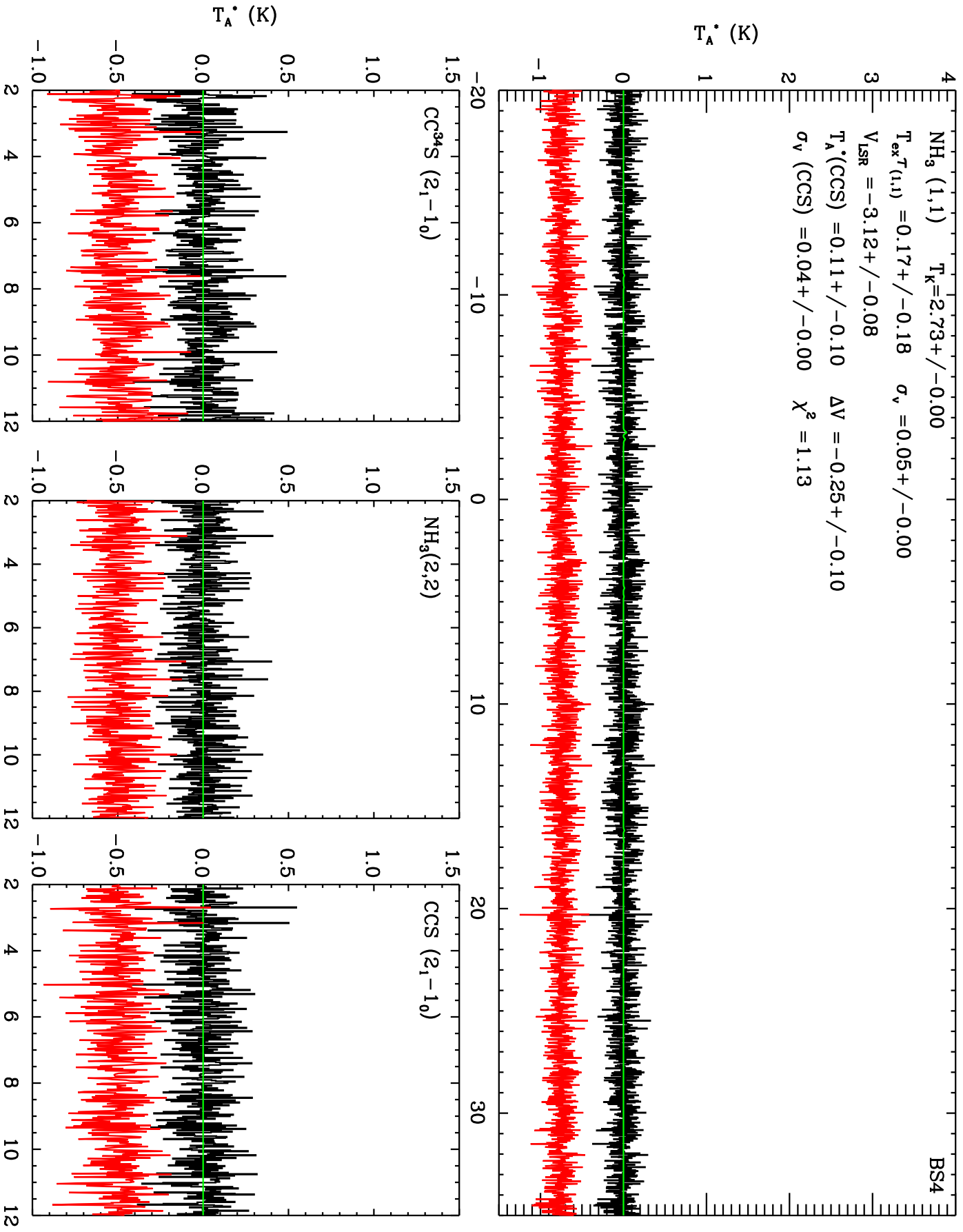
NH₃ (1,1) $T_K = 2.73 \pm 0.00$

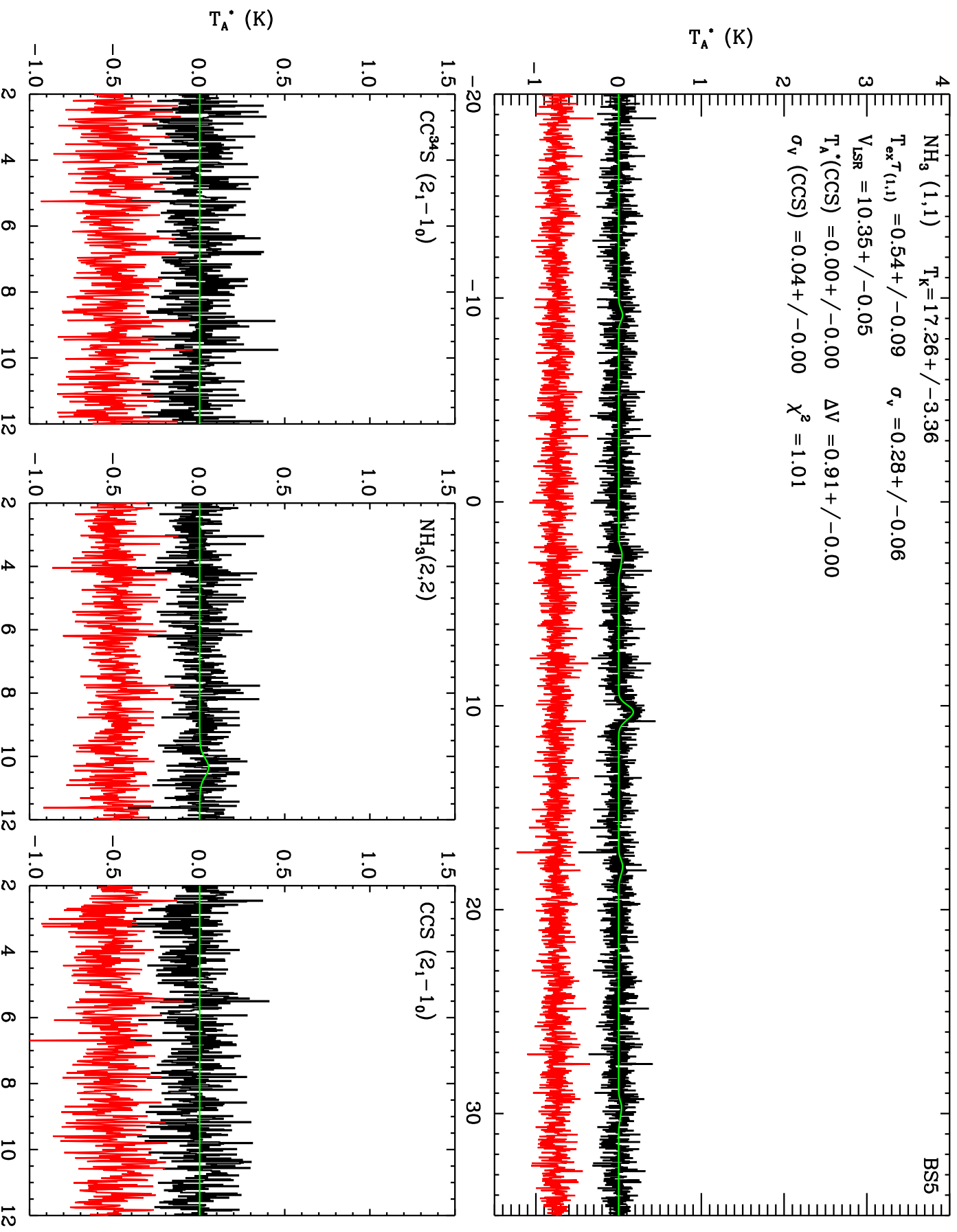
$T_{\text{ex}}^{T(1,1)} = 0.17 \pm 0.18$ $\sigma_v = 0.05 \pm 0.00$

$V_{\text{LSR}} = -3.12 \pm 0.08$

$T_A^*(\text{CCS}) = 0.11 \pm 0.10$ $\Delta V = -0.25 \pm 0.10$

$\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 1.13$





NH₃ (1,1) T_K = 155.77+/-1276.39

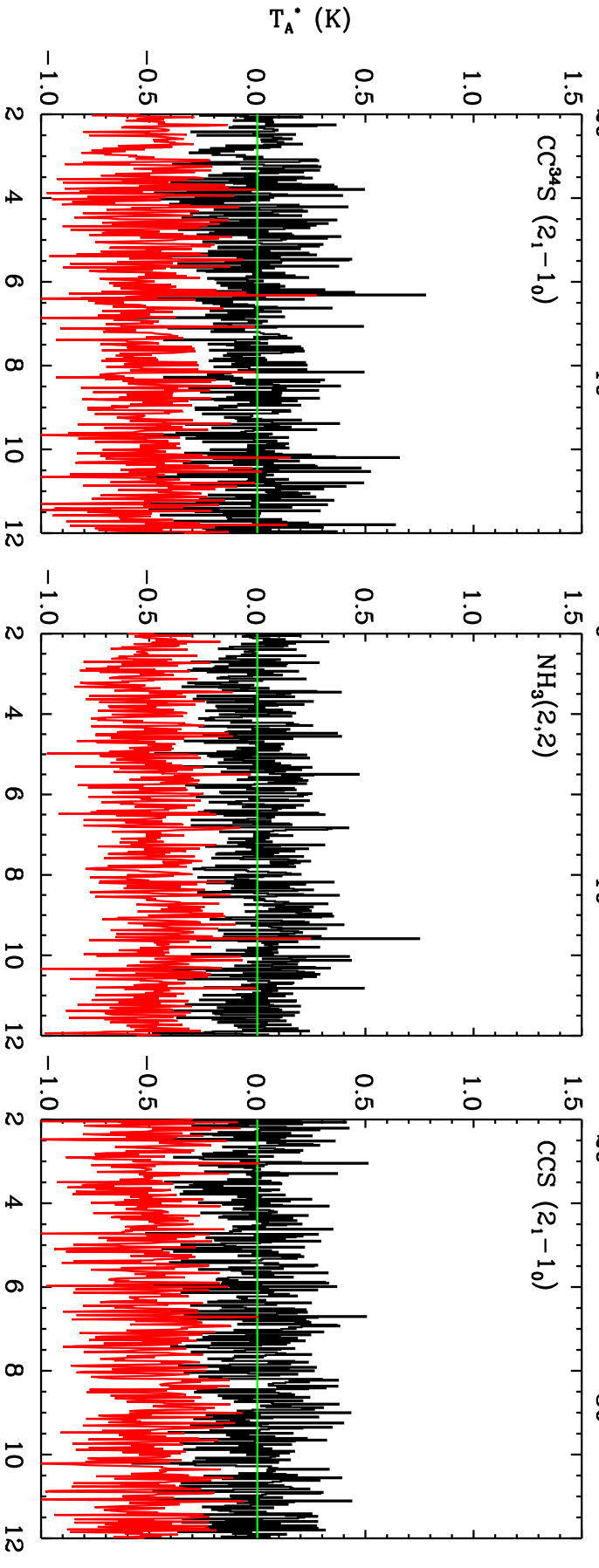
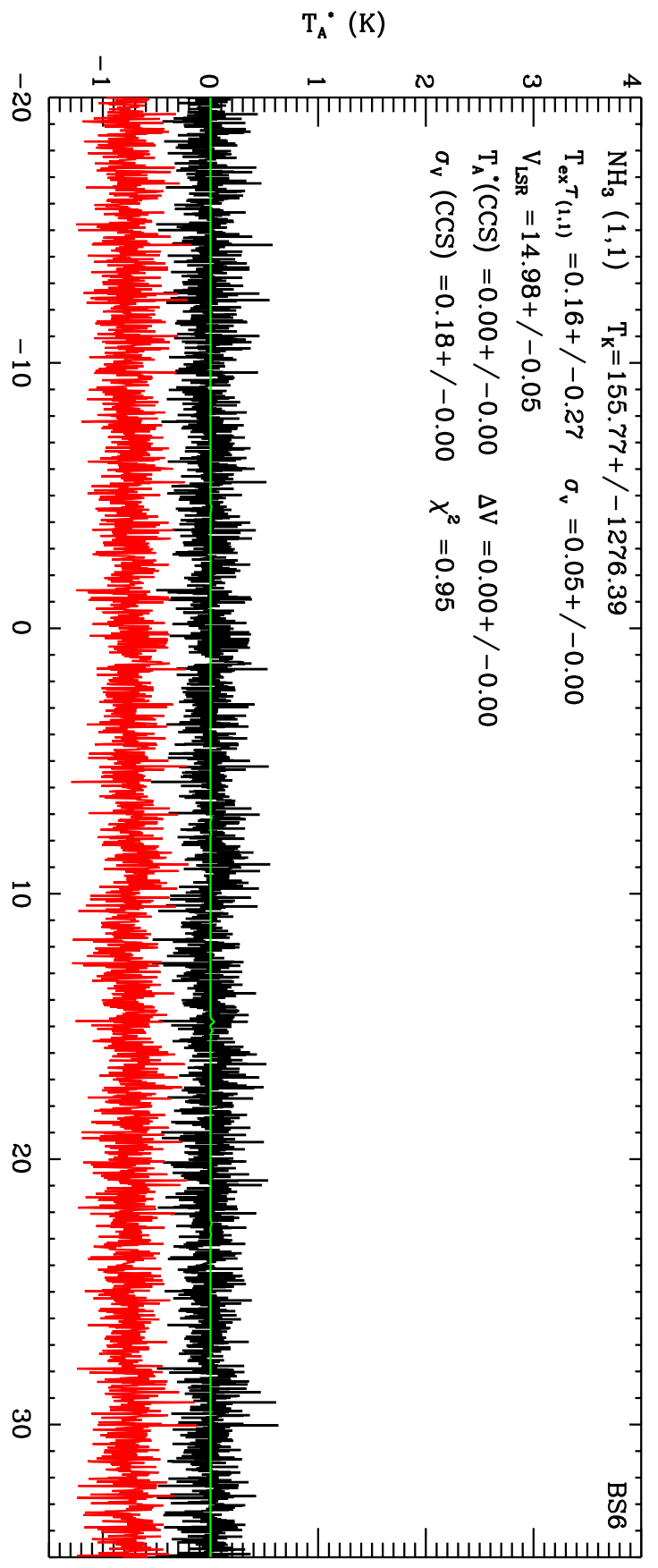
T_{ex}^{T(1,1)} = 0.16+/-0.27 σ_v = 0.05+/-0.00

V_{LSR} = 14.98+/-0.05

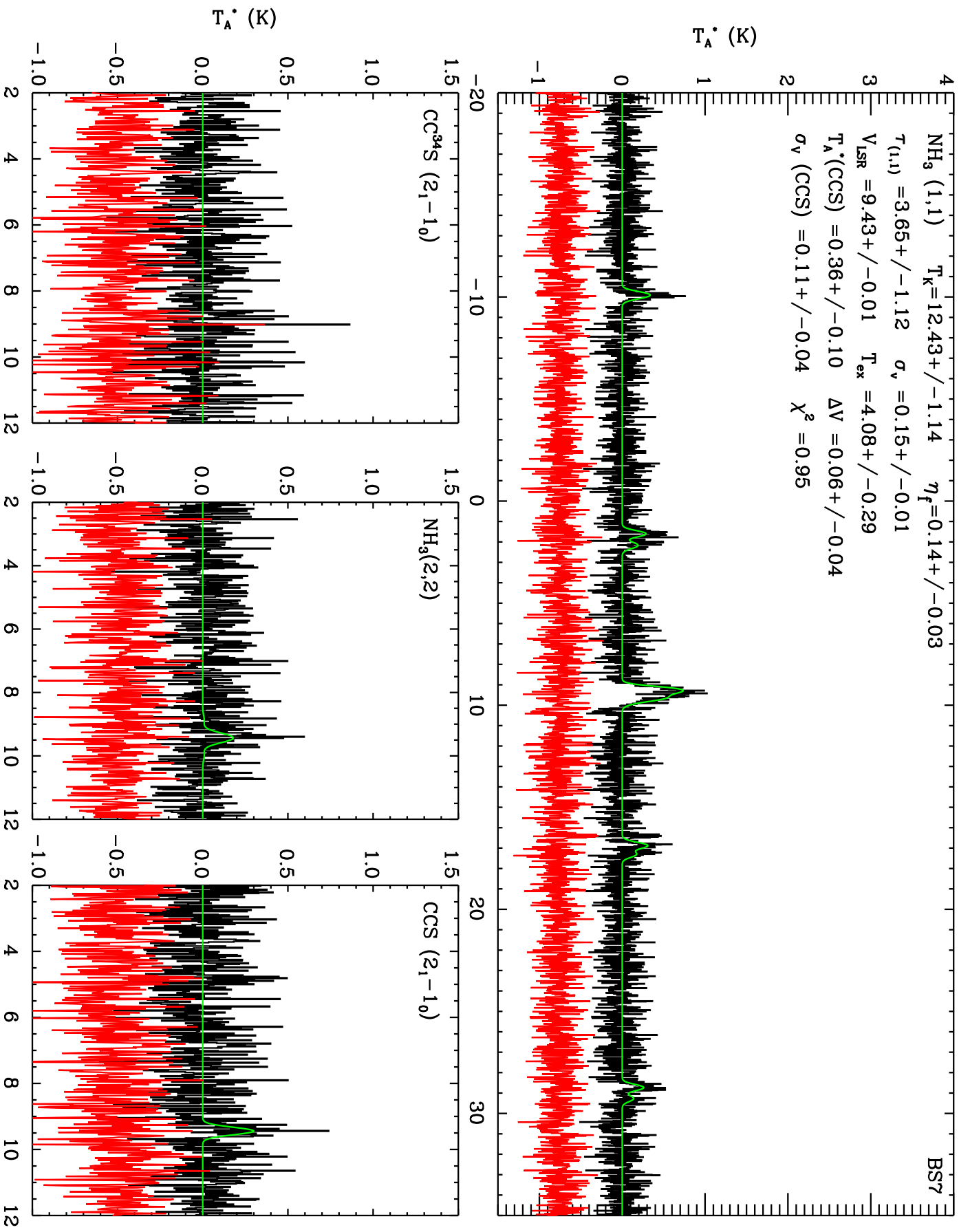
T_A^{*}(CCS) = 0.00+/-0.00 ΔV = 0.00+/-0.00

σ_v (CCS) = 0.18+/-0.00 χ² = 0.95

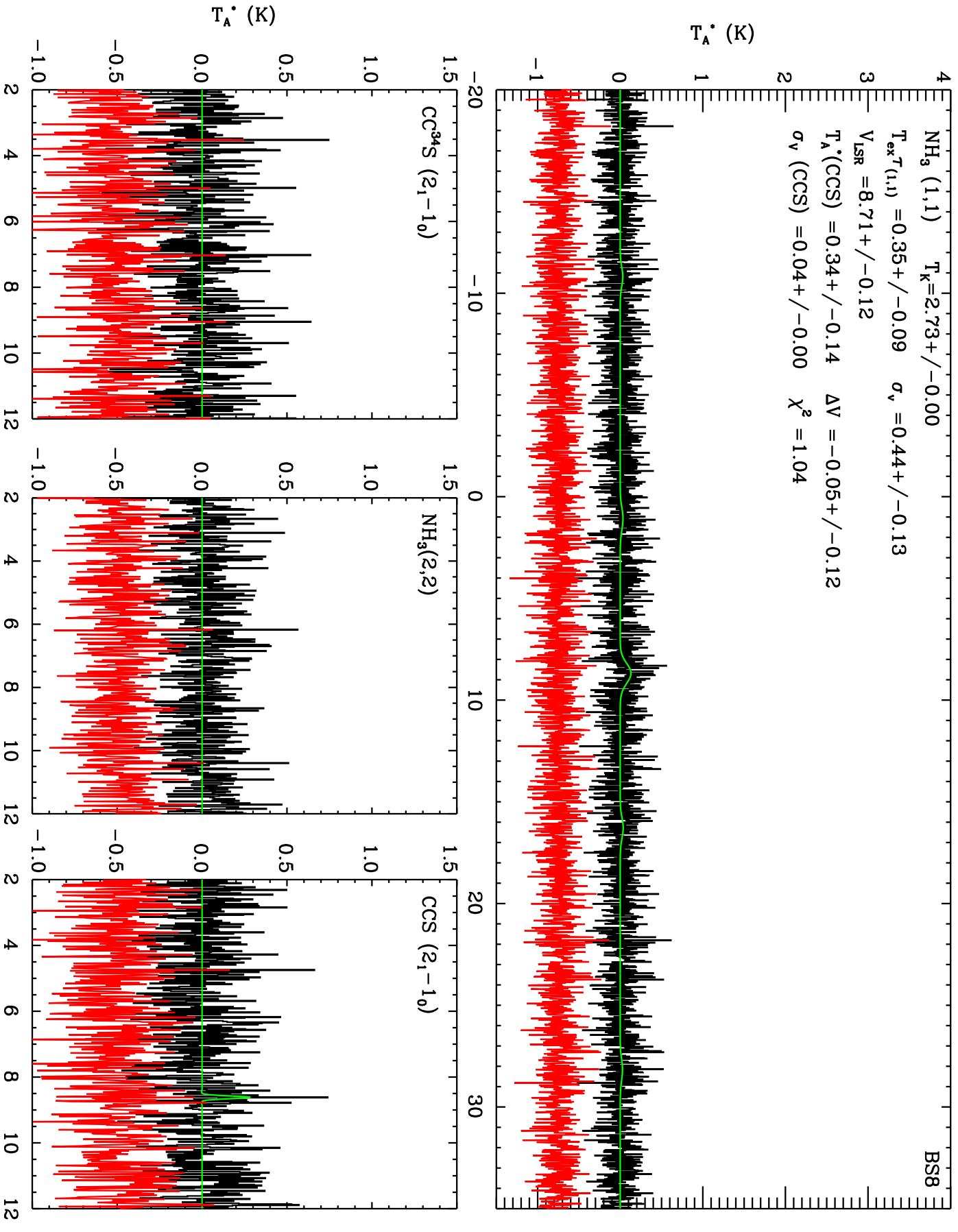
BS6



NH₃ (1,1) $T_K=12.43+/-1.14$ $\eta_f=0.14+/-0.03$
 $T_{(1,1)}=3.65+/-1.12$ $\sigma_v=0.15+/-0.01$
 $V_{LSR}=9.43+/-0.01$ $T_{ex}=4.08+/-0.29$
 $T_A^*(CCS)=0.36+/-0.10$ $\Delta V=0.06+/-0.04$
 $\sigma_v(CCS)=0.11+/-0.04$ $\chi^2=0.95$



$\text{NH}_3(1,1)$ $T_K = 2.73 \pm 0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.35 \pm 0.09$ $\sigma_v = 0.44 \pm 0.13$
 $V_{\text{LSR}} = 8.71 \pm 0.12$
 $T_A^*(\text{CCS}) = 0.34 \pm 0.14$ $\Delta V = -0.05 \pm 0.12$
 $\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 1.04$



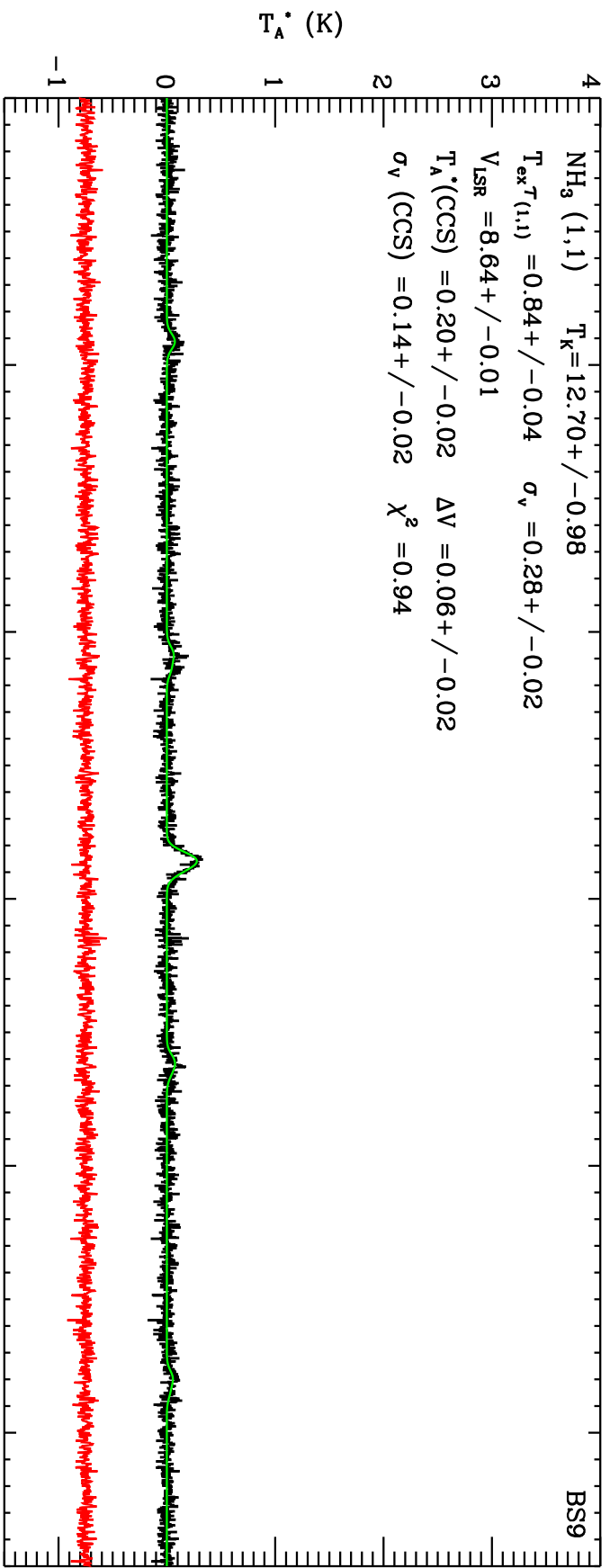
NH₃ (1,1) T_K = 12.70 ± 0.98 BS9

T_{ex}^{T(1,1)} = 0.84 ± 0.04 σ_v = 0.28 ± 0.02

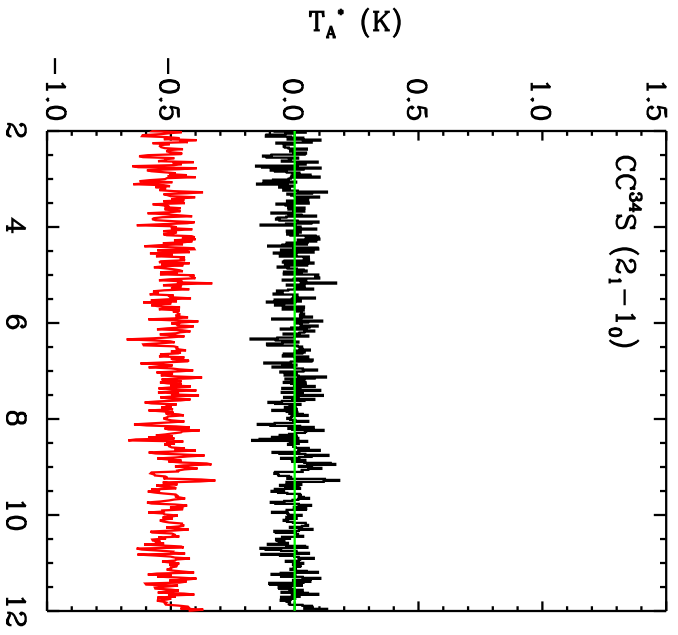
V_{LSR} = 8.64 ± 0.01

T_A^{*}(CCS) = 0.20 ± 0.02 ΔV = 0.06 ± 0.02

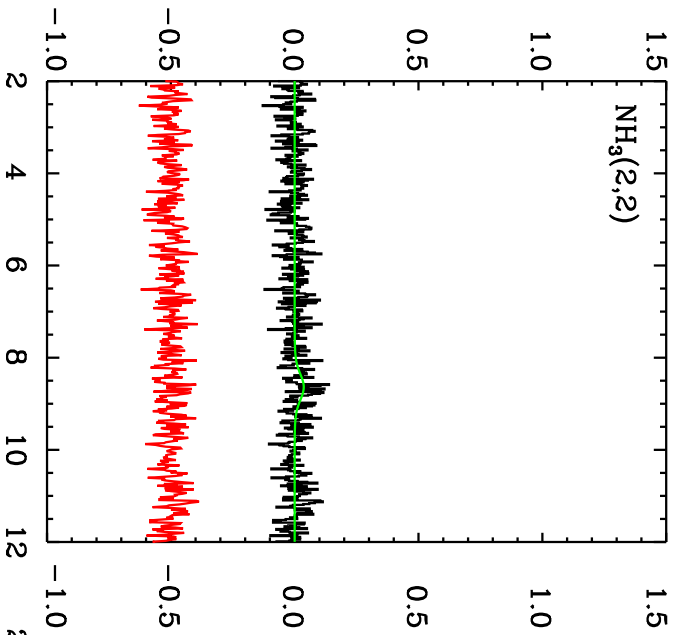
σ_v (CCS) = 0.14 ± 0.02 χ² = 0.94



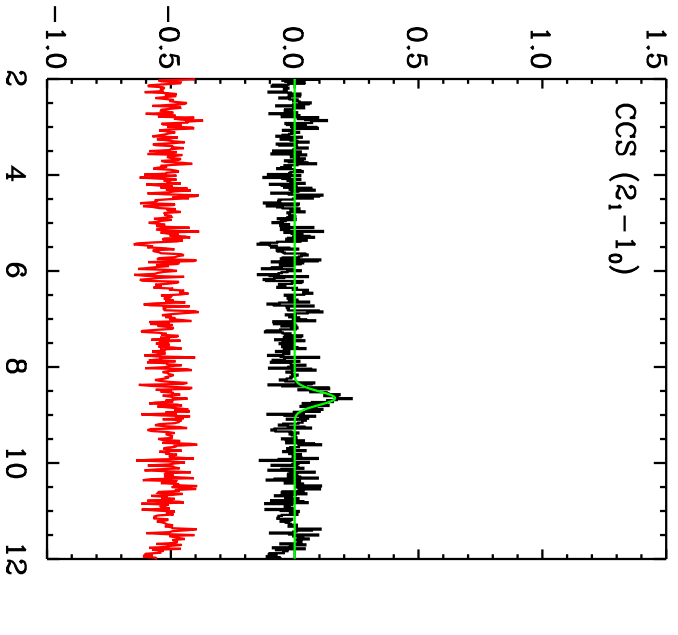
CC³⁴S (2₁-1₀)



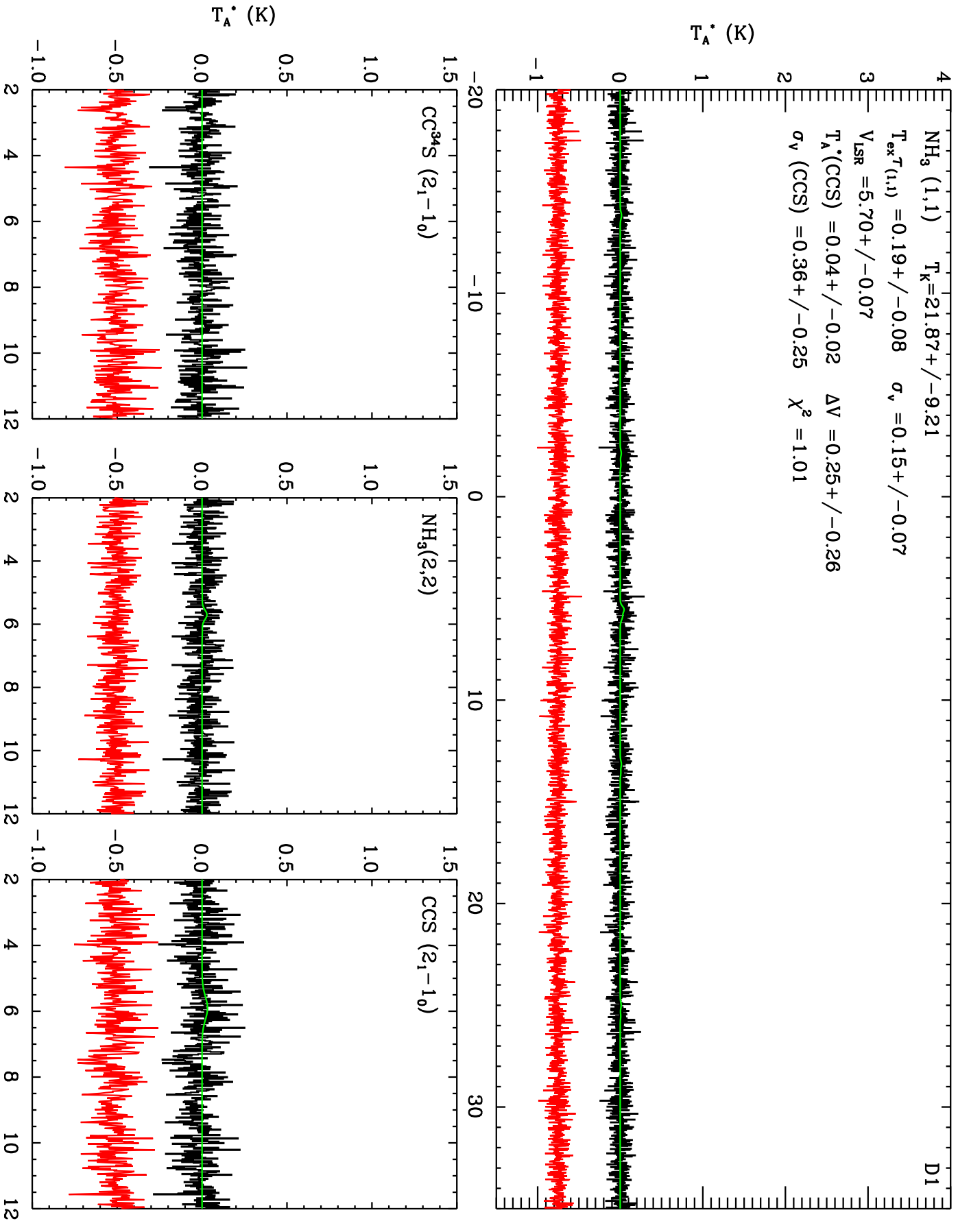
NH₃(2,2)



CCS (2₁-1₀)



$\text{NH}_3(1,1) \quad T_K = 21.87 \pm 9.21$
 $T_{\text{ex}}^{T(1,1)} = 0.19 \pm 0.08 \quad \sigma_v = 0.15 \pm 0.07$
 $V_{\text{LSR}} = 5.70 \pm 0.07$
 $T_A^*(\text{CCS}) = 0.04 \pm 0.02 \quad \Delta V = 0.25 \pm 0.26$
 $\sigma_v(\text{CCS}) = 0.36 \pm 0.25 \quad \chi^2 = 1.01$



D10

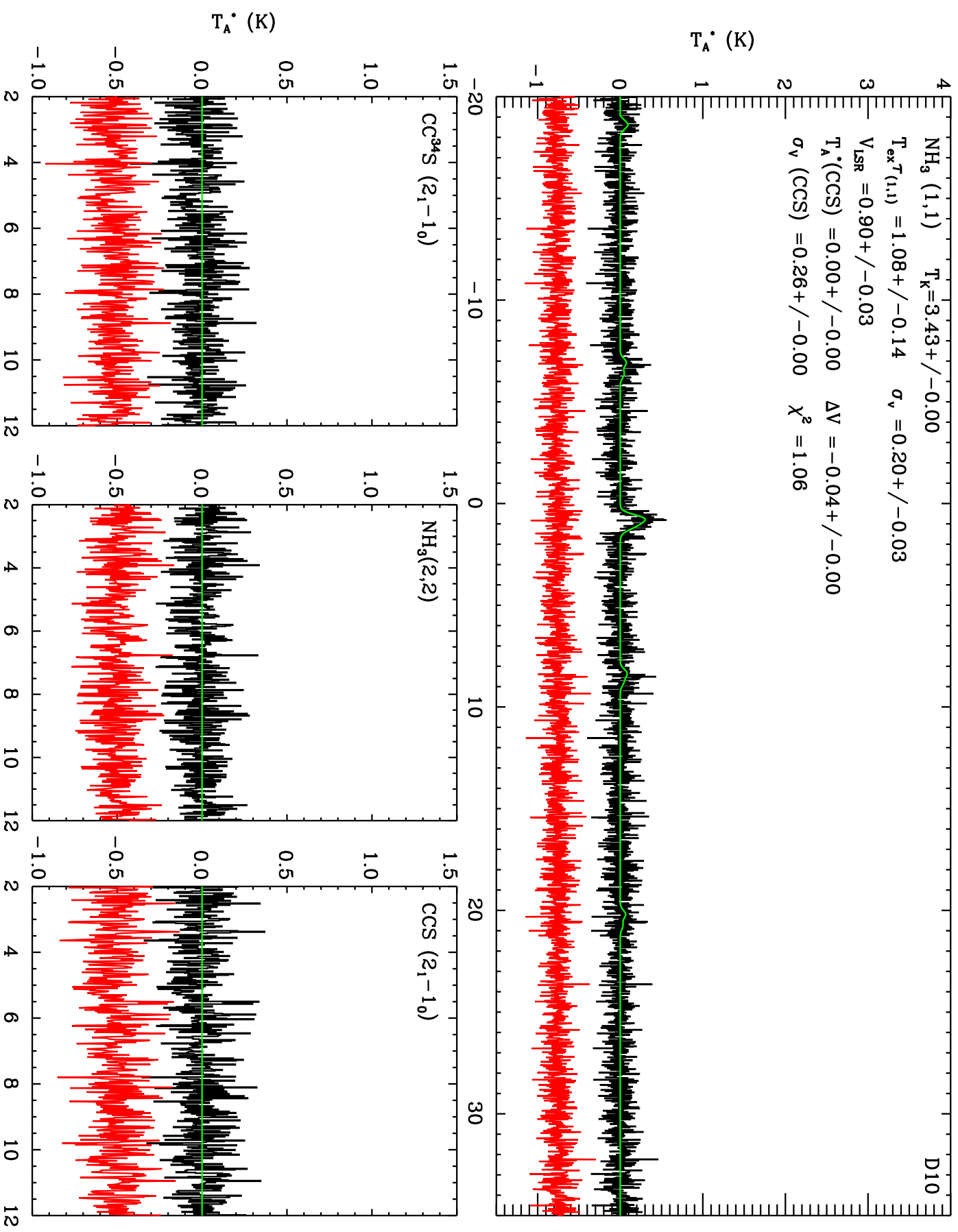
NH₃ (1,1) $T_K = 3.43 \pm 0.00$

$T_{\text{ex}}^{T(1,1)} = 1.08 \pm 0.14$ $\sigma_v = 0.20 \pm 0.03$

$V_{\text{LSR}} = 0.90 \pm 0.03$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.04 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.26 \pm 0.00$ $\chi^2 = 1.06$



D11

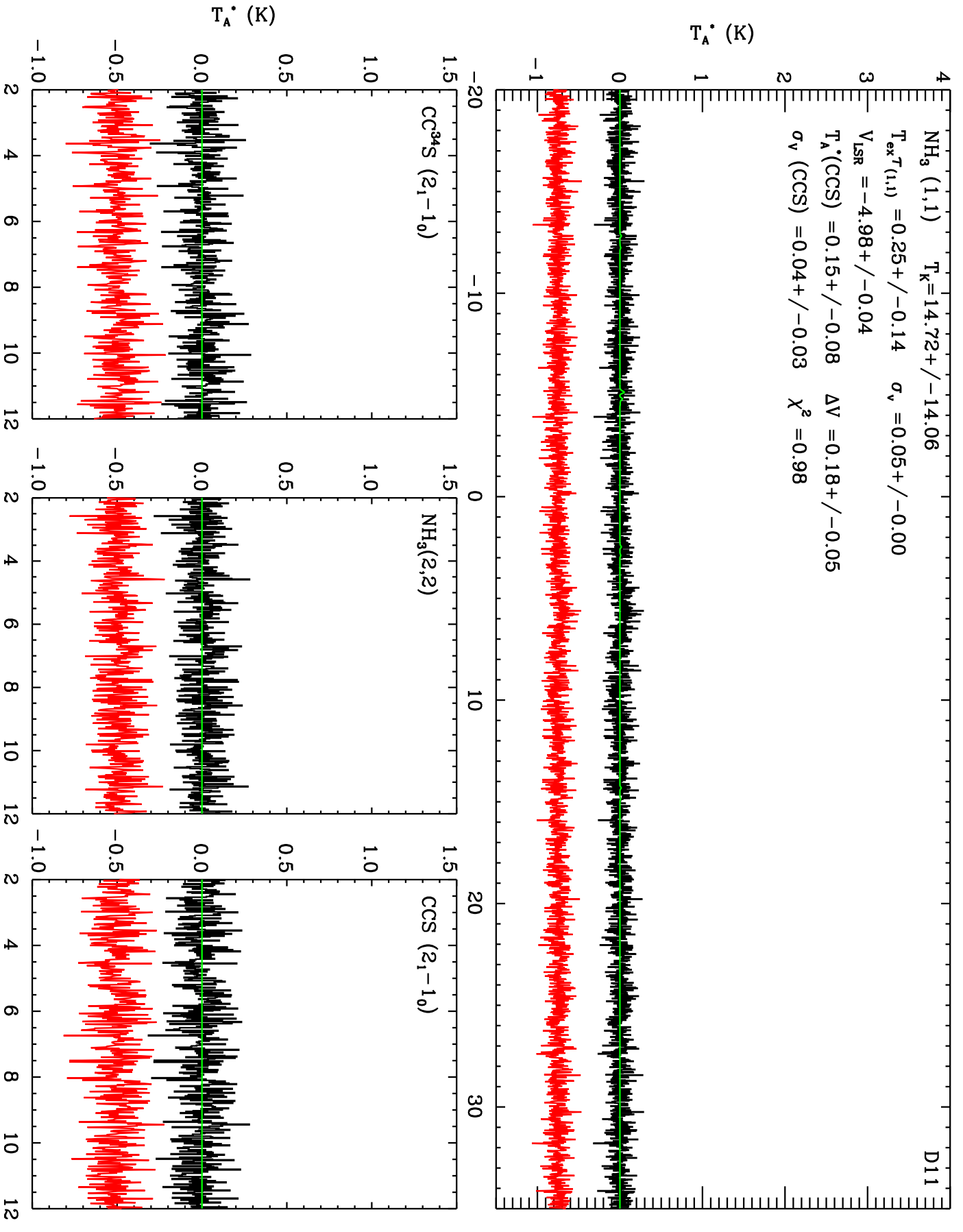
NH₃ (1,1) T_K = 14.72 ± -14.06

T_{ex}^{T(1,1)} = 0.25 ± -0.14 σ_v = 0.05 ± -0.00

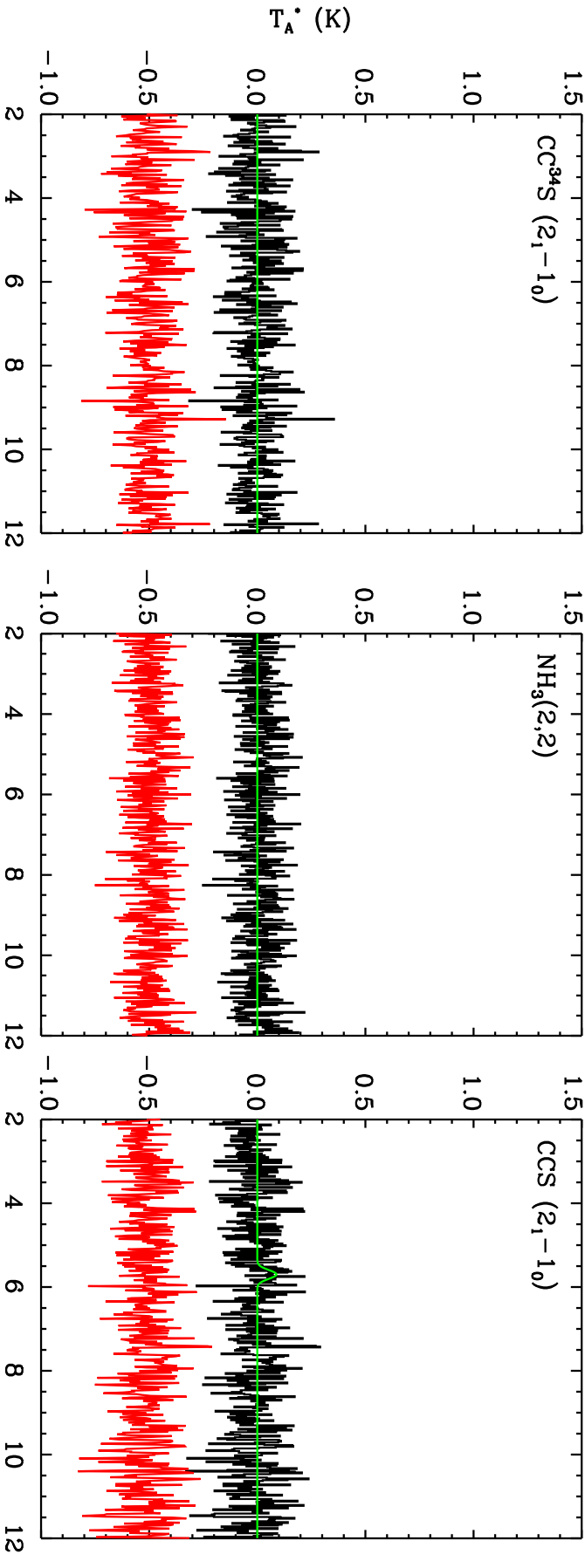
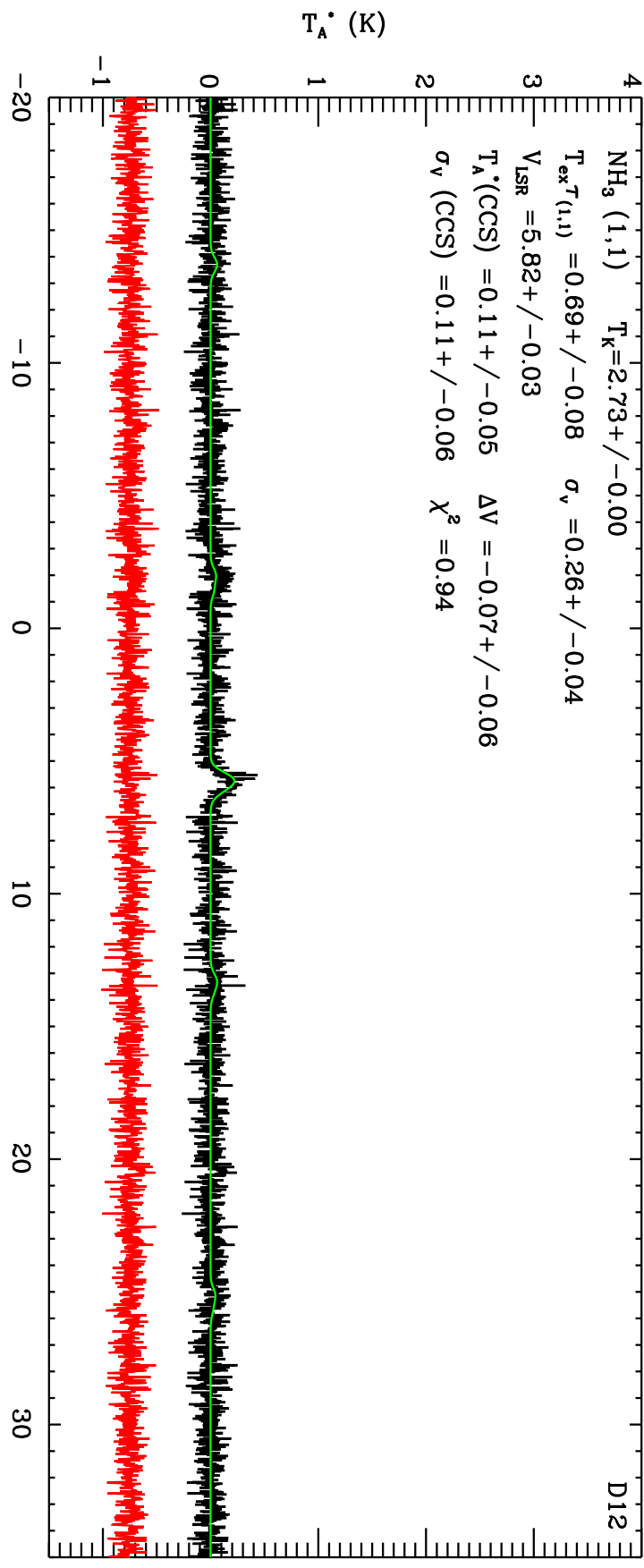
V_{LSR} = -4.98 ± -0.04

T_A^{*}(CCS) = 0.15 ± -0.08 ΔV = 0.18 ± -0.05

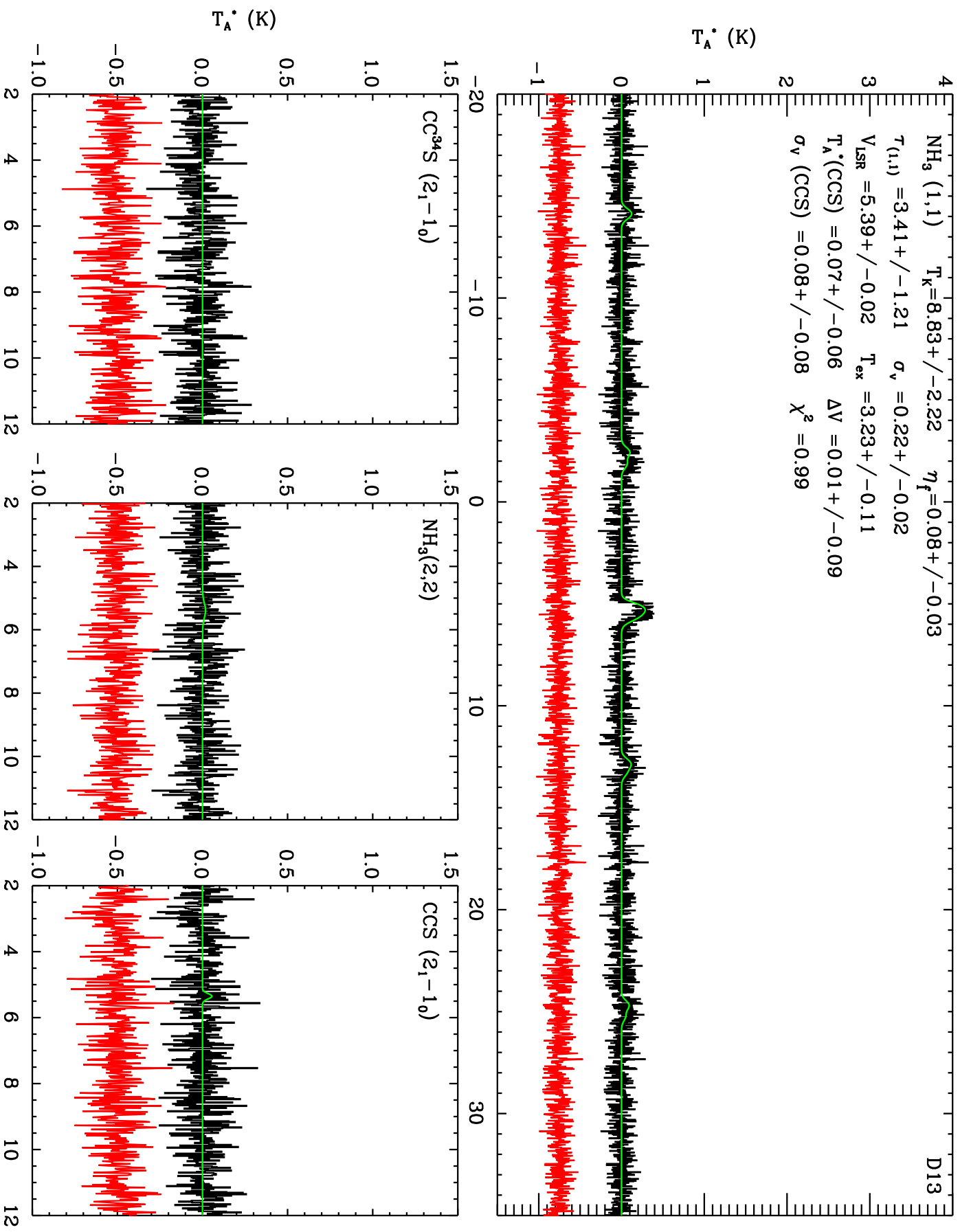
σ_v (CCS) = 0.04 ± -0.03 χ² = 0.98



$\text{NH}_3(1,1) \quad T_K = 2.73 \pm 0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.69 \pm 0.08 \quad \sigma_v = 0.26 \pm 0.04$
 $V_{\text{LSR}} = 5.82 \pm 0.03$
 $T_A^*(\text{CCS}) = 0.11 \pm 0.05 \quad \Delta V = -0.07 \pm 0.06$
 $\sigma_v(\text{CCS}) = 0.11 \pm 0.06 \quad \chi^2 = 0.94$



$\text{NH}_3(1,1)$ $T_K = 8.83 \pm 2.22$ $\eta_f = 0.08 \pm 0.03$
 $T_{(1,1)} = 3.41 \pm 1.21$ $\sigma_v = 0.22 \pm 0.02$
 $V_{\text{LSR}} = 5.39 \pm 0.02$ $T_{\text{ex}} = 3.23 \pm 0.11$
 $T_A^*(\text{CCS}) = 0.07 \pm 0.06$ $\Delta V = 0.01 \pm 0.09$
 $\sigma_v(\text{CCS}) = 0.08 \pm 0.08$ $\chi^2 = 0.99$



D14

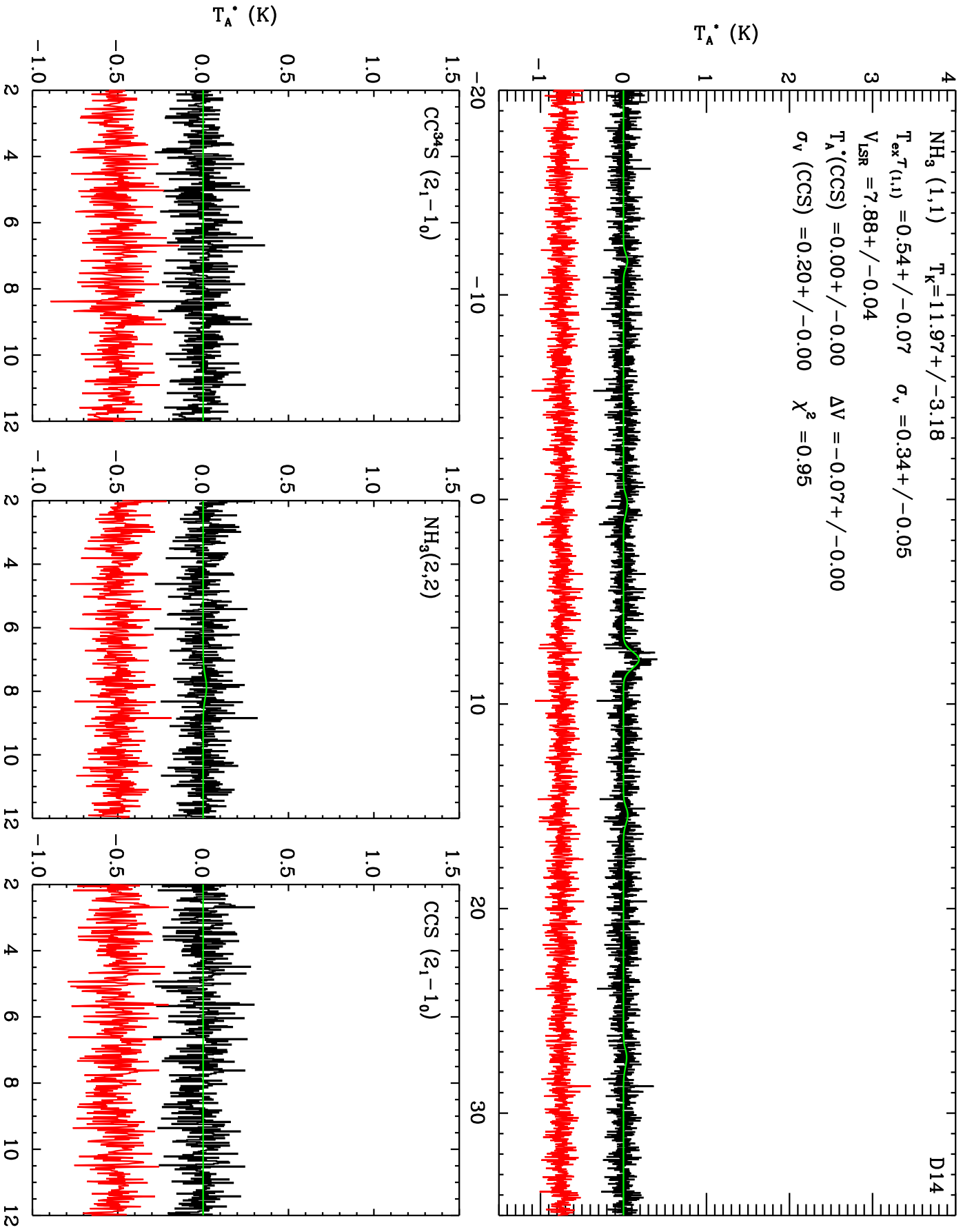
NH₃ (1,1) T_K=11.97+/-3.18

T_{ex}^{T(1,1)} = 0.54+/-0.07 σ_v = 0.34+/-0.05

V_{LSR} = 7.88+/-0.04

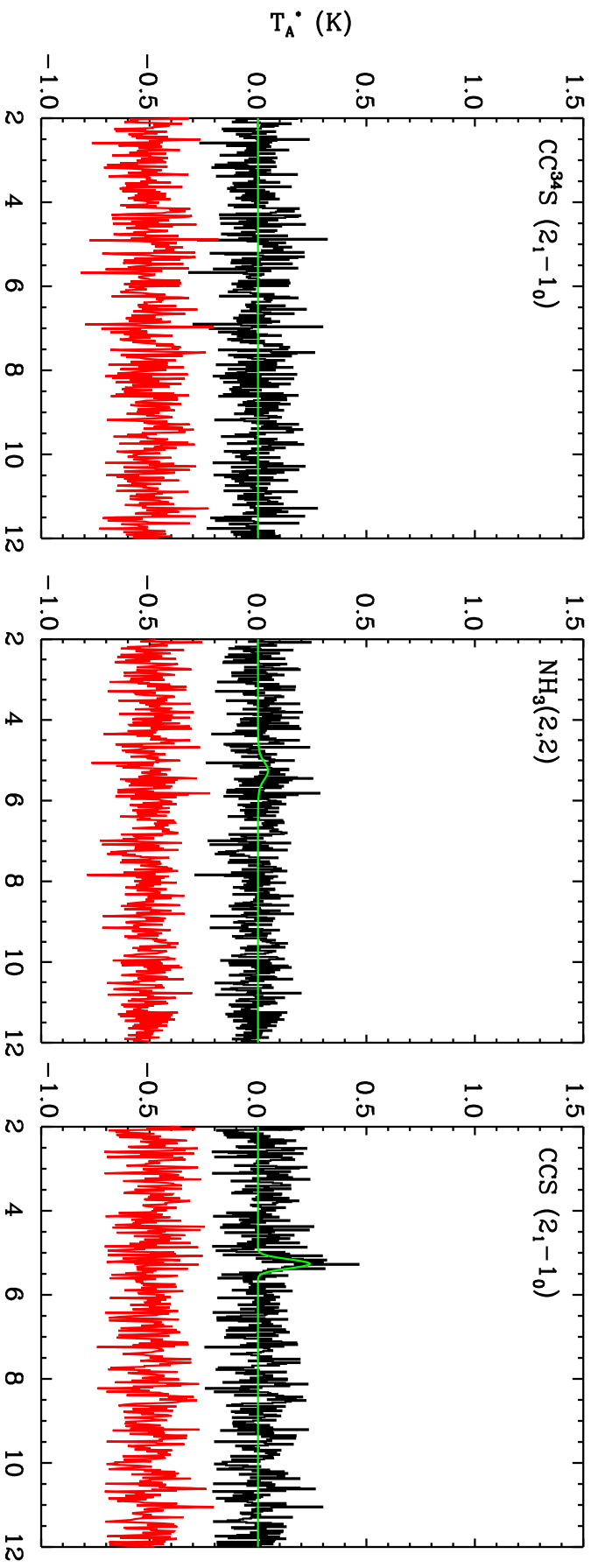
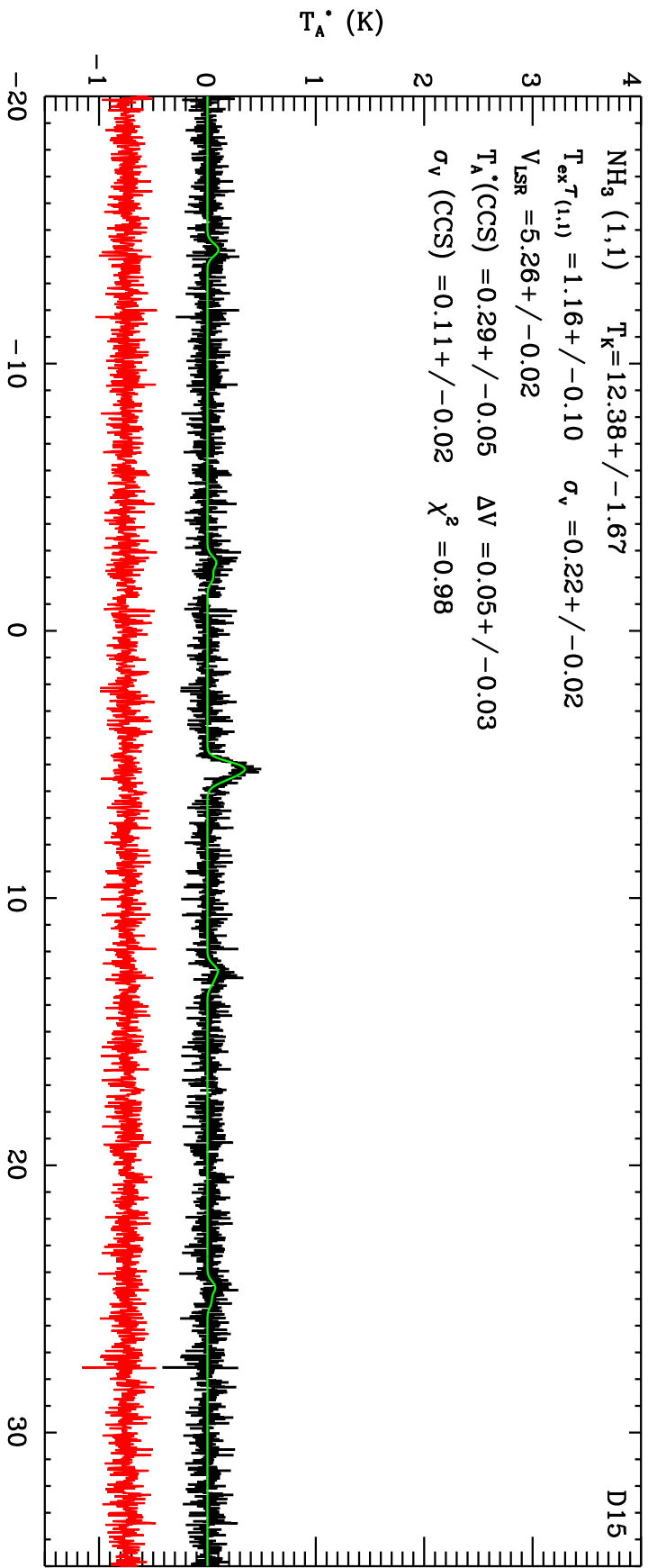
T_A^{*}(CCS) = 0.00+/-0.00 ΔV = -0.07+/-0.00

σ_v (CCS) = 0.20+/-0.00 χ² = 0.95



D15

$\text{NH}_3(1,1)$ $T_K = 12.38 + / - 1.67$
 $T_{\text{ex}}^{T(1,1)} = 1.16 + / - 0.10$ $\sigma_v = 0.22 + / - 0.02$
 $V_{\text{LSR}} = 5.26 + / - 0.02$
 $T_A^*(\text{CCS}) = 0.29 + / - 0.05$ $\Delta V = 0.05 + / - 0.03$
 $\sigma_v(\text{CCS}) = 0.11 + / - 0.02$ $\chi^2 = 0.98$



D16

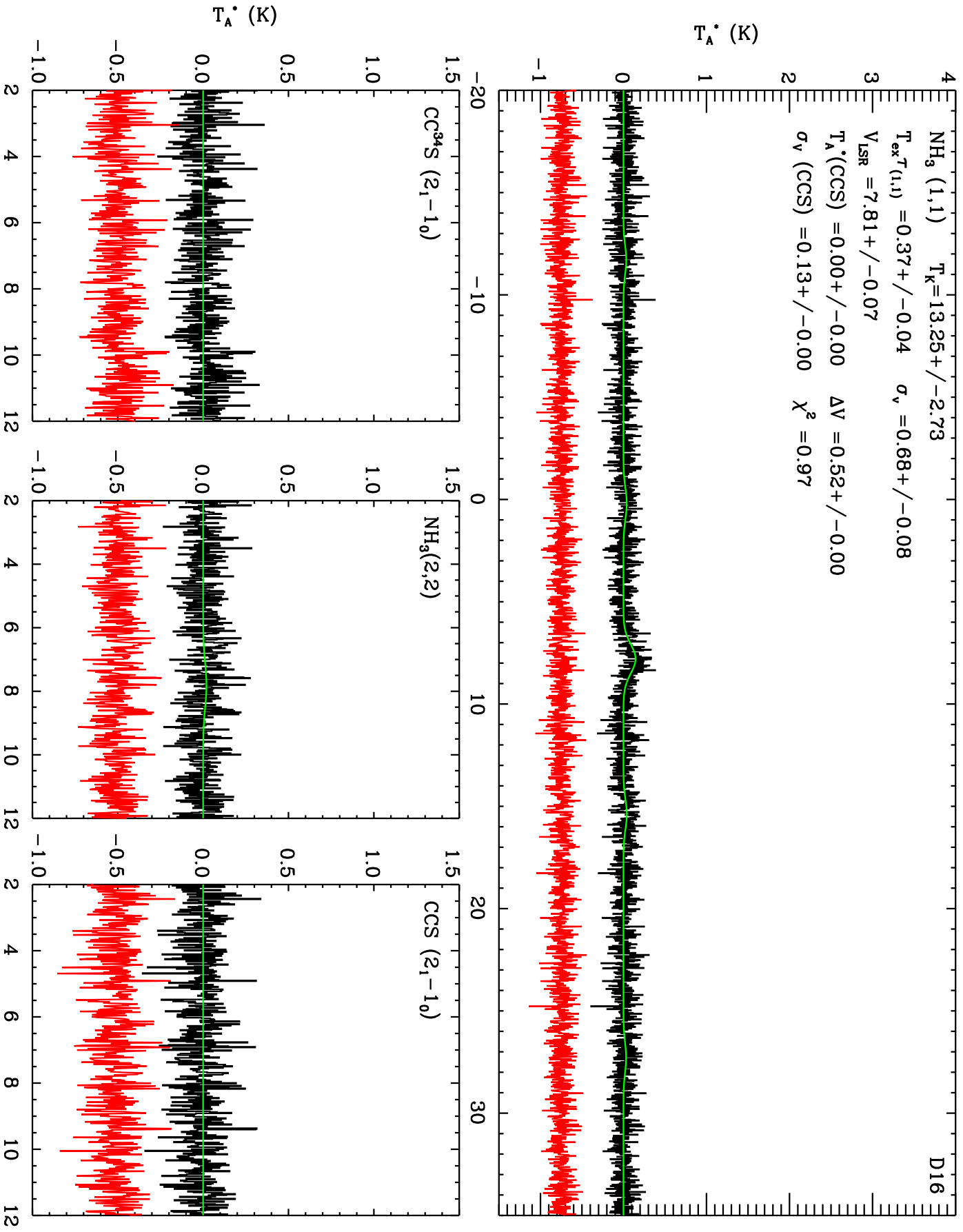
NH₃ (1,1) T_K = 13.25 ± 2.73

T_{ex}^{T(1,1)} = 0.37 ± 0.04 σ_v = 0.68 ± 0.08

V_{LSR} = 7.81 ± 0.07

T_A^{*}(CCS) = 0.00 ± 0.00 ΔV = 0.52 ± 0.00

σ_v (CCS) = 0.13 ± 0.00 χ² = 0.97



D17

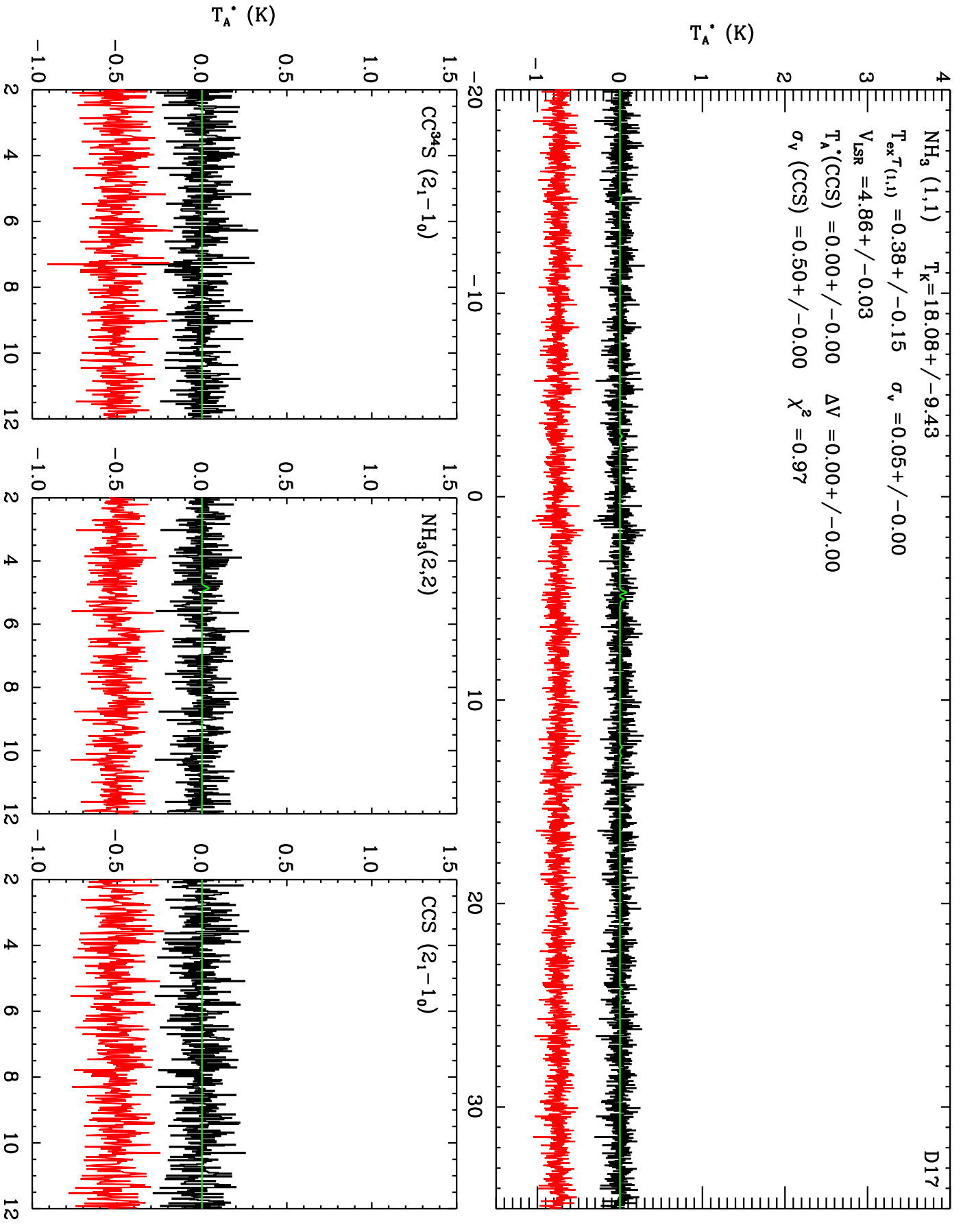
NH₃ (1,1) T_K = 18.08 ± 9.43

T_{ex}^{T(1,1)} = 0.38 ± 0.15 σ_v = 0.05 ± 0.00

V_{LSR} = 4.86 ± 0.03

T_A^{*}(CCS) = 0.00 ± 0.00 ΔV = 0.00 ± 0.00

σ_v (CCS) = 0.50 ± 0.00 χ² = 0.97



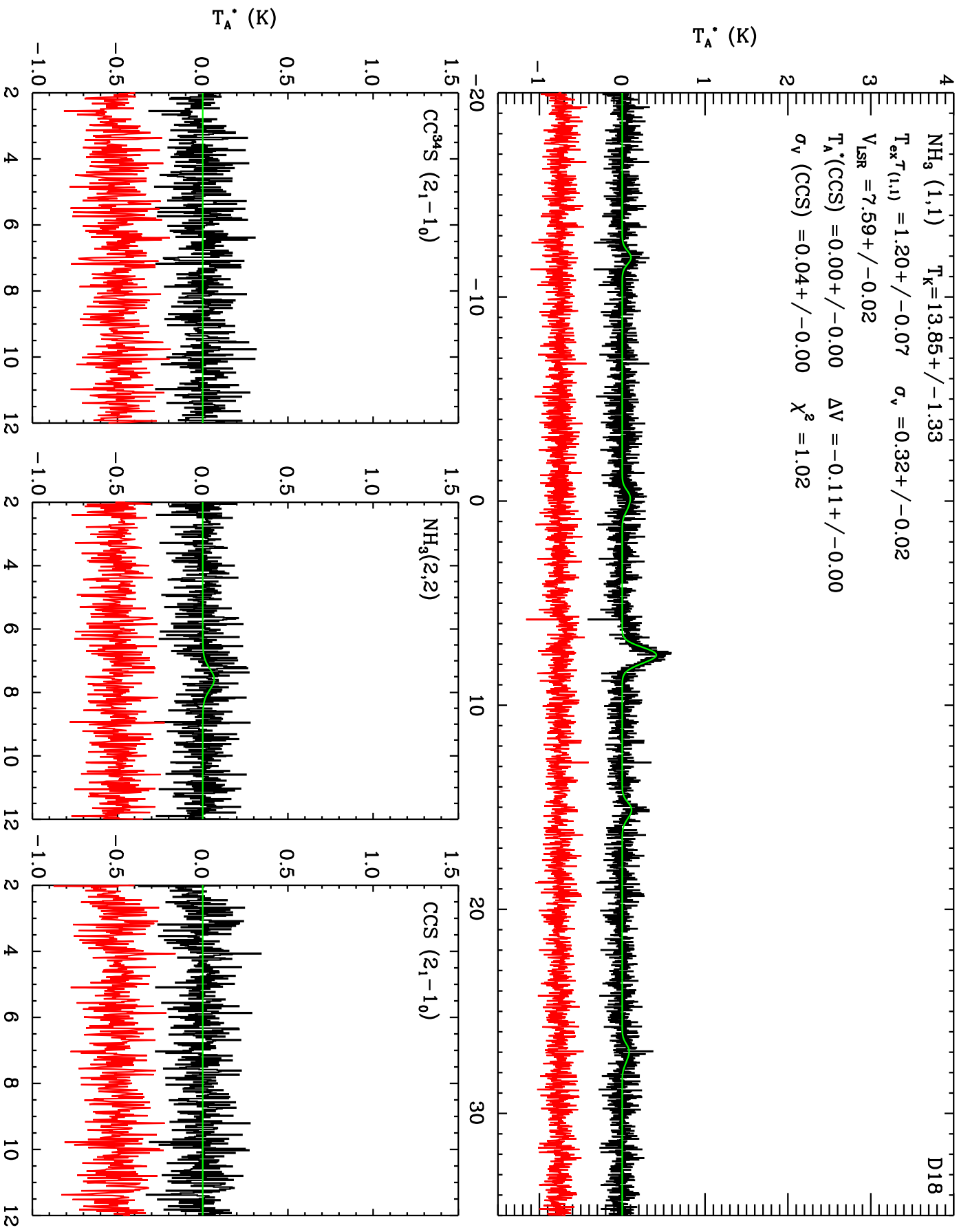
$\text{NH}_3(1,1)$ $T_K = 13.85 \pm 1.33$

$T_{\text{ex}}^{T(1,1)} = 1.20 \pm 0.07$ $\sigma_v = 0.32 \pm 0.02$

$V_{\text{LSR}} = 7.59 \pm 0.02$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.11 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 1.02$



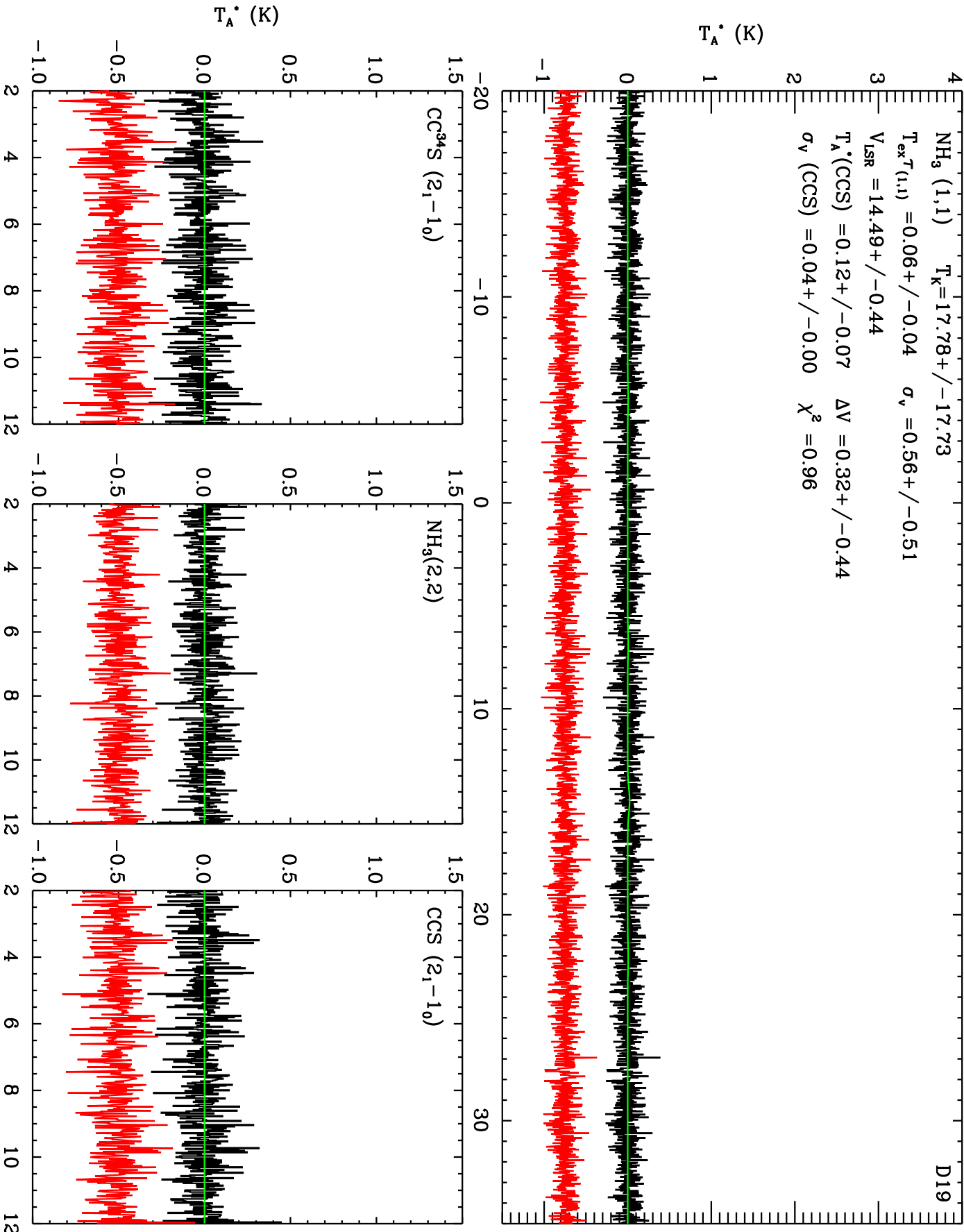
NH₃ (1,1) T_K = 17.78 ± -17.73

T_{ex}^{T(1,1)} = 0.06 ± -0.04 σ_v = 0.56 ± -0.51

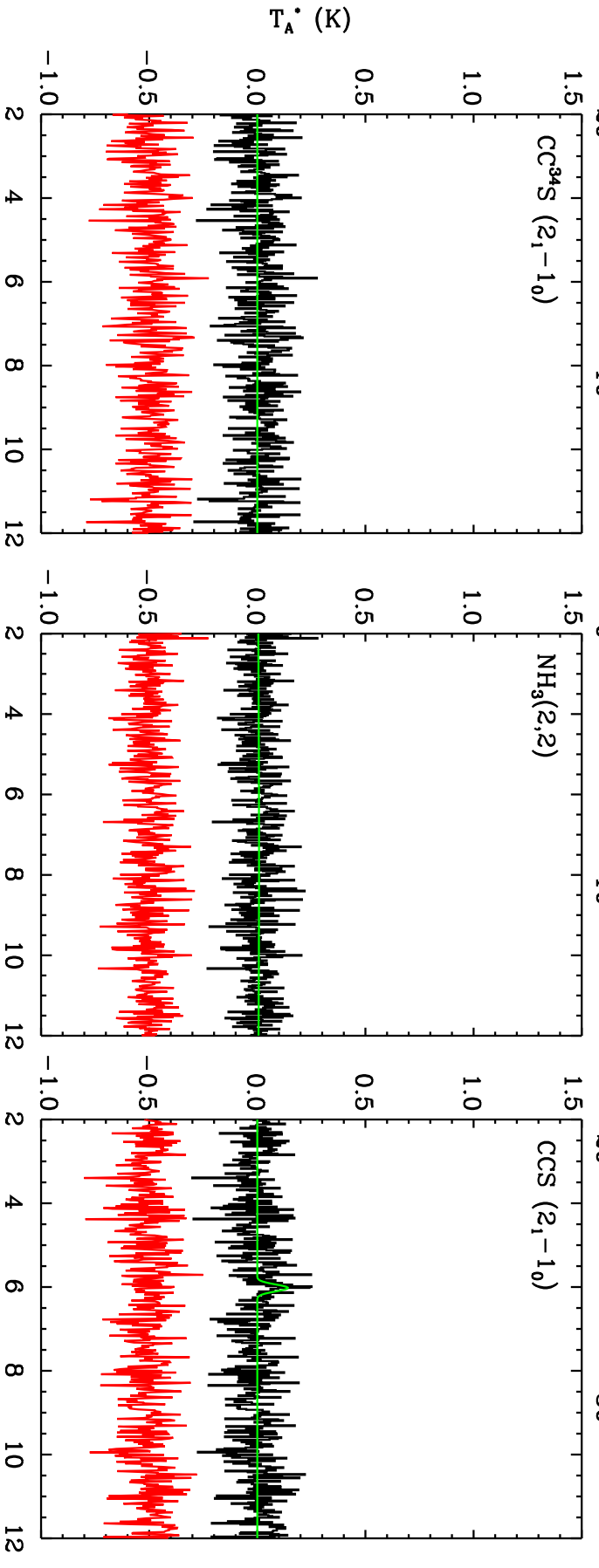
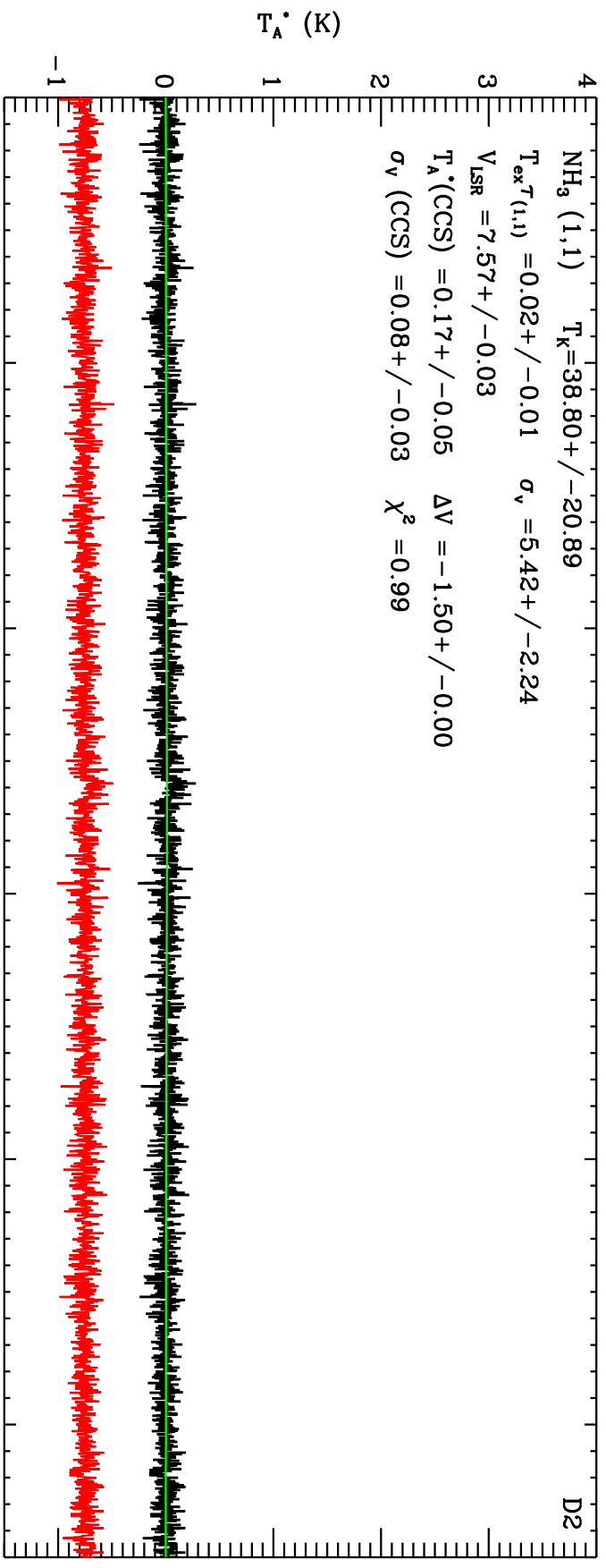
V_{LSR} = 14.49 ± -0.44

T_A^{*}(CCS) = 0.12 ± -0.07 ΔV = 0.32 ± -0.44

σ_v (CCS) = 0.04 ± -0.00 χ² = 0.96

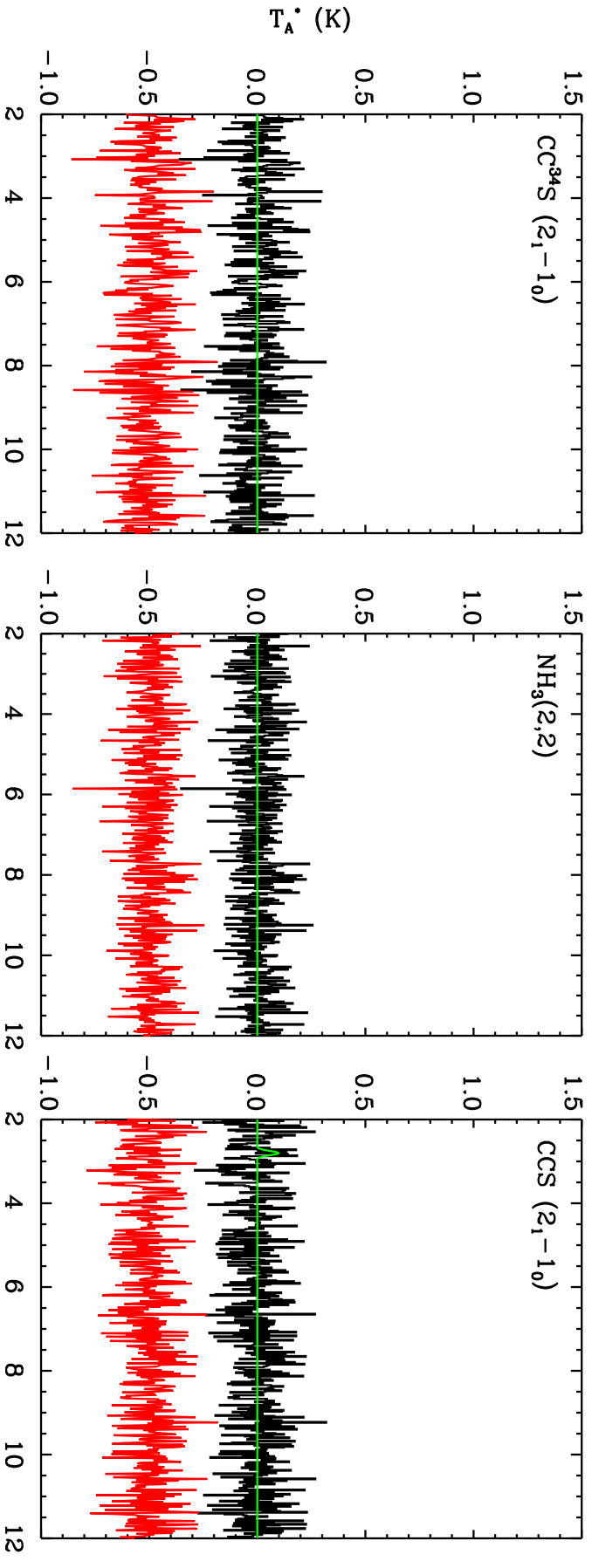
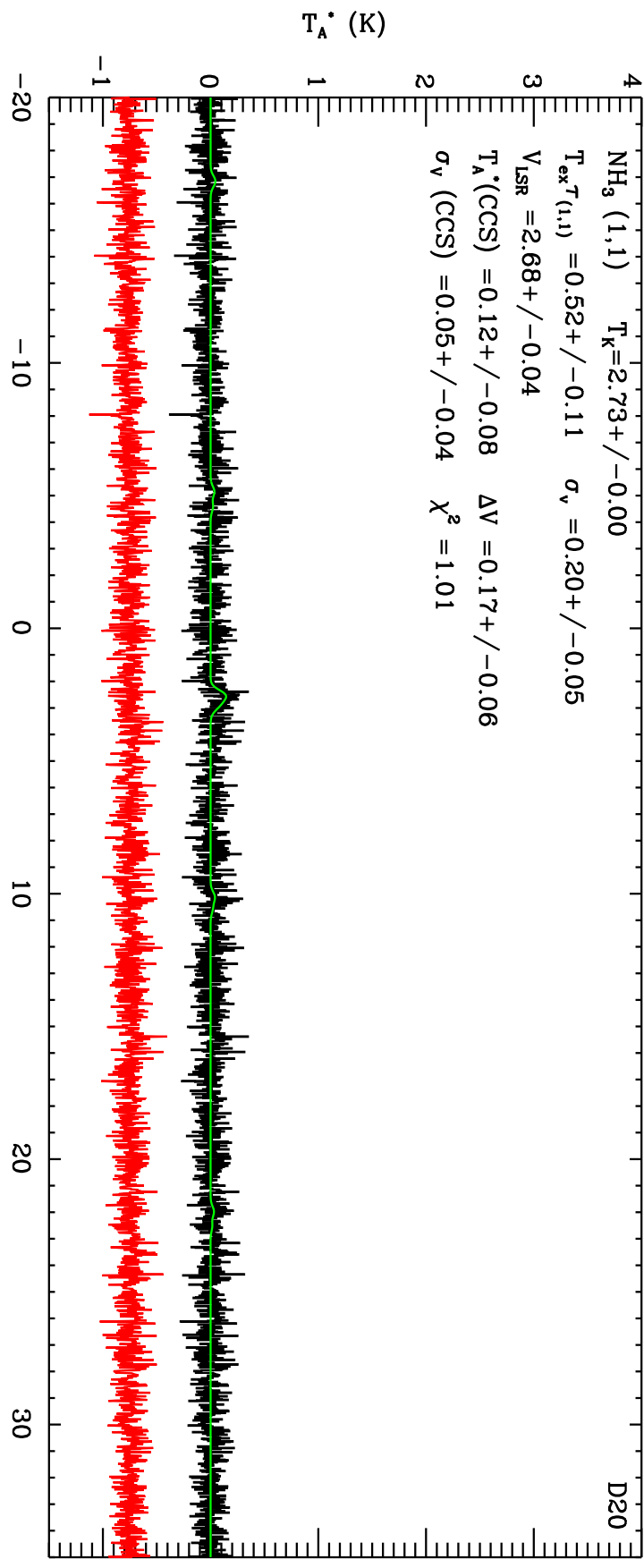


$\text{NH}_3(1,1) \quad T_K = 38.80 + / - 20.89$
 $T_{\text{ex}}^{T(1,1)} = 0.02 + / - 0.01 \quad \sigma_v = 5.42 + / - 2.24$
 $V_{\text{LSR}} = 7.57 + / - 0.03$
 $T_A^*(\text{CCS}) = 0.17 + / - 0.05 \quad \Delta V = -1.50 + / - 0.00$
 $\sigma_v(\text{CCS}) = 0.08 + / - 0.03 \quad \chi^2 = 0.99$



D20

$\text{NH}_3(1,1) \quad T_K = 2.73 + / - 0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.52 + / - 0.11 \quad \sigma_v = 0.20 + / - 0.05$
 $V_{\text{LSR}} = 2.68 + / - 0.04$
 $T_A^*(\text{CCS}) = 0.12 + / - 0.08 \quad \Delta V = 0.17 + / - 0.06$
 $\sigma_v(\text{CCS}) = 0.05 + / - 0.04 \quad \chi^2 = 1.01$



D21

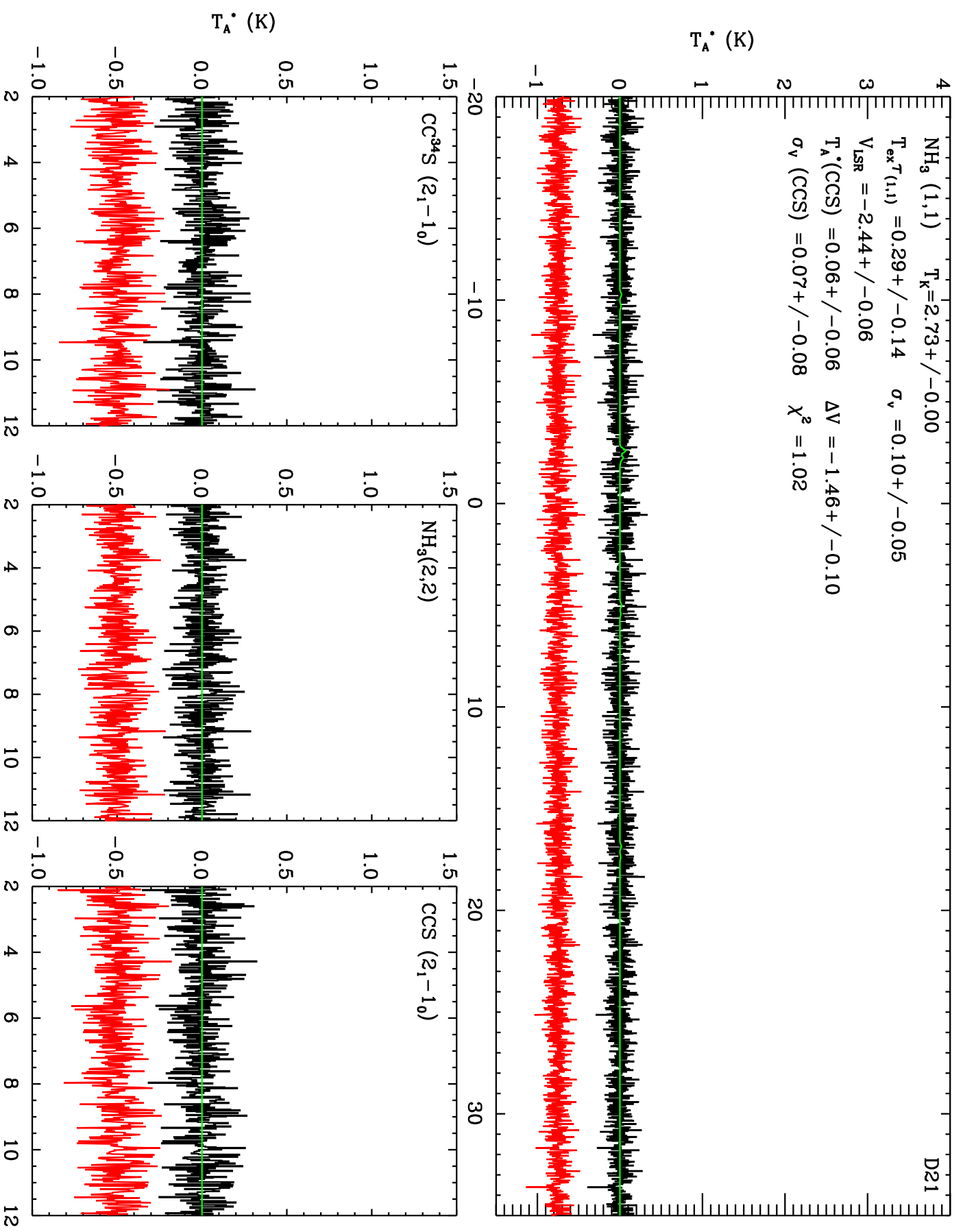
NH₃ (1,1) $T_K = 2.73 \pm 0.00$

$T_{\text{ex}}^{T(1,1)} = 0.29 \pm 0.14$ $\sigma_v = 0.10 \pm 0.05$

$V_{\text{LSR}} = -2.44 \pm 0.06$

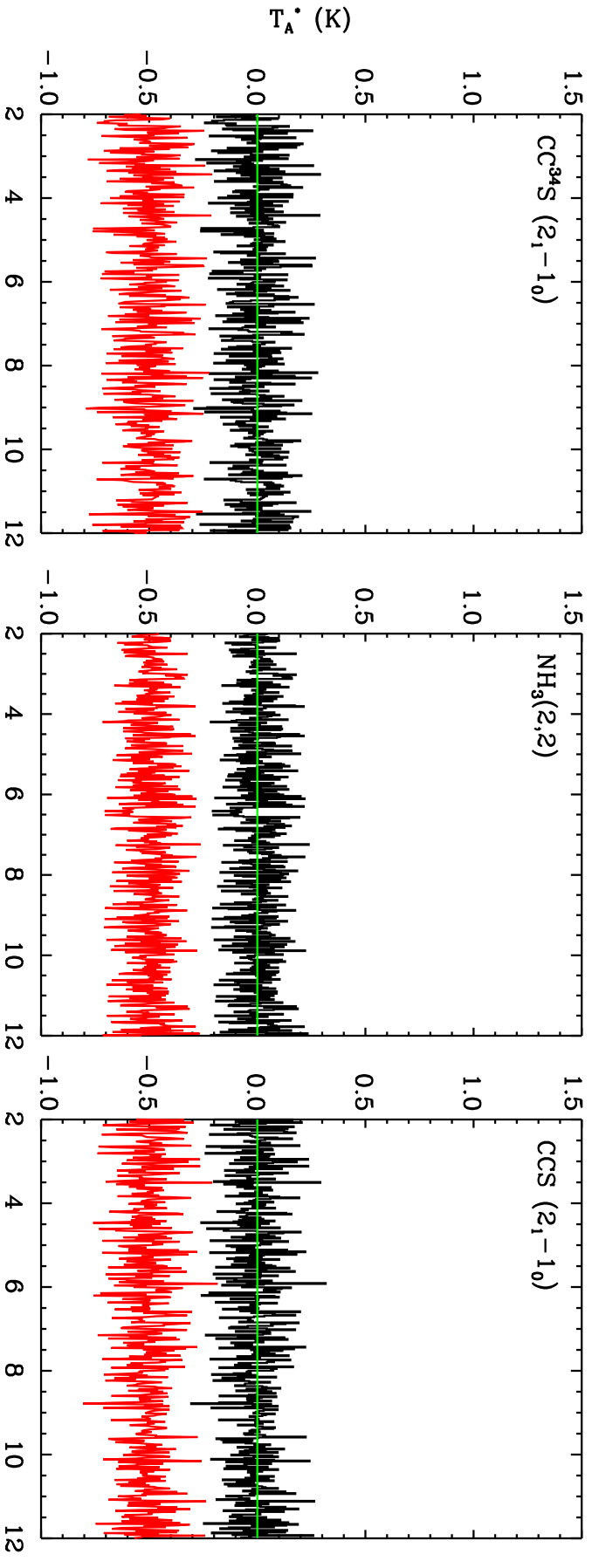
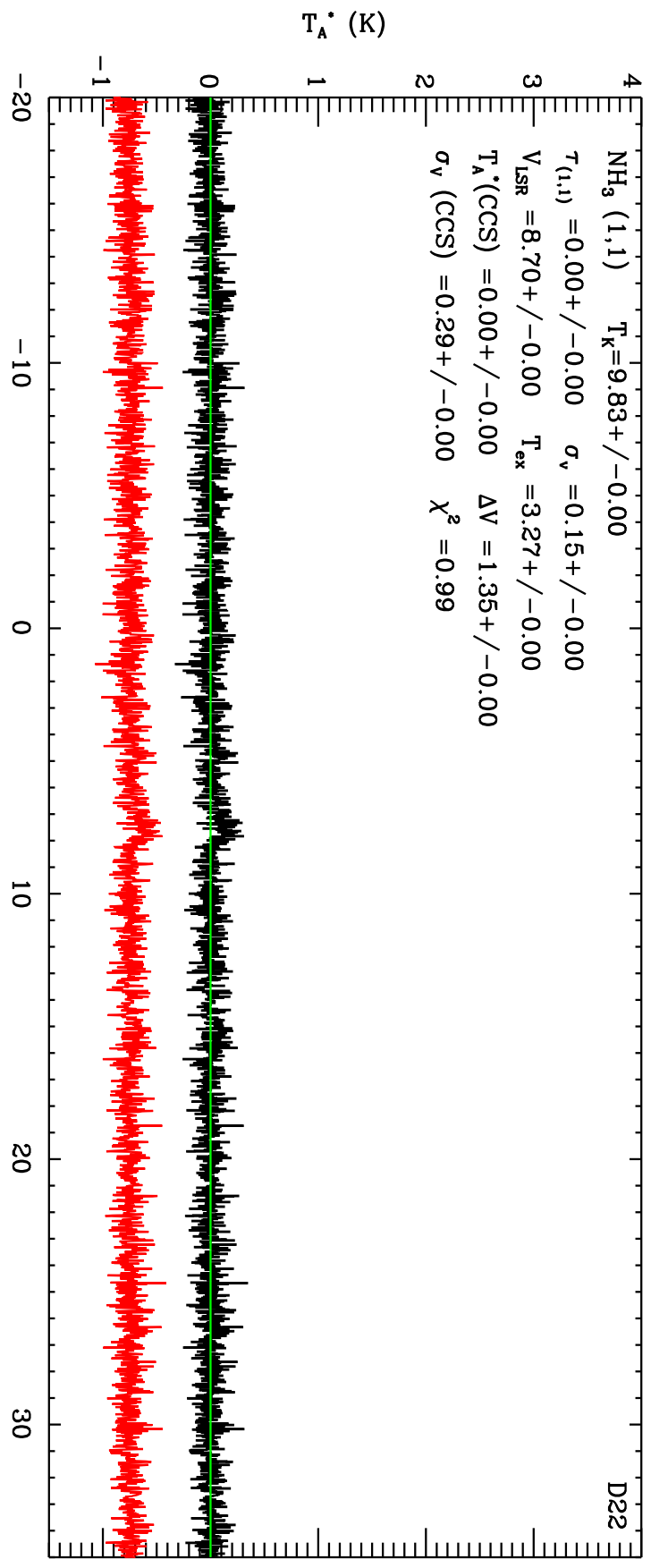
$T_A^*(\text{CCS}) = 0.06 \pm 0.06$ $\Delta V = -1.46 \pm 0.10$

$\sigma_v(\text{CCS}) = 0.07 \pm 0.08$ $\chi^2 = 1.02$



D22

$\text{NH}_3(1,1) \quad T_K = 9.83 + / - 0.00$
 $T_{(1,1)} = 0.00 + / - 0.00 \quad \sigma_v = 0.15 + / - 0.00$
 $V_{\text{LSR}} = 8.70 + / - 0.00 \quad T_{\text{ex}} = 3.27 + / - 0.00$
 $T_A^*(\text{CCS}) = 0.00 + / - 0.00 \quad \Delta V = 1.35 + / - 0.00$
 $\sigma_v(\text{CCS}) = 0.29 + / - 0.00 \quad \chi^2 = 0.99$



D23

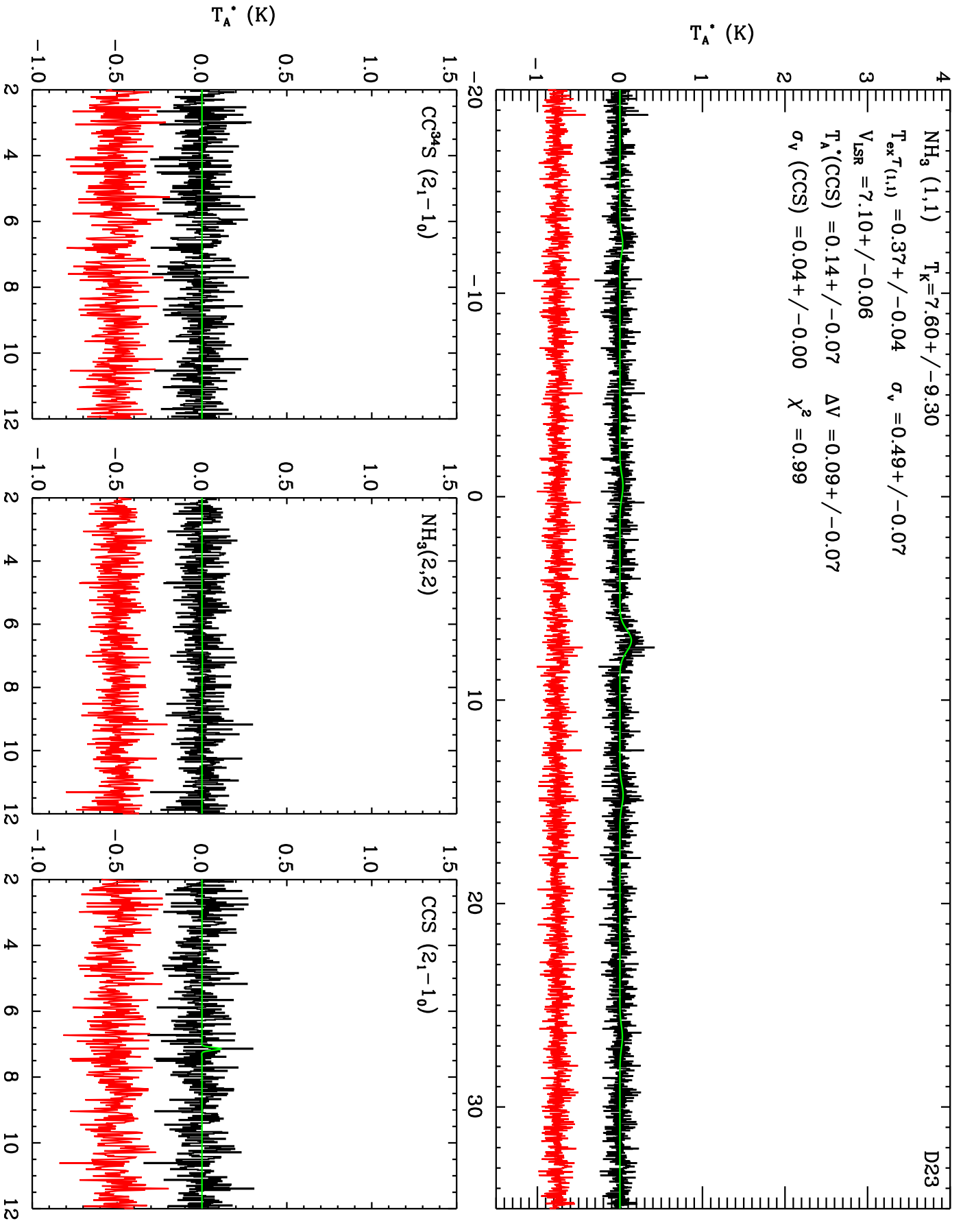
NH₃ (1,1) T_K=7.60+/-9.30

T_{ex}^{T(1,1)} = 0.37+/-0.04 σ_v = 0.49+/-0.07

V_{LSR} = 7.10+/-0.06

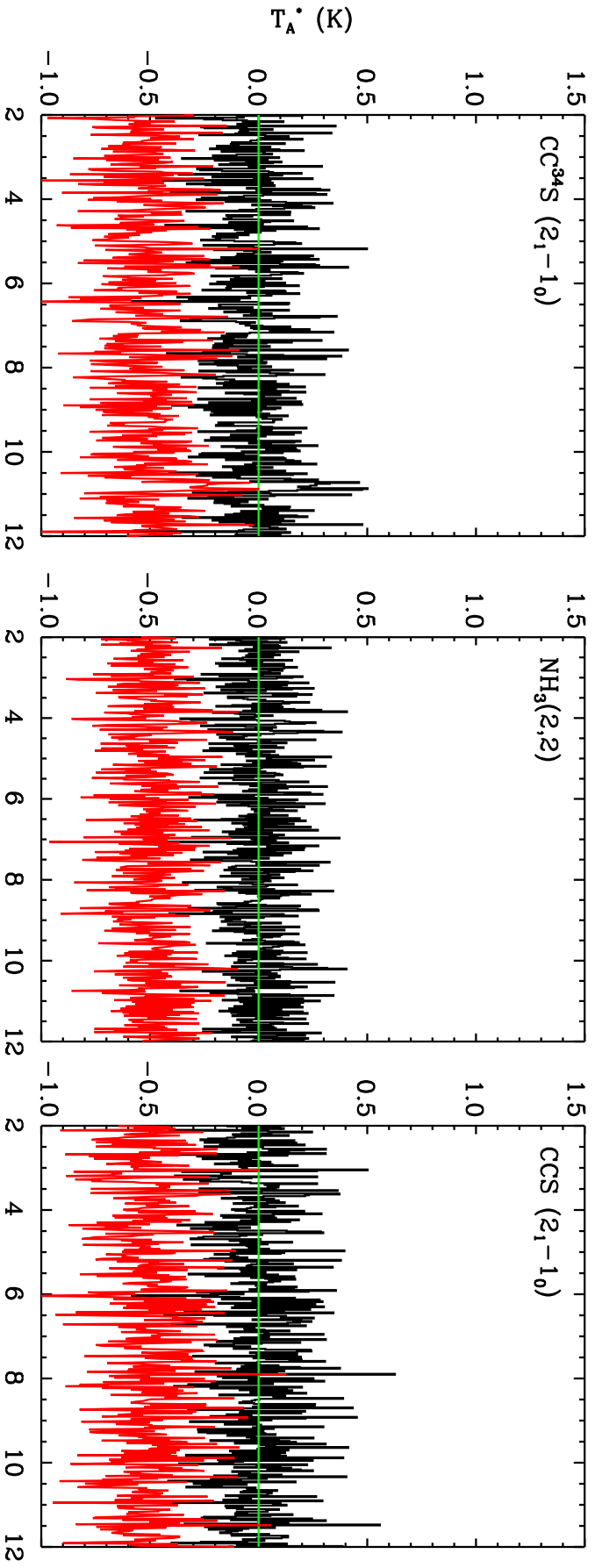
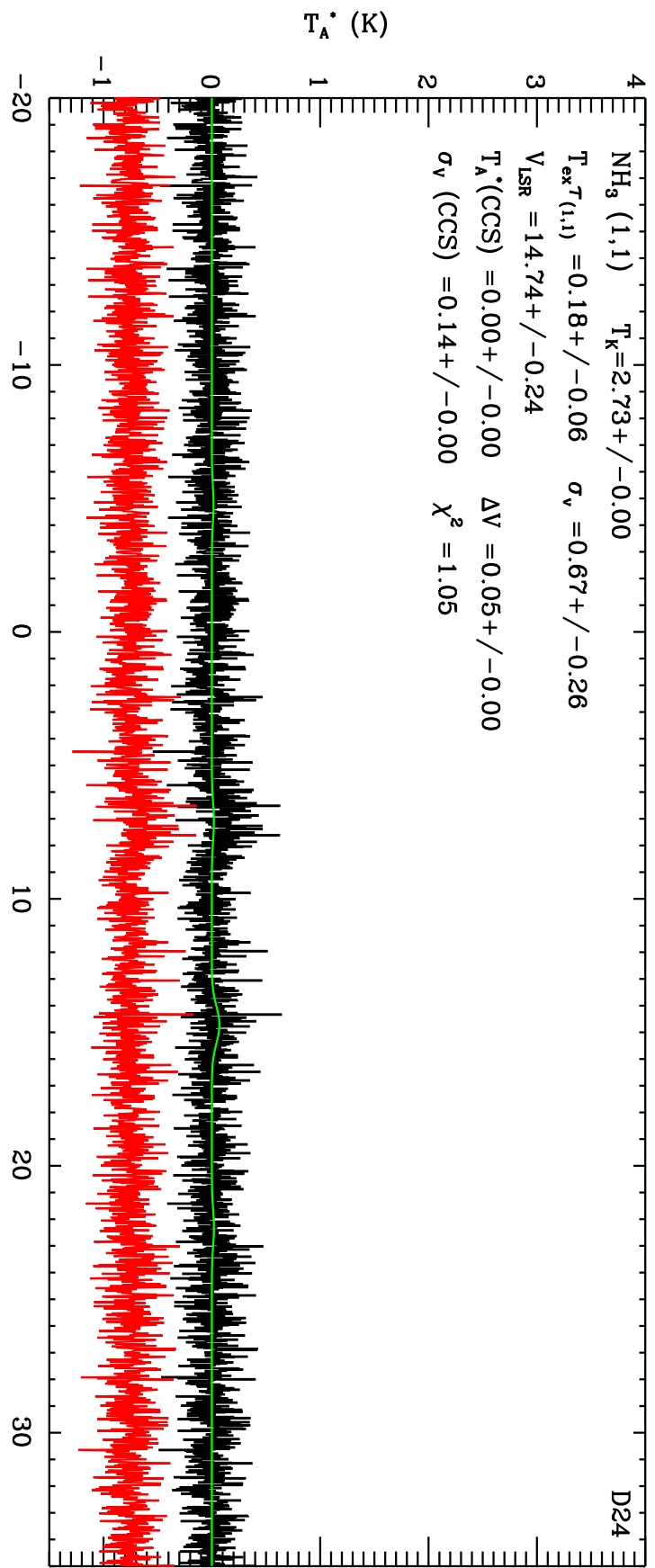
T_A^{*}(CCS) = 0.14+/-0.07 ΔV = 0.09+/-0.07

σ_v (CCS) = 0.04+/-0.00 χ² = 0.99



D24

$\text{NH}_3(1,1) \quad T_K = 2.73 + / - 0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.18 + / - 0.06 \quad \sigma_v = 0.67 + / - 0.26$
 $V_{\text{LSR}} = 14.74 + / - 0.24$
 $T_A^*(\text{CCS}) = 0.00 + / - 0.00 \quad \Delta V = 0.05 + / - 0.00$
 $\sigma_v(\text{CCS}) = 0.14 + / - 0.00 \quad \chi^2 = 1.05$



D25

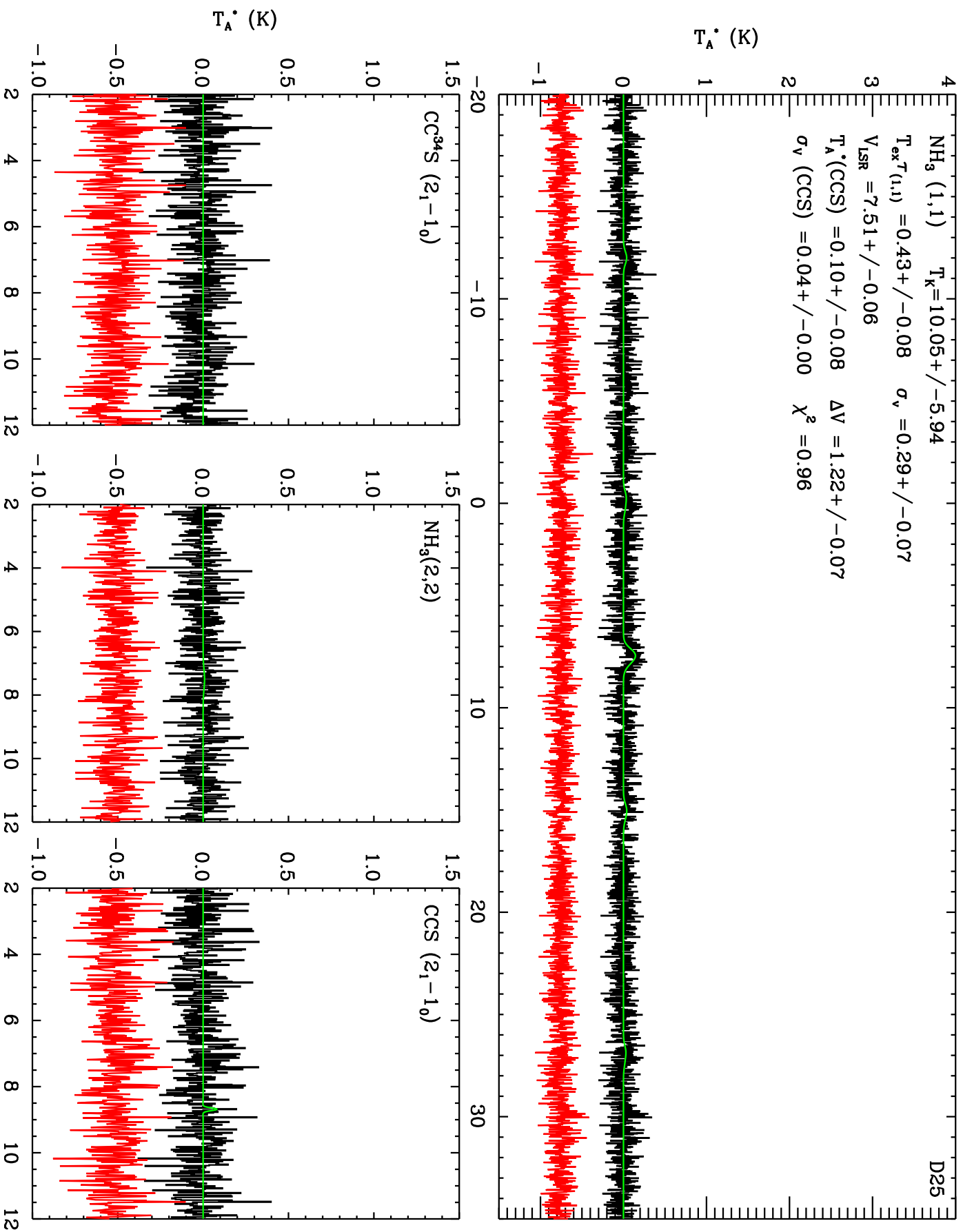
NH₃ (1,1) $T_K = 10.05 \pm 5.94$

$T_{\text{ex}}^{T(1,1)} = 0.43 \pm 0.08$ $\sigma_v = 0.29 \pm 0.07$

$V_{\text{LSR}} = 7.51 \pm 0.06$

$T_A^*(\text{CCS}) = 0.10 \pm 0.08$ $\Delta V = 1.22 \pm 0.07$

$\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 0.96$



D26

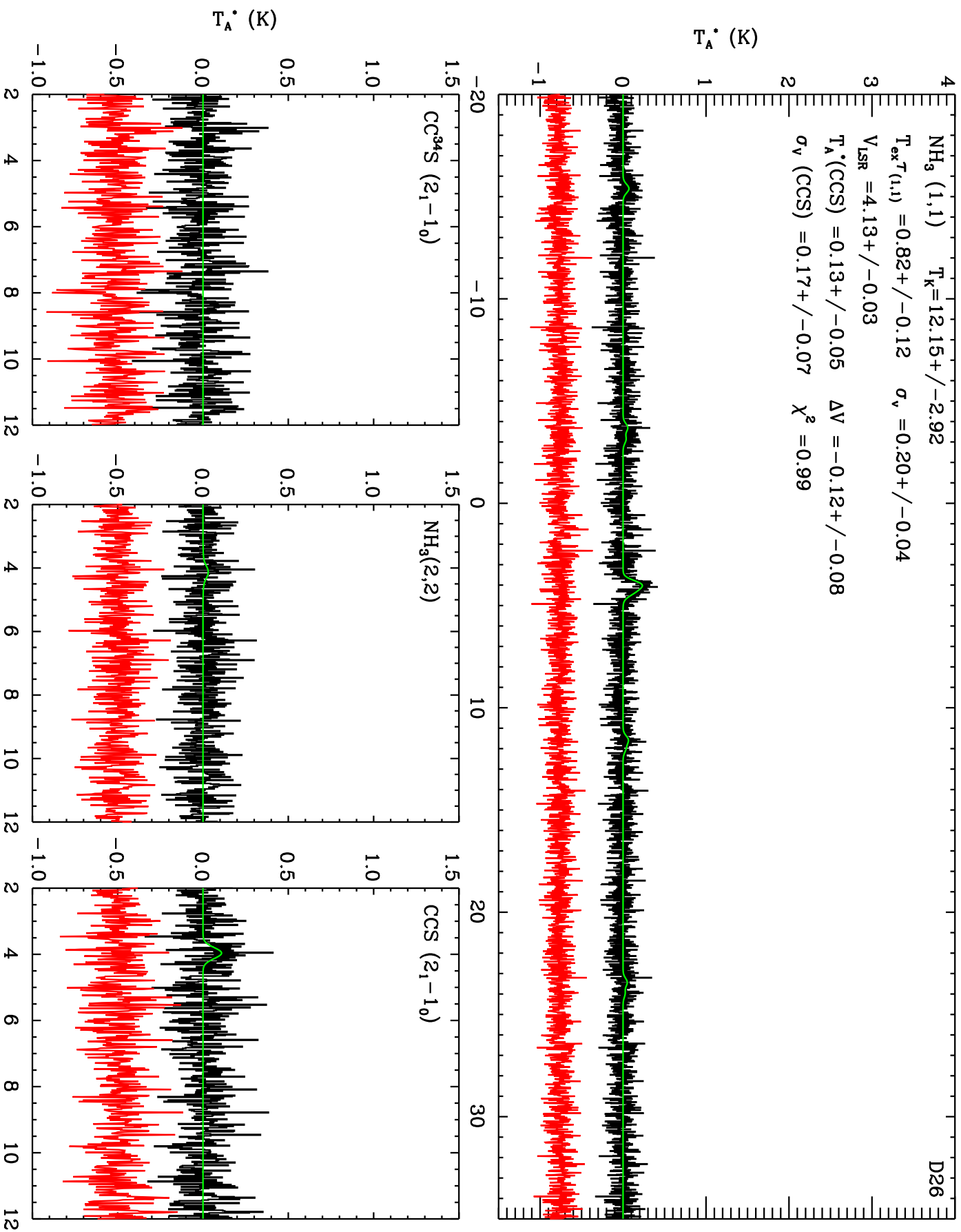
NH₃ (1,1) $T_K = 12.15 + / - 2.92$

$T_{\text{ex}}^{T(1,1)} = 0.82 + / - 0.12$ $\sigma_v = 0.20 + / - 0.04$

$V_{\text{LSR}} = 4.13 + / - 0.03$

$T_A^*(\text{CCS}) = 0.13 + / - 0.05$ $\Delta V = -0.12 + / - 0.08$

$\sigma_v(\text{CCS}) = 0.17 + / - 0.07$ $\chi^2 = 0.99$



D27

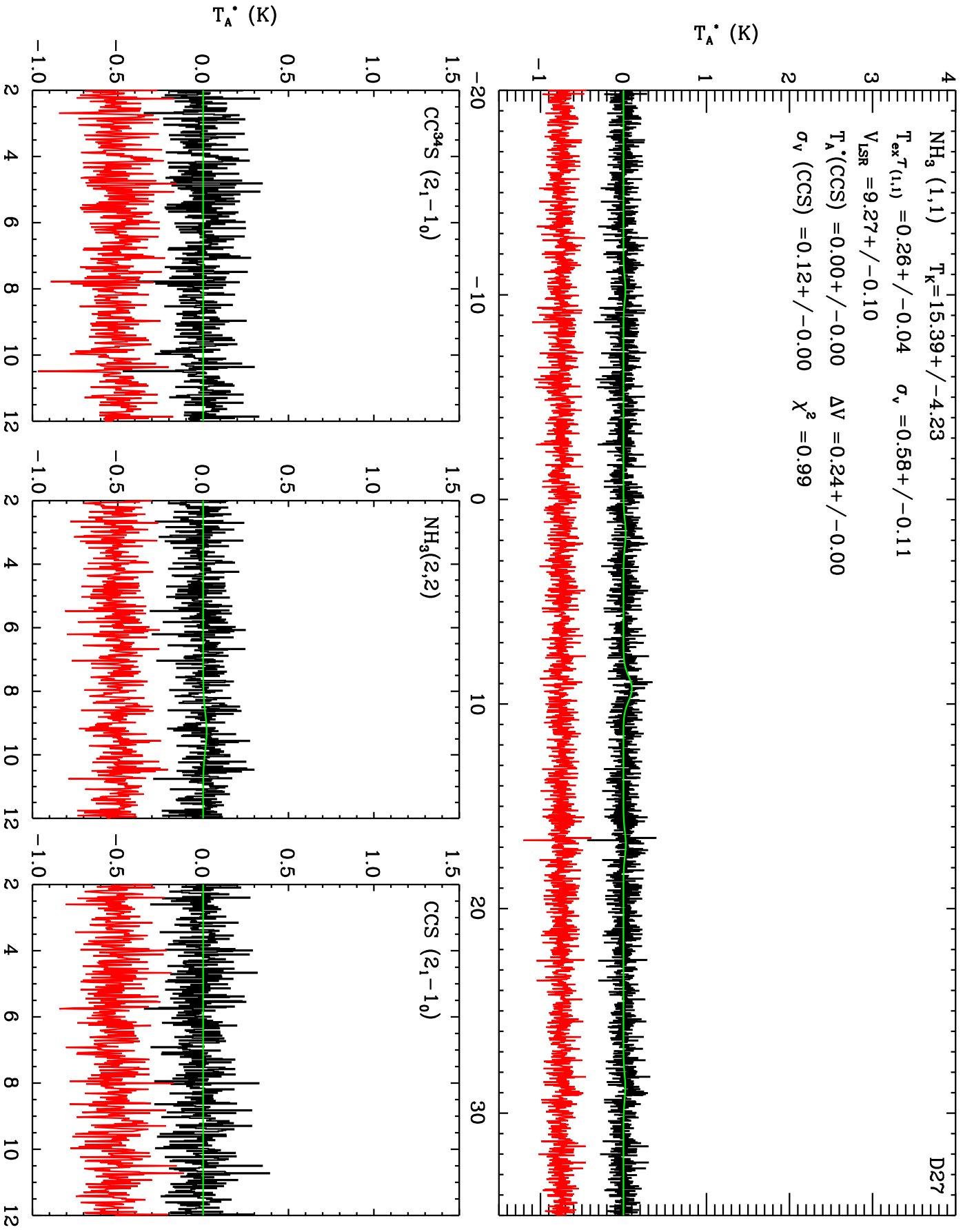
NH₃ (1,1) T_K=15.39+/-4.23

T_{ex}^{T(1,1)} = 0.26+/-0.04 σ_v = 0.58+/-0.11

V_{LSR} = 9.27+/-0.10

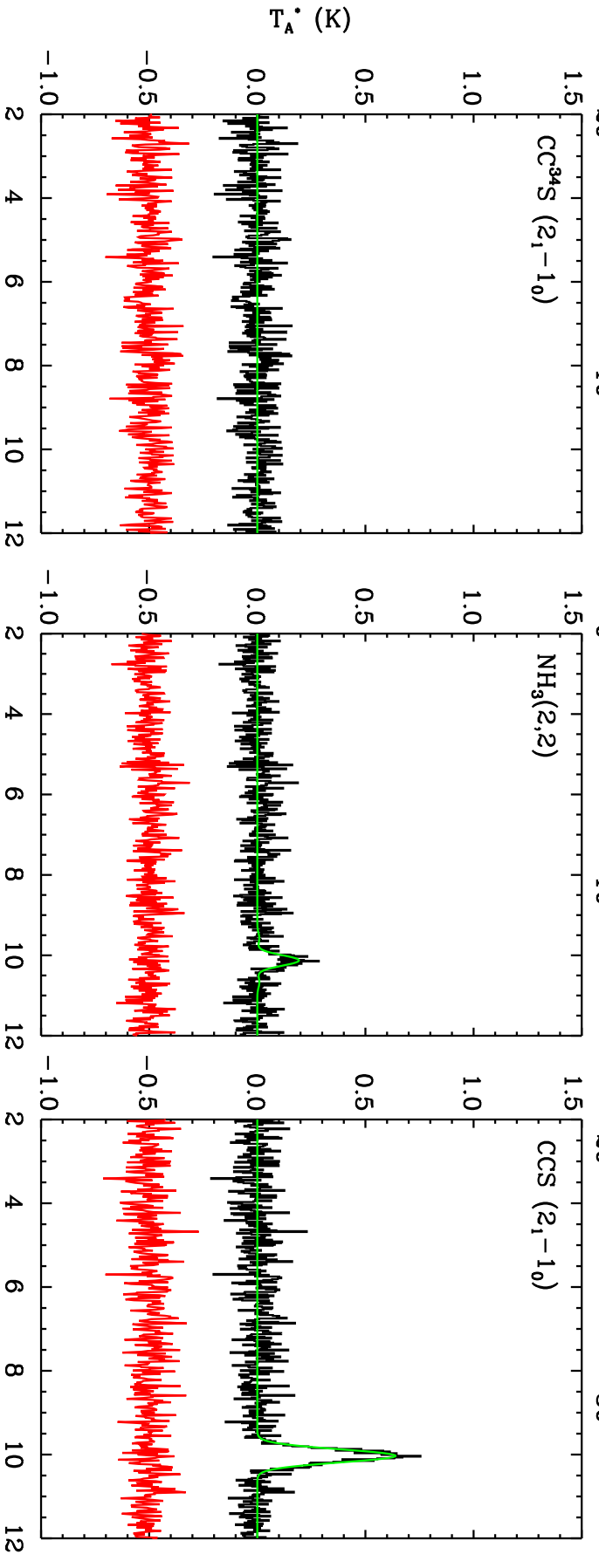
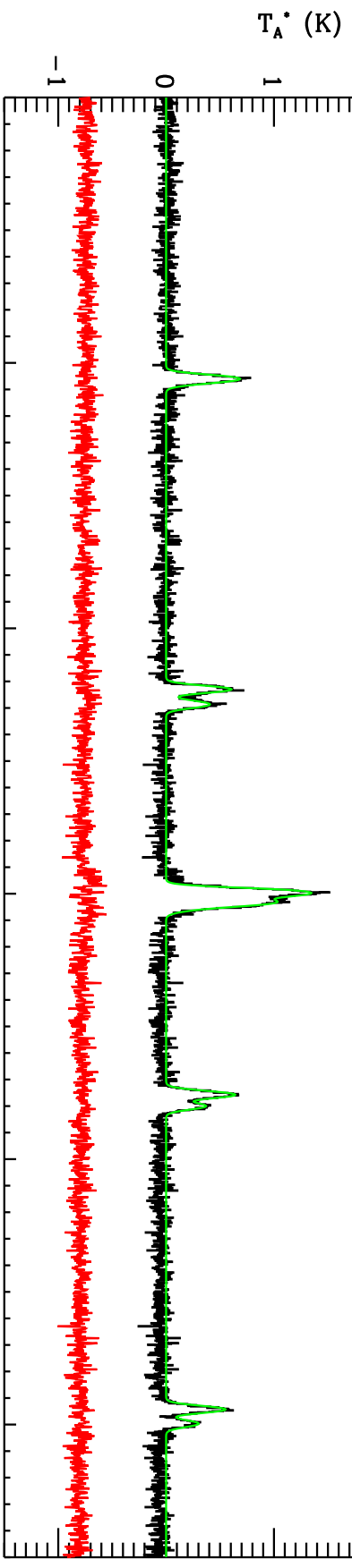
T_A^{*}(CCS) = 0.00+/-0.00 ΔV = 0.24+/-0.00

σ_v (CCS) = 0.12+/-0.00 χ² = 0.99



D28

$\text{NH}_3(1,1) \quad T_K = 10.02 \pm 0.22 \quad \eta_f = 0.29 \pm 0.01$
 $T_{(1,1)} = 5.21 \pm 0.28 \quad \sigma_v = 0.13 \pm 0.00$
 $V_{\text{LSR}} = 10.13 \pm 0.00 \quad T_{\text{ex}} = 4.85 \pm 0.07$
 $T_A^*(\text{CCS}) = 0.77 \pm 0.03 \quad \Delta V = -0.05 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.01 \quad \chi^2 = 0.94$



D29

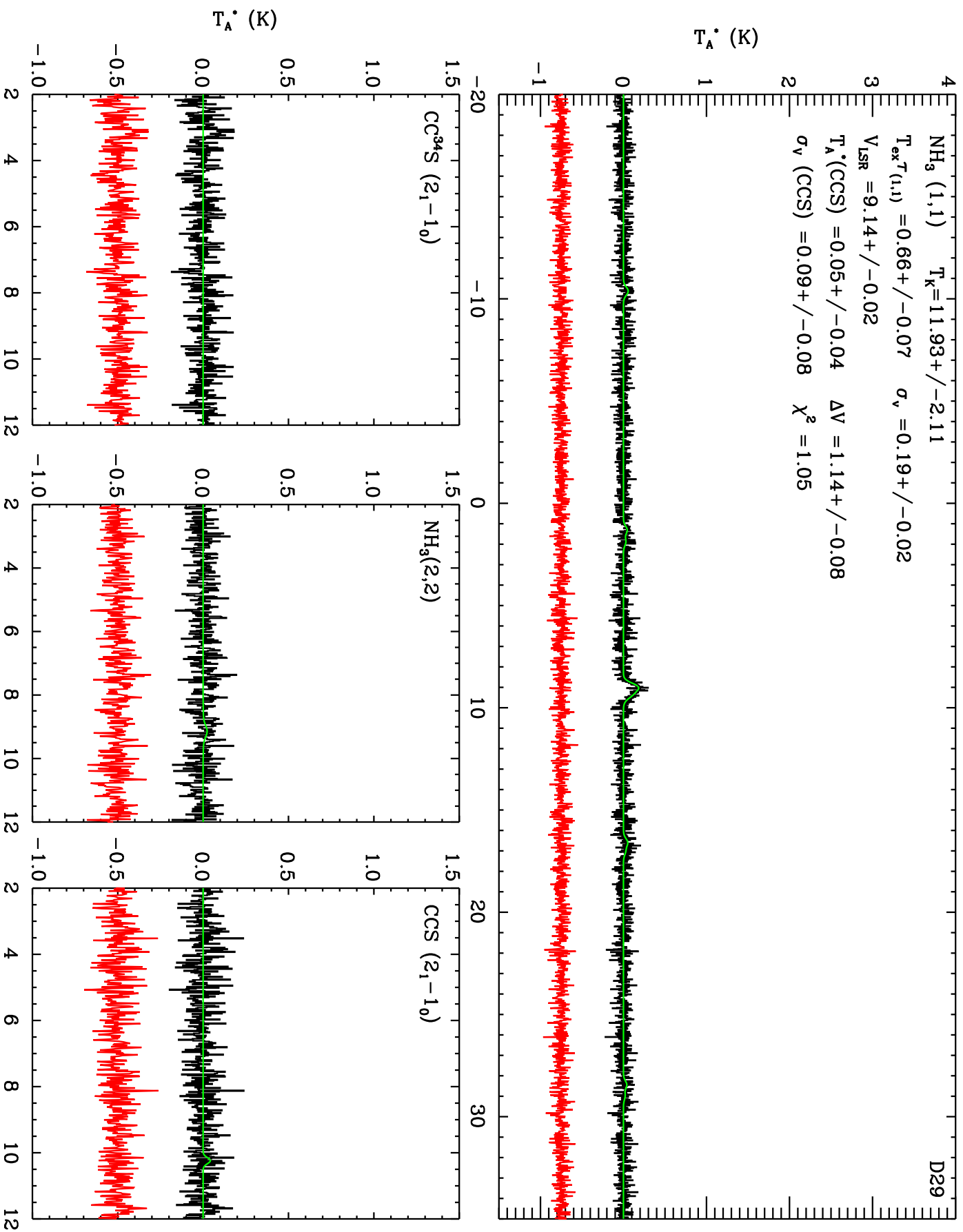
NH₃ (1,1) $T_K = 11.93 \pm 2.11$

$T_{\text{ex}}^{T(1,1)} = 0.66 \pm 0.07$ $\sigma_v = 0.19 \pm 0.02$

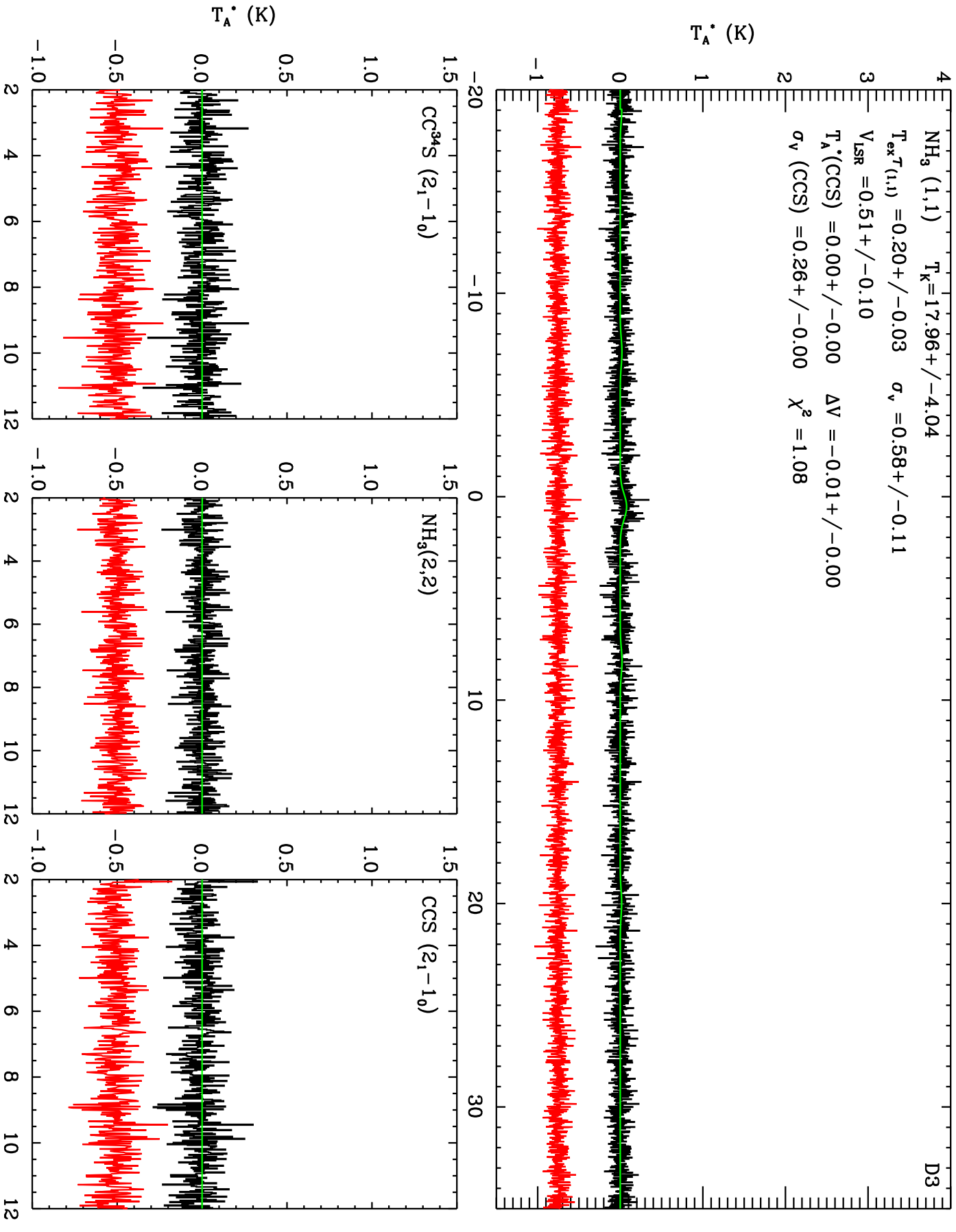
$V_{\text{LSR}} = 9.14 \pm 0.02$

$T_A^*(\text{CCS}) = 0.05 \pm 0.04$ $\Delta V = 1.14 \pm 0.08$

$\sigma_v(\text{CCS}) = 0.09 \pm 0.08$ $\chi^2 = 1.05$



$\text{NH}_3(1,1)$ $T_K = 17.96 \pm 4.04$
 $T_{\text{ex}}^{T(1,1)} = 0.20 \pm 0.03$ $\sigma_v = 0.58 \pm 0.11$
 $V_{\text{LSR}} = 0.51 \pm 0.10$
 $T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.01 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.26 \pm 0.00$ $\chi^2 = 1.08$



D30

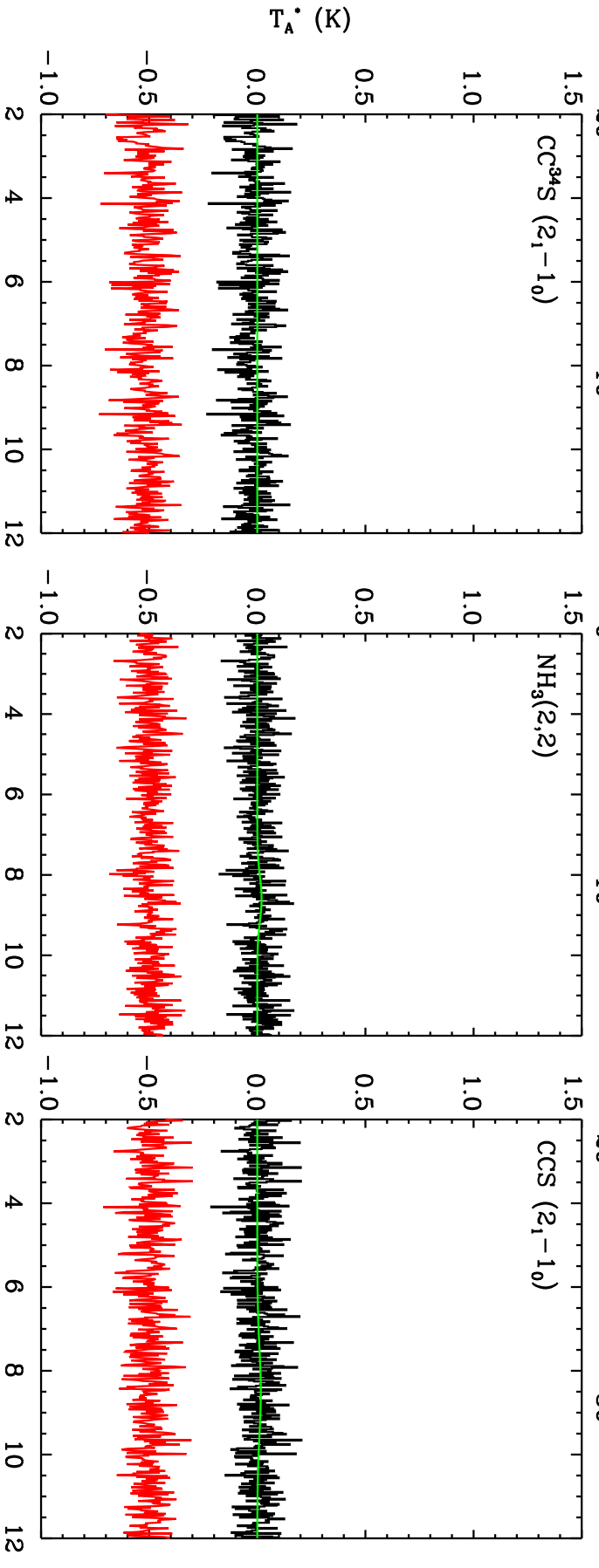
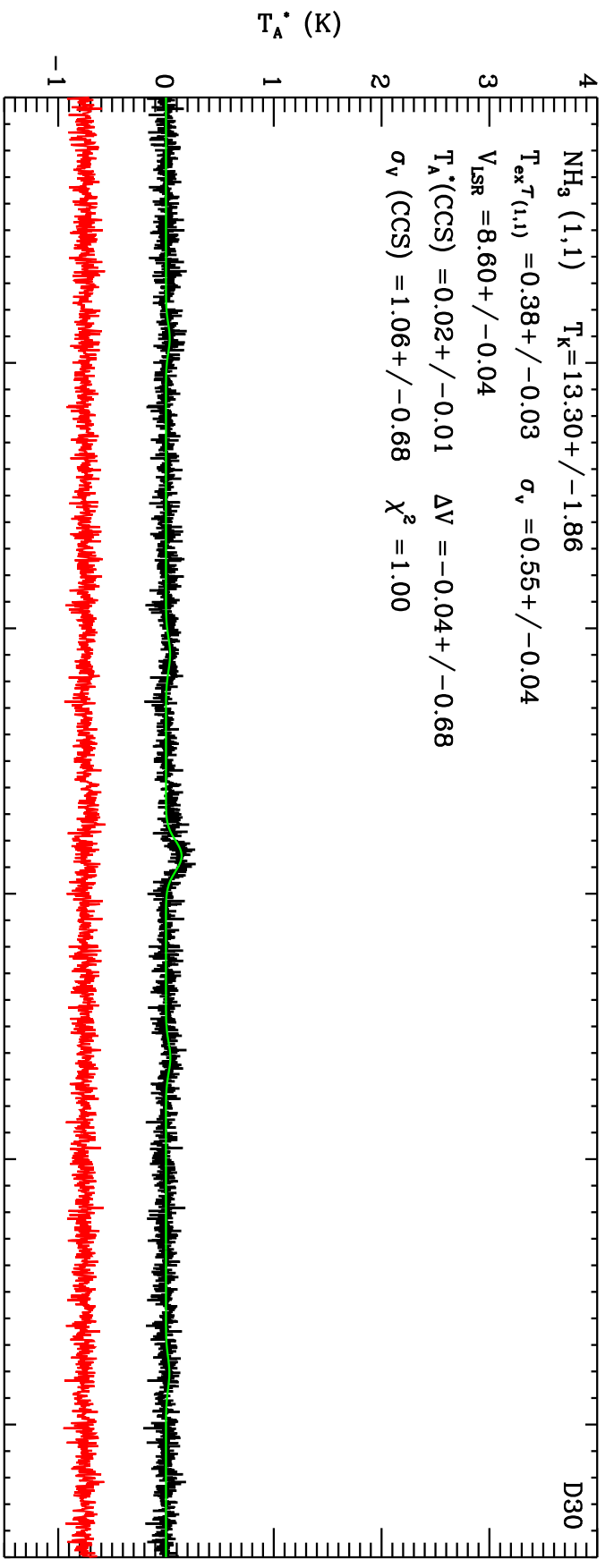
NH₃ (1,1) $T_K = 13.30 \pm 1.86$

$T_{\text{ex}}^{T(1,1)} = 0.38 \pm 0.03$ $\sigma_v = 0.55 \pm 0.04$

$V_{\text{LSR}} = 8.60 \pm 0.04$

$T_A^*(\text{CCS}) = 0.02 \pm 0.01$ $\Delta V = -0.04 \pm 0.68$

$\sigma_v(\text{CCS}) = 1.06 \pm 0.68$ $\chi^2 = 1.00$



D31

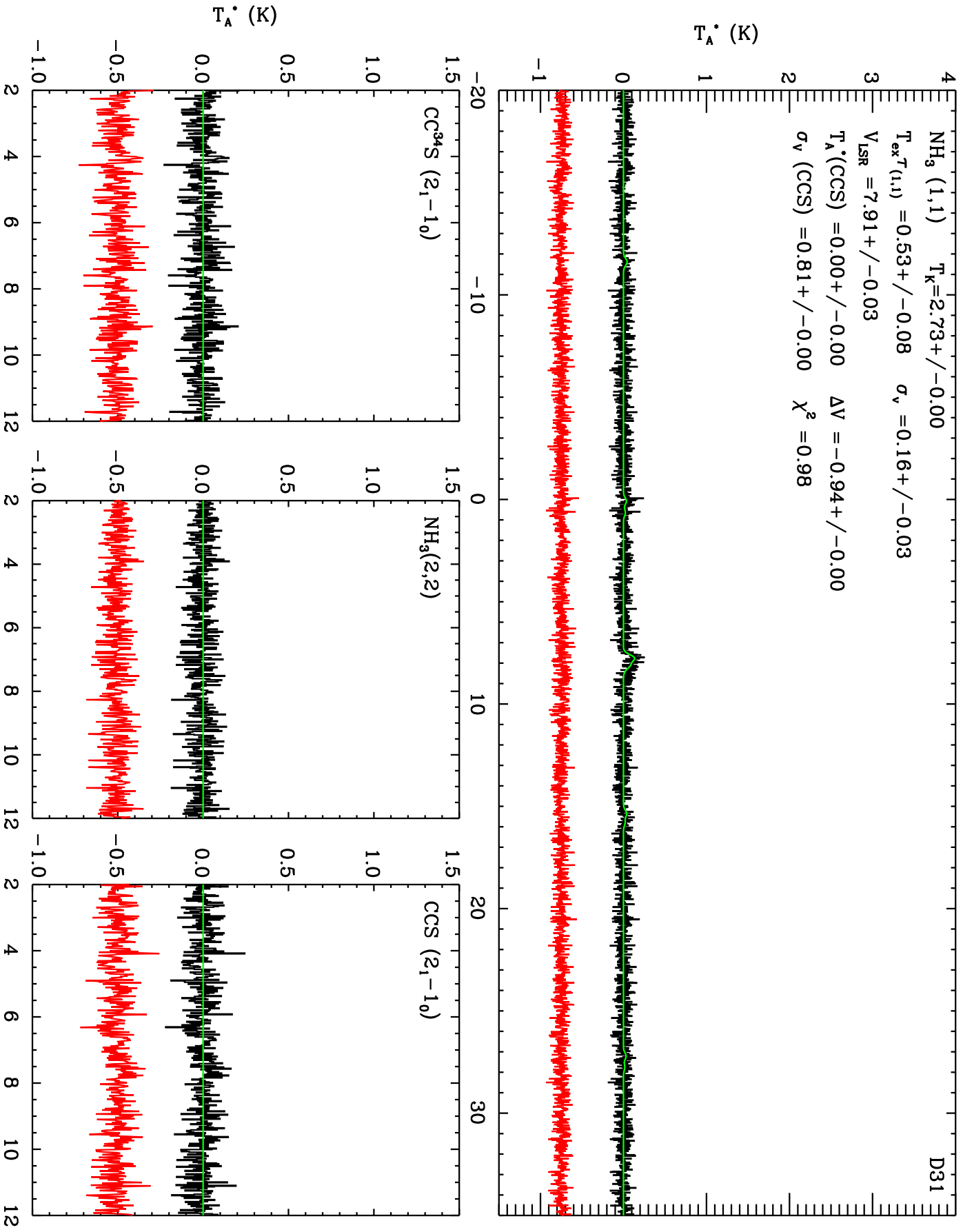
NH₃ (1,1) T_K=2.73+/-0.00

T_{ex}^{T(1,1)} = 0.53+/-0.08 σ_v = 0.16+/-0.03

V_{LSR} = 7.91+/-0.03

T_A^{*}(CCS) = 0.00+/-0.00 ΔV = -0.94+/-0.00

σ_v (CCS) = 0.81+/-0.00 χ² = 0.98



D32

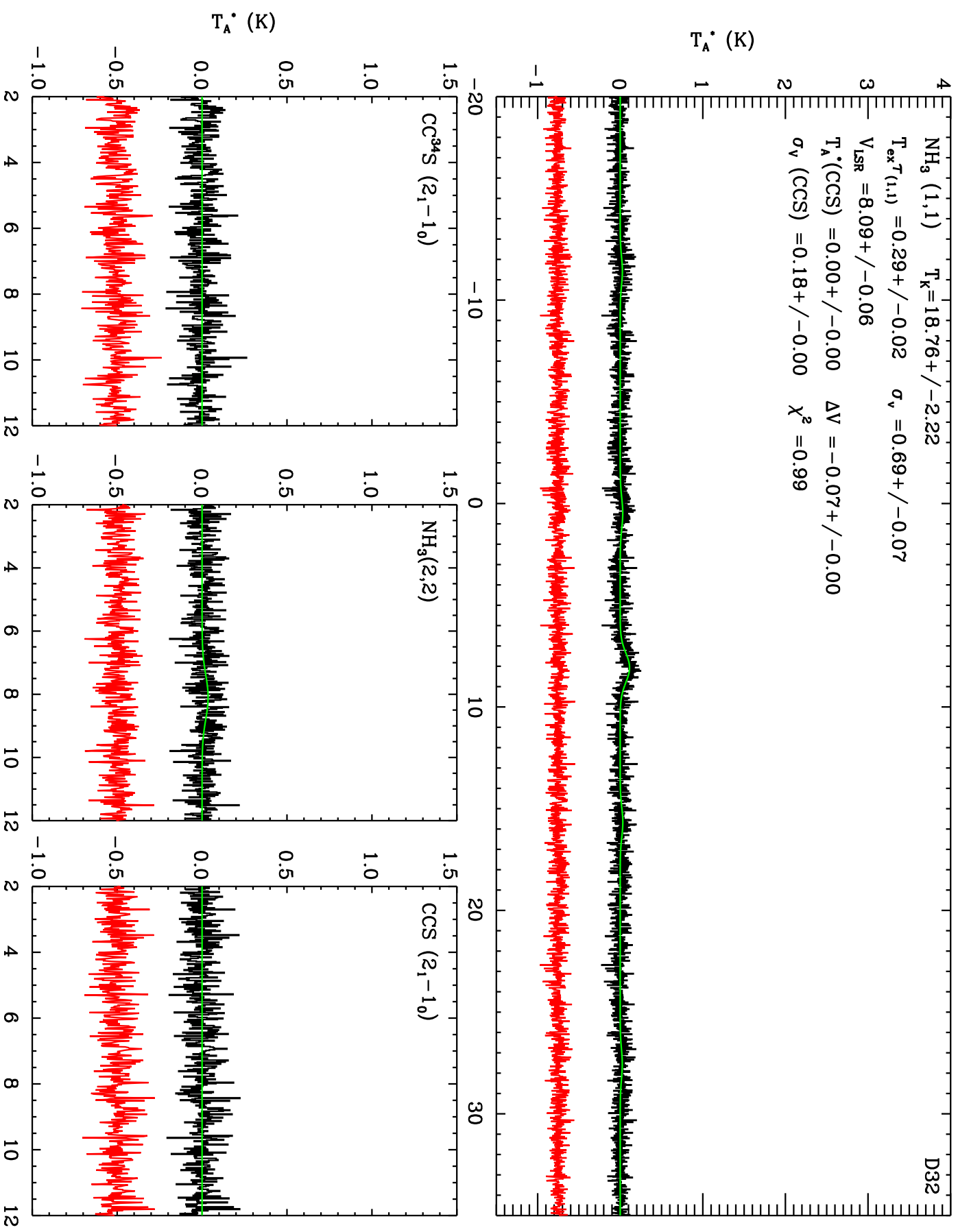
NH₃ (1,1) $T_K = 18.76 \pm 2.22$

$T_{\text{ex}}^{T(1,1)} = 0.29 \pm 0.02$ $\sigma_v = 0.69 \pm 0.07$

$V_{\text{LSR}} = 8.09 \pm 0.06$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = -0.07 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.18 \pm 0.00$ $\chi^2 = 0.99$



D33

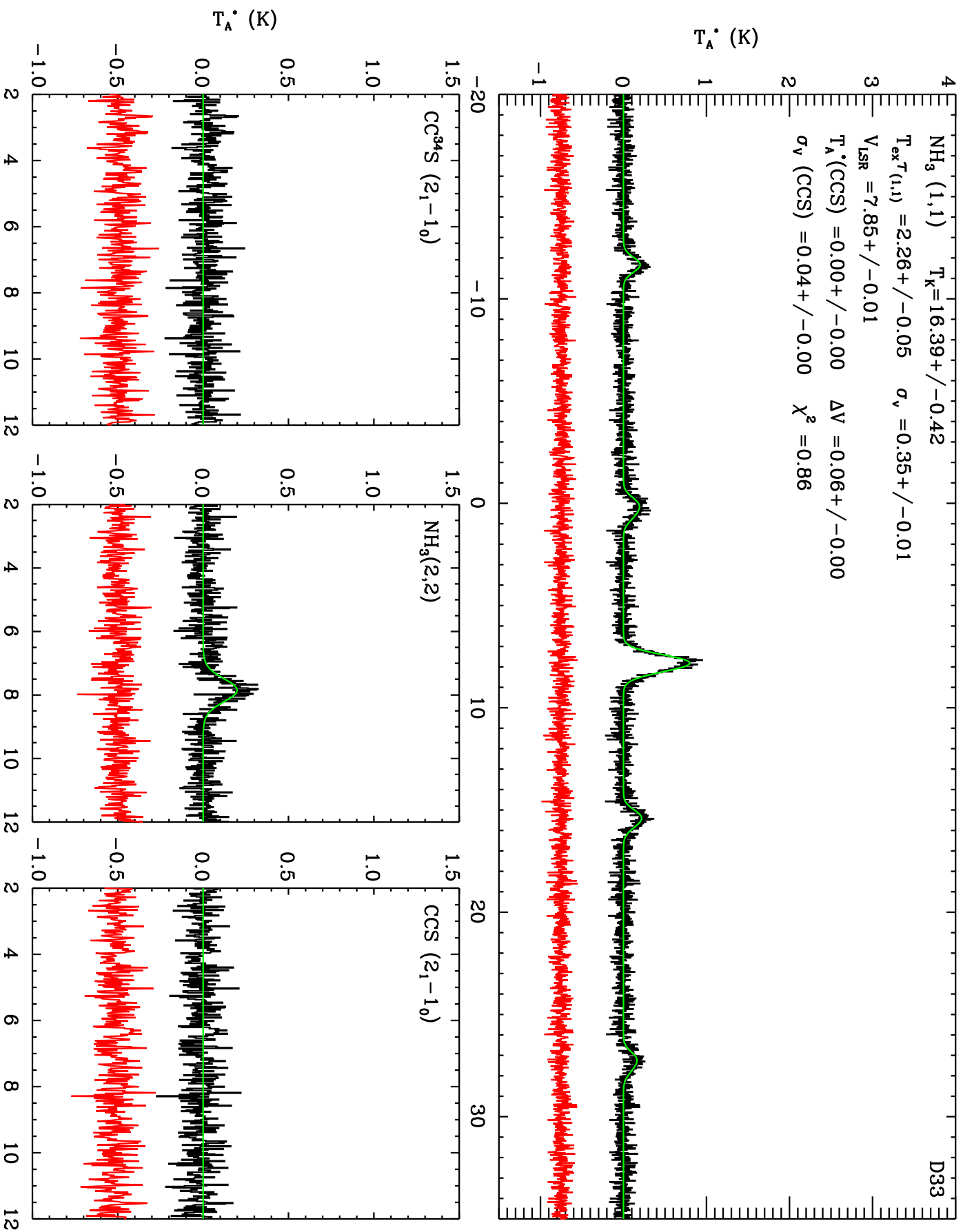
NH₃ (1,1) $T_K = 16.39 \pm 0.42$

$T_{\text{ex}}^{T(1,1)} = 2.26 \pm 0.05$ $\sigma_v = 0.35 \pm 0.01$

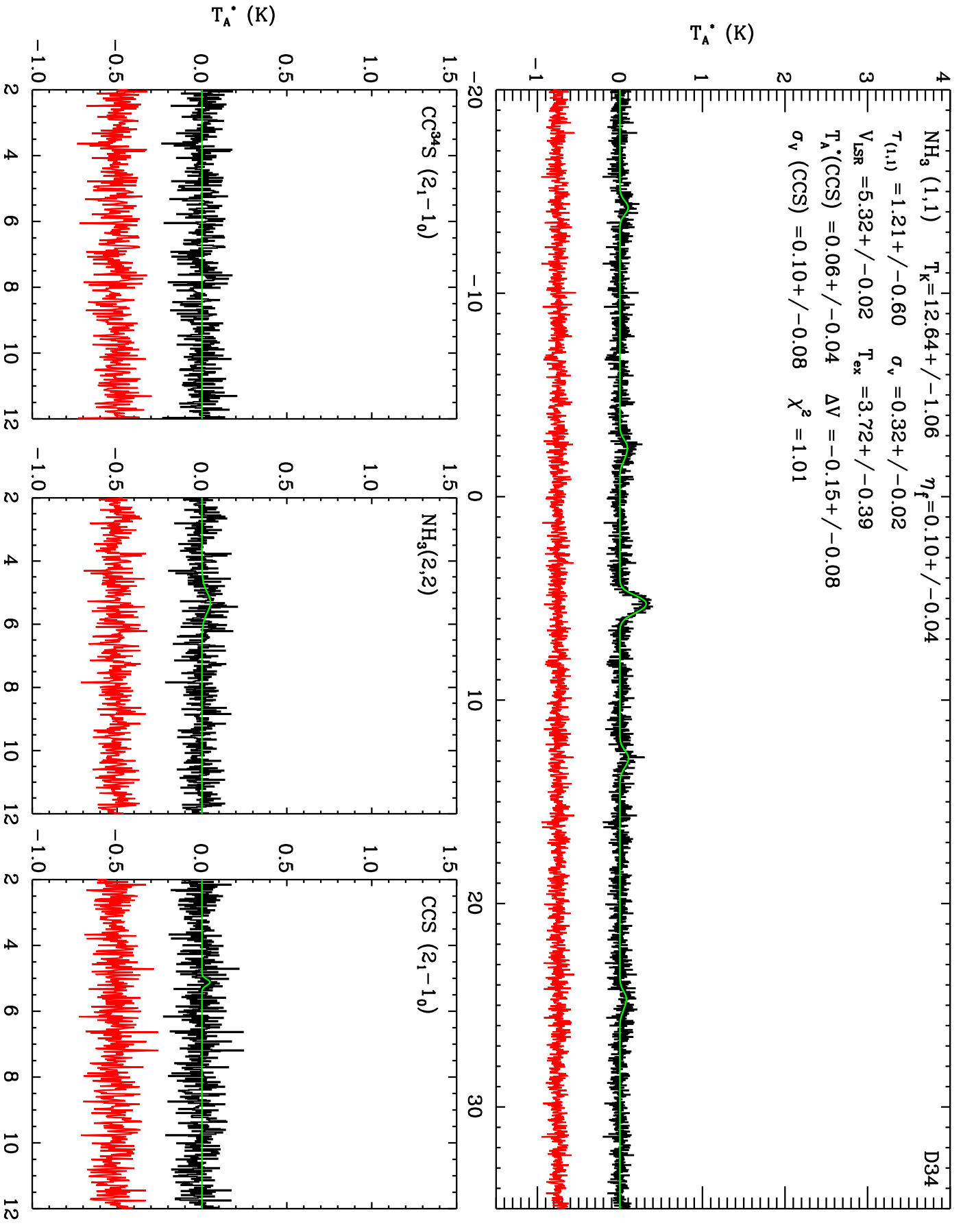
$V_{\text{LSR}} = 7.85 \pm 0.01$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = 0.06 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.04 \pm 0.00$ $\chi^2 = 0.86$



D34
NH₃ (1,1) $T_K=12.64+/-1.06$ $\eta_f=0.10+/-0.04$
 $T_{(1,1)} = 1.21+/-0.60$ $\sigma_v = 0.32+/-0.02$
 $V_{LSR} = 5.32+/-0.02$ $T_{ex} = 3.72+/-0.39$
 $T_A^*(CCS) = 0.06+/-0.04$ $\Delta V = -0.15+/-0.08$
 σ_v (CCS) = 0.10+/-0.08 $\chi^2 = 1.01$



D35

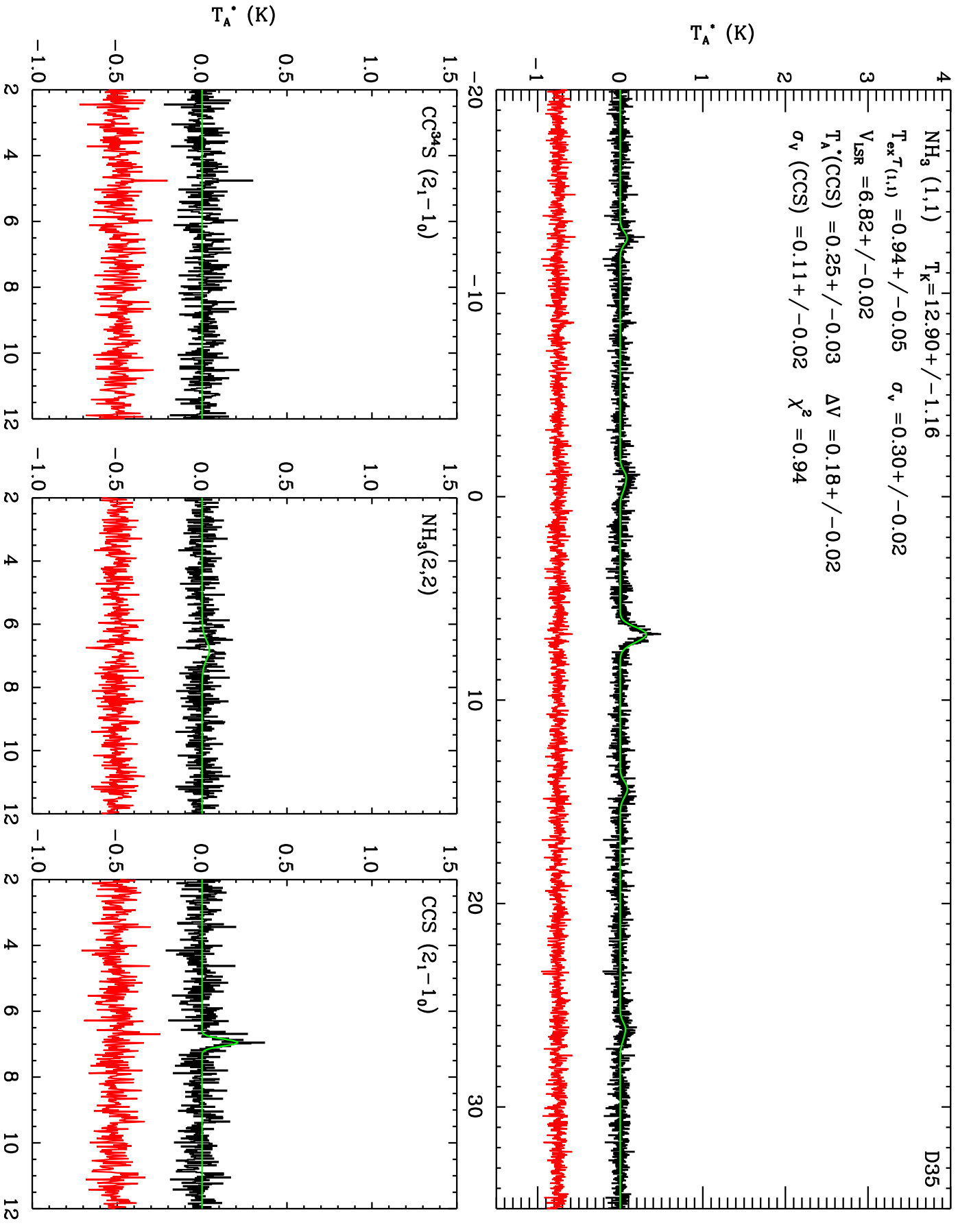
NH₃ (1,1) T_K=12.90+/-1.16

T_{ex}^{T(1,1)} = 0.94+/-0.05 σ_v = 0.30+/-0.02

V_{LSR} = 6.82+/-0.02

T_A^{*}(CCS) = 0.25+/-0.03 ΔV = 0.18+/-0.02

σ_v (CCS) = 0.11+/-0.02 χ² = 0.94



D36

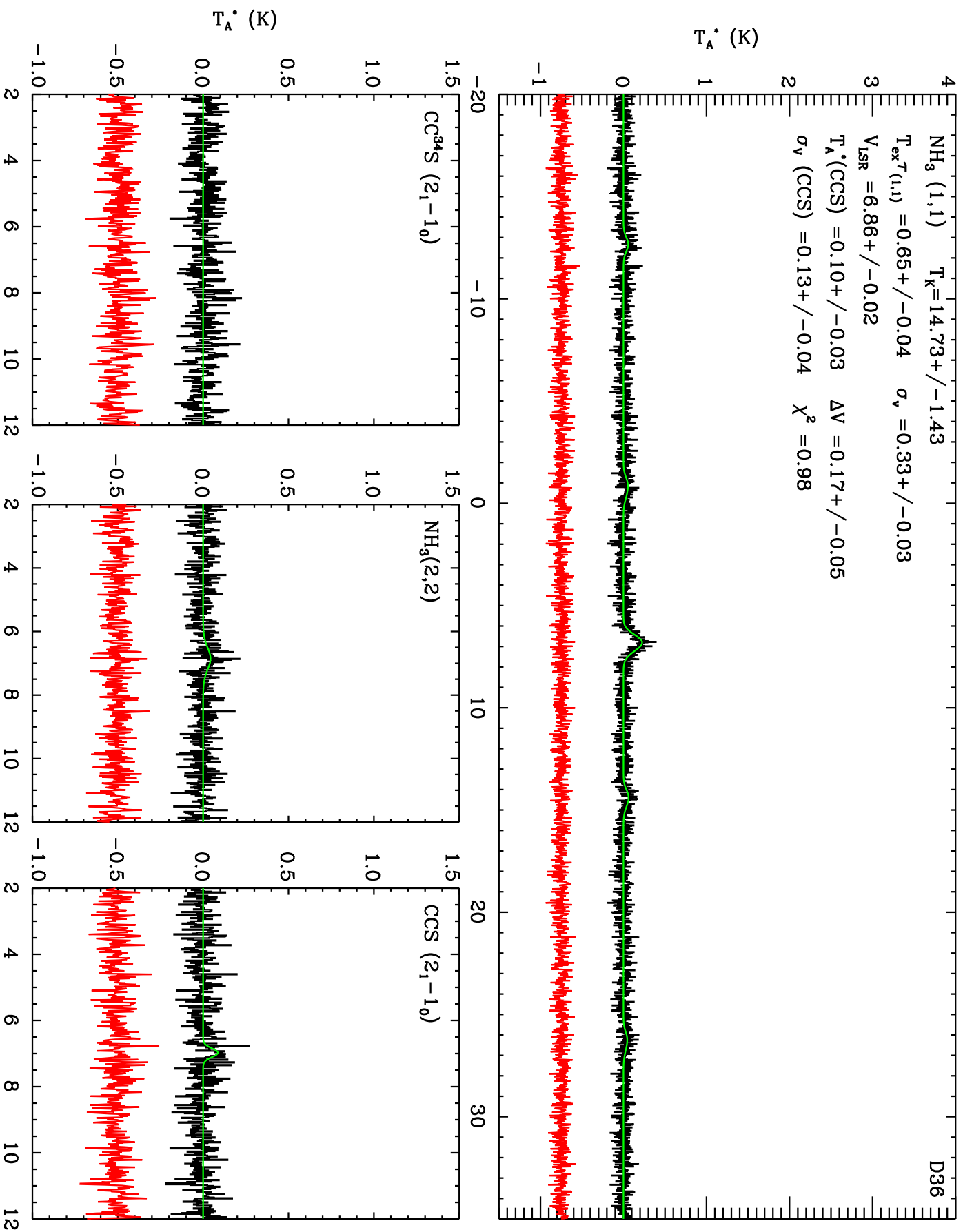
NH₃ (1,1) $T_K = 14.73 \pm 1.43$

$T_{\text{ex}}^{T(1,1)} = 0.65 \pm 0.04$ $\sigma_v = 0.33 \pm 0.03$

$V_{\text{LSR}} = 6.86 \pm 0.02$

$T_A^*(\text{CCS}) = 0.10 \pm 0.03$ $\Delta V = 0.17 \pm 0.05$

$\sigma_v(\text{CCS}) = 0.13 \pm 0.04$ $\chi^2 = 0.98$



D37

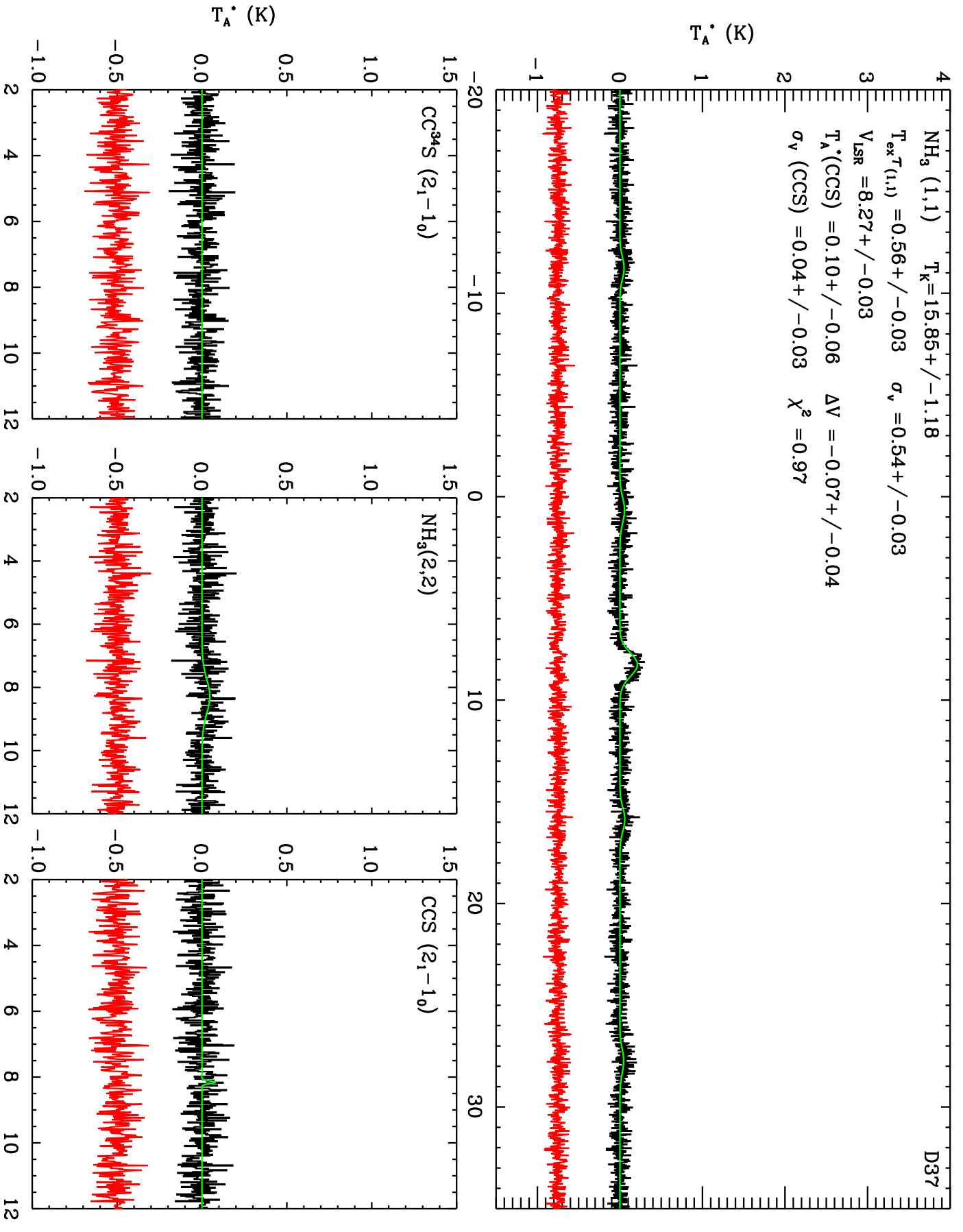
NH₃ (1,1) $T_K = 15.85 \pm 1.18$

$T_{\text{ex}}^{T(1,1)} = 0.56 \pm 0.03$ $\sigma_v = 0.54 \pm 0.03$

$V_{\text{LSR}} = 8.27 \pm 0.03$

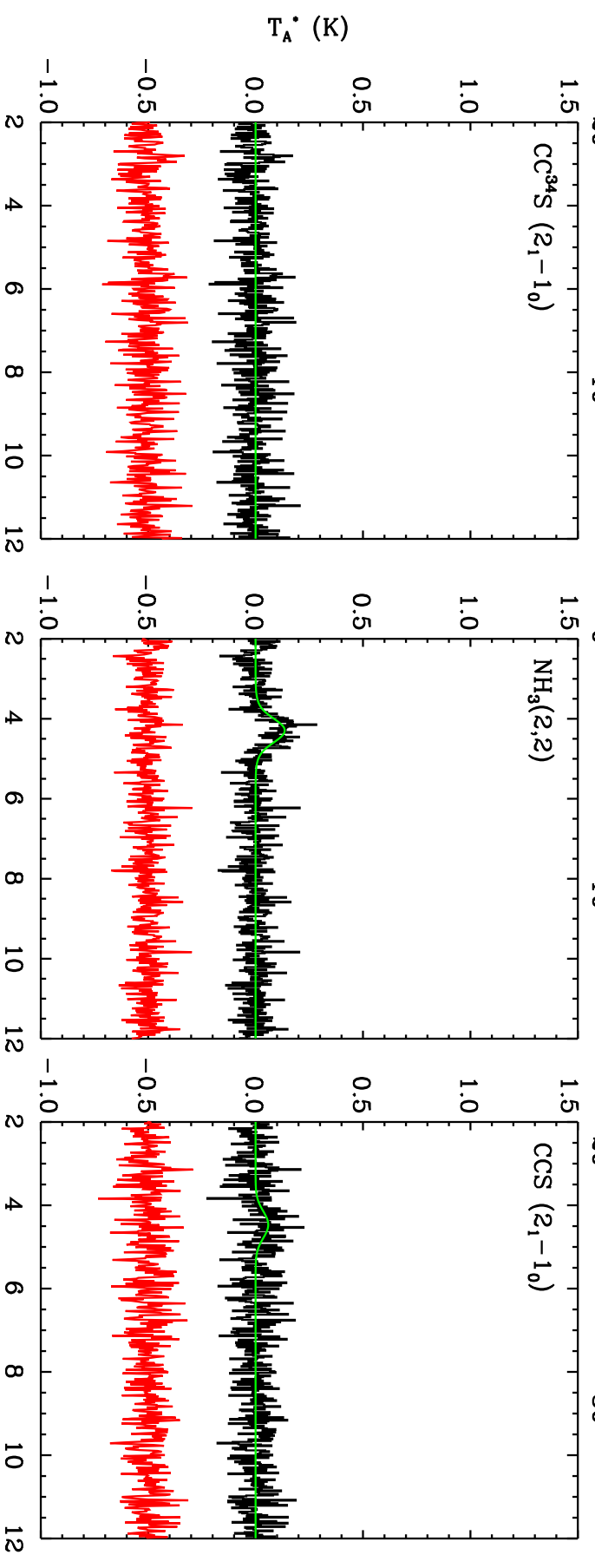
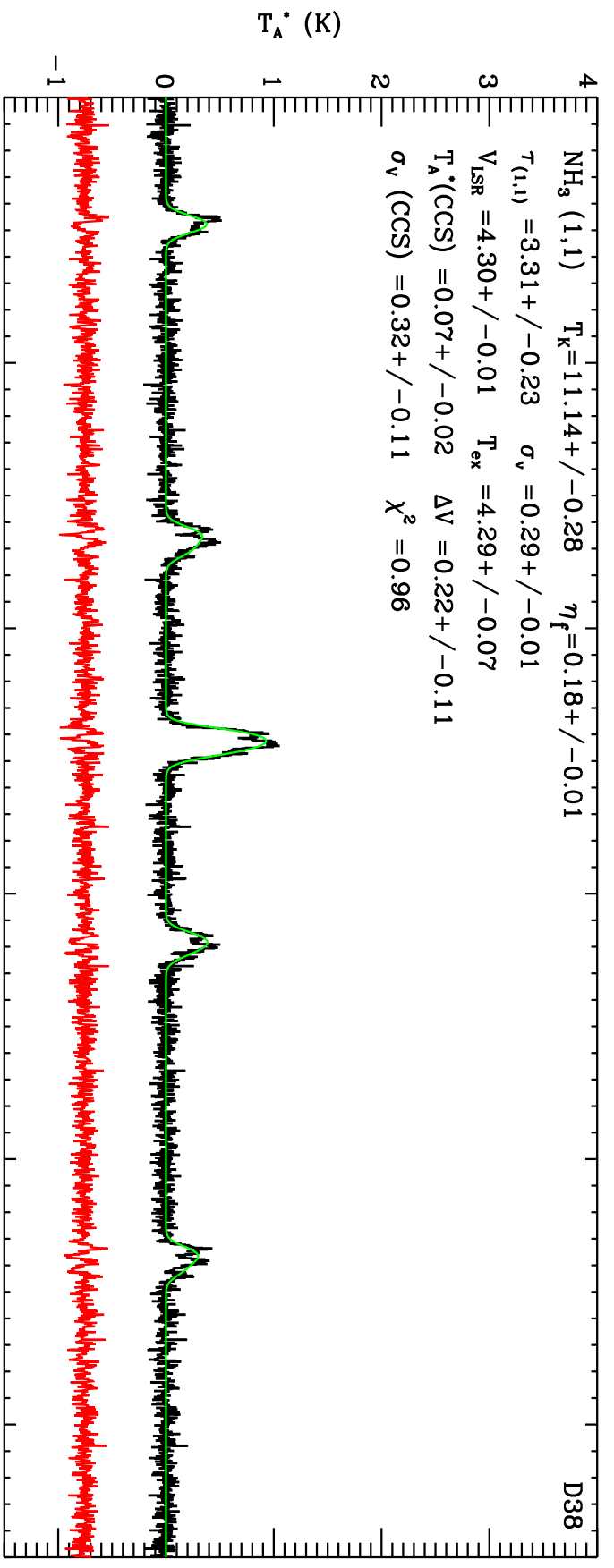
$T_A^*(\text{CCS}) = 0.10 \pm 0.06$ $\Delta V = -0.07 \pm 0.04$

$\sigma_v(\text{CCS}) = 0.04 \pm 0.03$ $\chi^2 = 0.97$

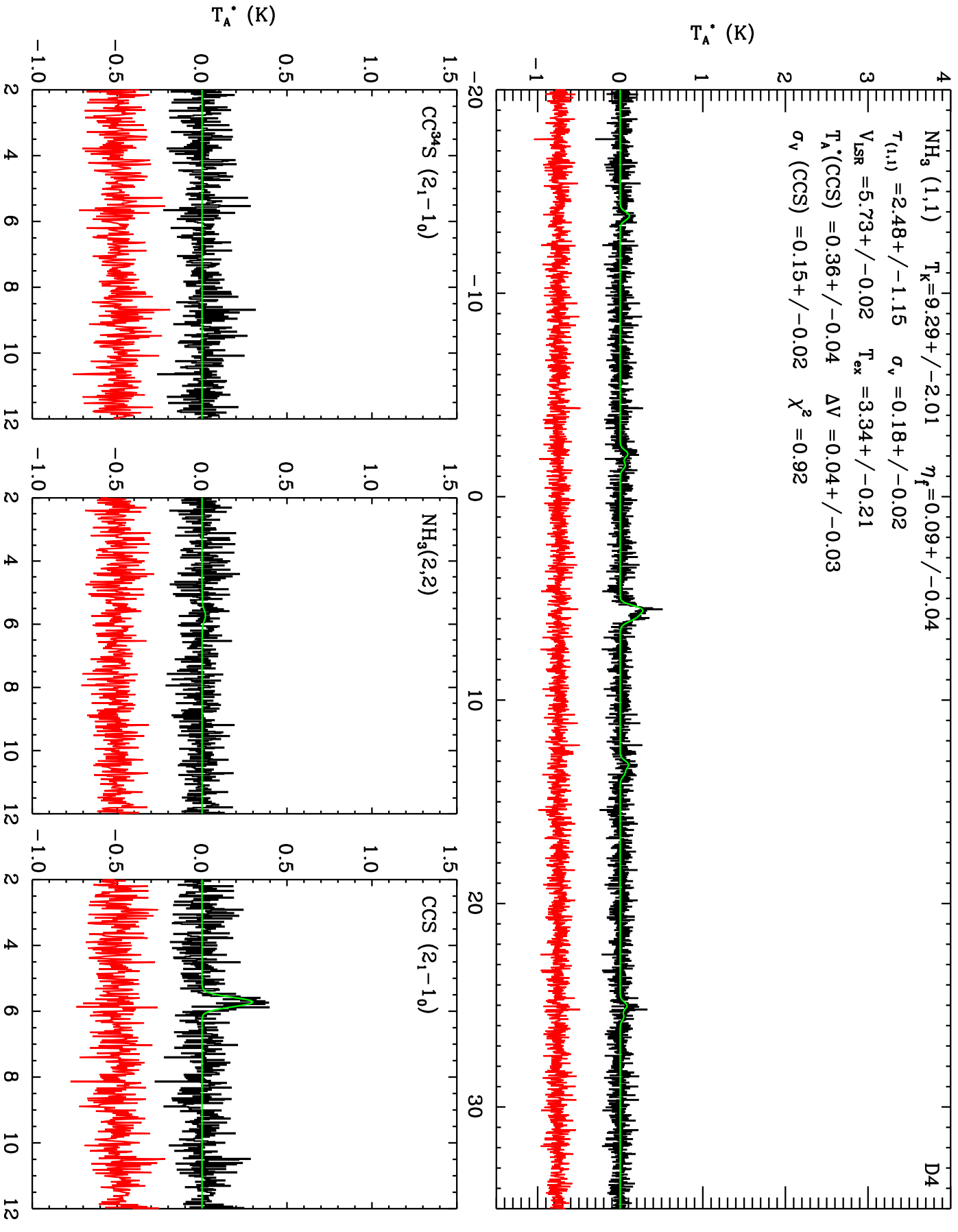


$\text{NH}_3(1,1)$ $T_K=11.14+/-0.28$ $\eta_f=0.18+/-0.01$
 $T_{(1,1)}=3.31+/-0.23$ $\sigma_v=0.29+/-0.01$
 $V_{\text{LSR}}=4.30+/-0.01$ $T_{\text{ex}}=4.29+/-0.07$
 $T_A^*(\text{CCS})=0.07+/-0.02$ $\Delta V=0.22+/-0.11$
 $\sigma_v(\text{CCS})=0.32+/-0.11$ $\chi^2=0.96$

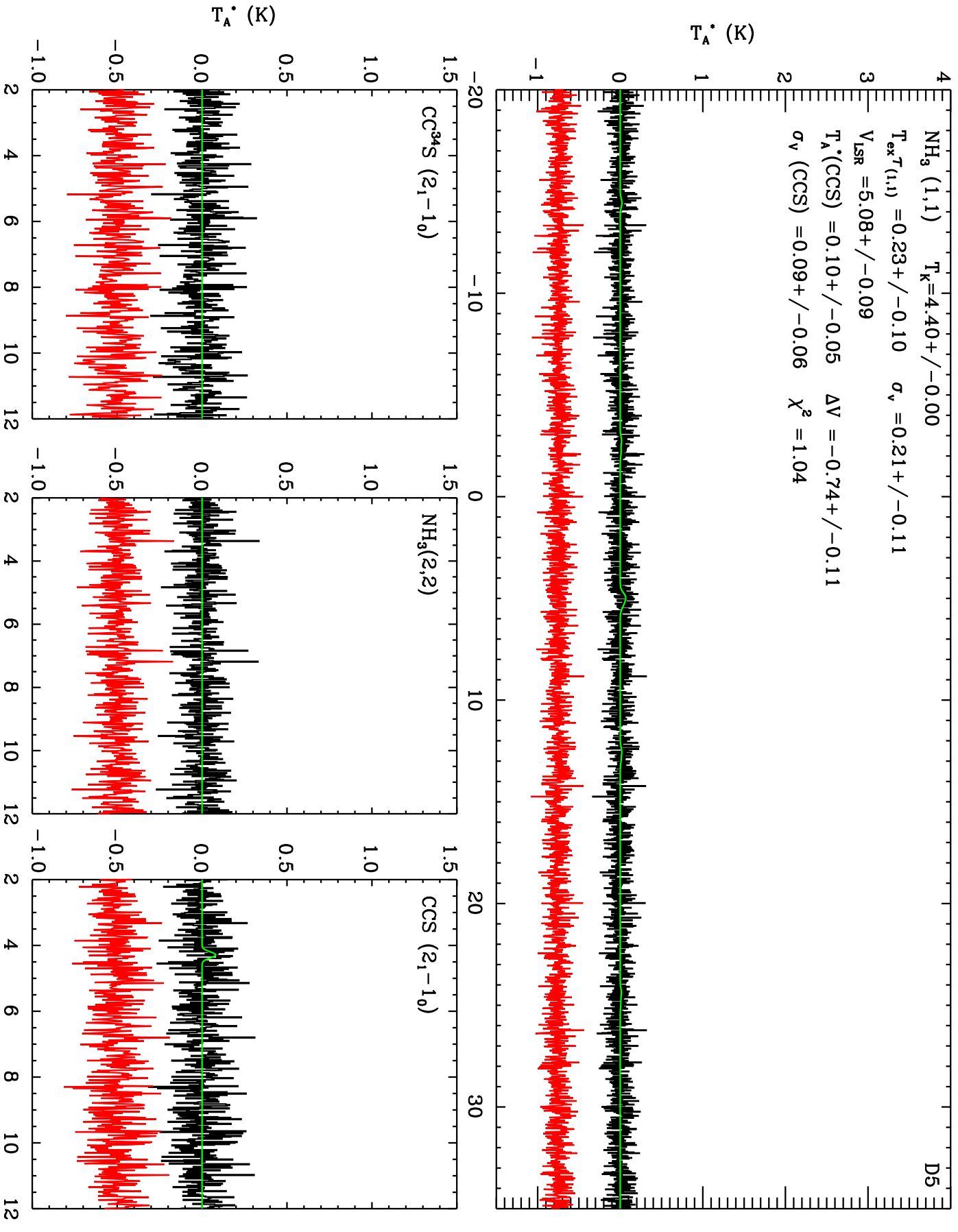
D38



$\text{NH}_3(1,1)$ $T_K = 9.29 + / - 2.01$ $\eta_f = 0.09 + / - 0.04$
 $T_{(1,1)} = 2.48 + / - 1.15$ $\sigma_v = 0.18 + / - 0.02$
 $V_{\text{LSR}} = 5.73 + / - 0.02$ $T_{\text{ex}} = 3.34 + / - 0.21$
 $T_A^*(\text{CCS}) = 0.36 + / - 0.04$ $\Delta V = 0.04 + / - 0.03$
 $\sigma_v(\text{CCS}) = 0.15 + / - 0.02$ $\chi^2 = 0.92$



$\text{NH}_3(1,1) \quad T_K = 4.40+/-0.00$
 $T_{\text{ex}}^{T(1,1)} = 0.23+/-0.10 \quad \sigma_v = 0.21+/-0.11$
 $V_{\text{LSR}} = 5.08+/-0.09$
 $T_A^*(\text{CCS}) = 0.10+/-0.05 \quad \Delta V = -0.74+/-0.11$
 $\sigma_v(\text{CCS}) = 0.09+/-0.06 \quad \chi^2 = 1.04$



D6

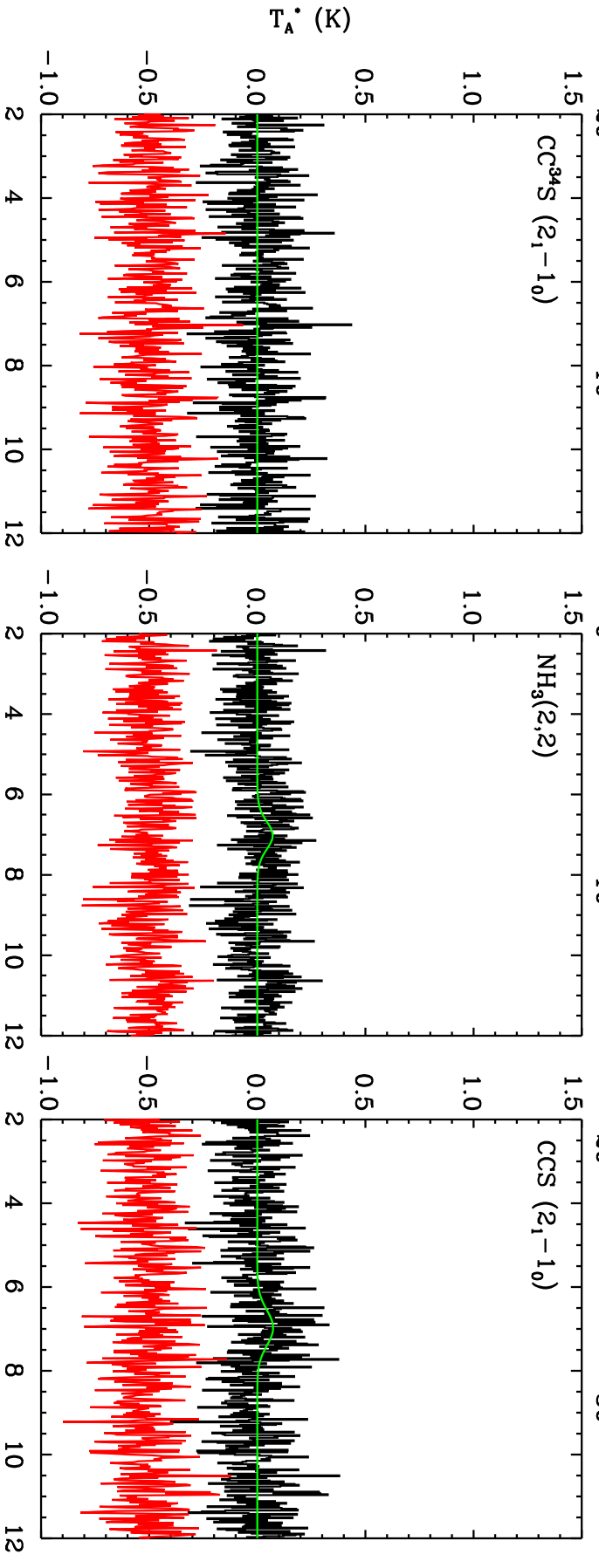
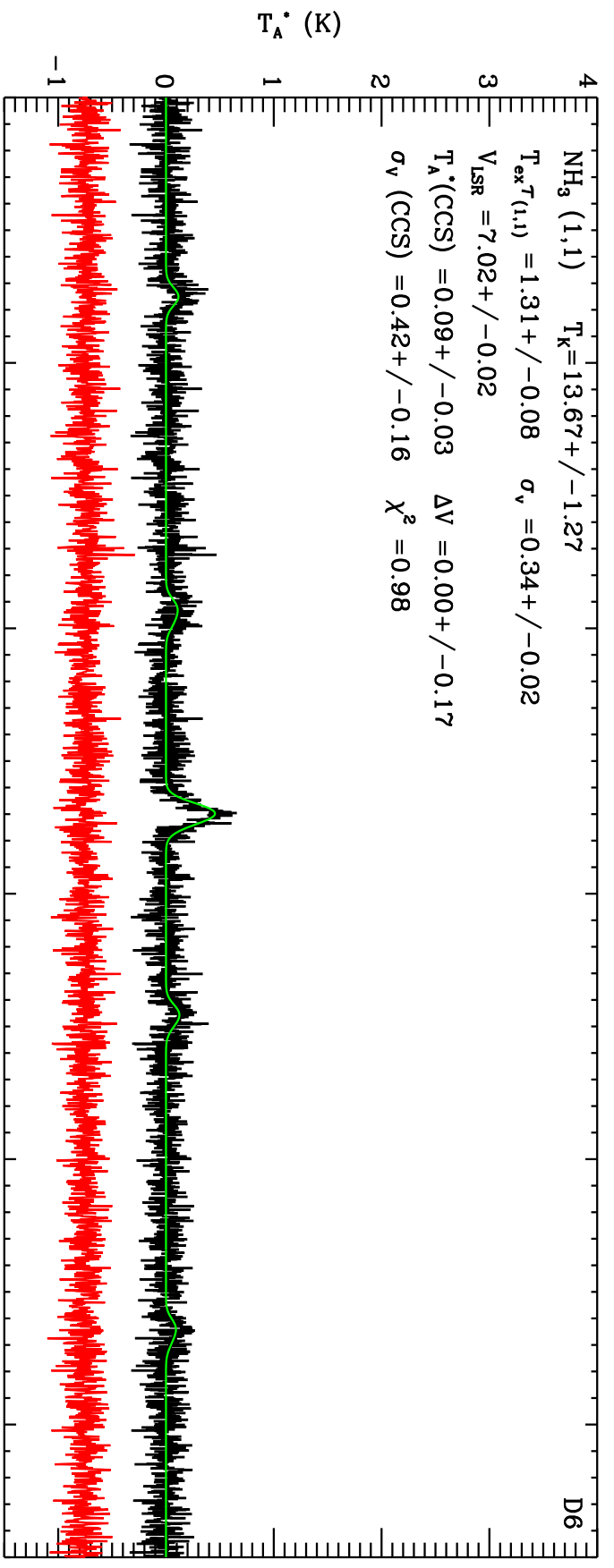
NH₃ (1,1) T_K = 13.67 ± -1.27

T_{ex}^{T(1,1)} = 1.31 ± -0.08 σ_v = 0.34 ± -0.02

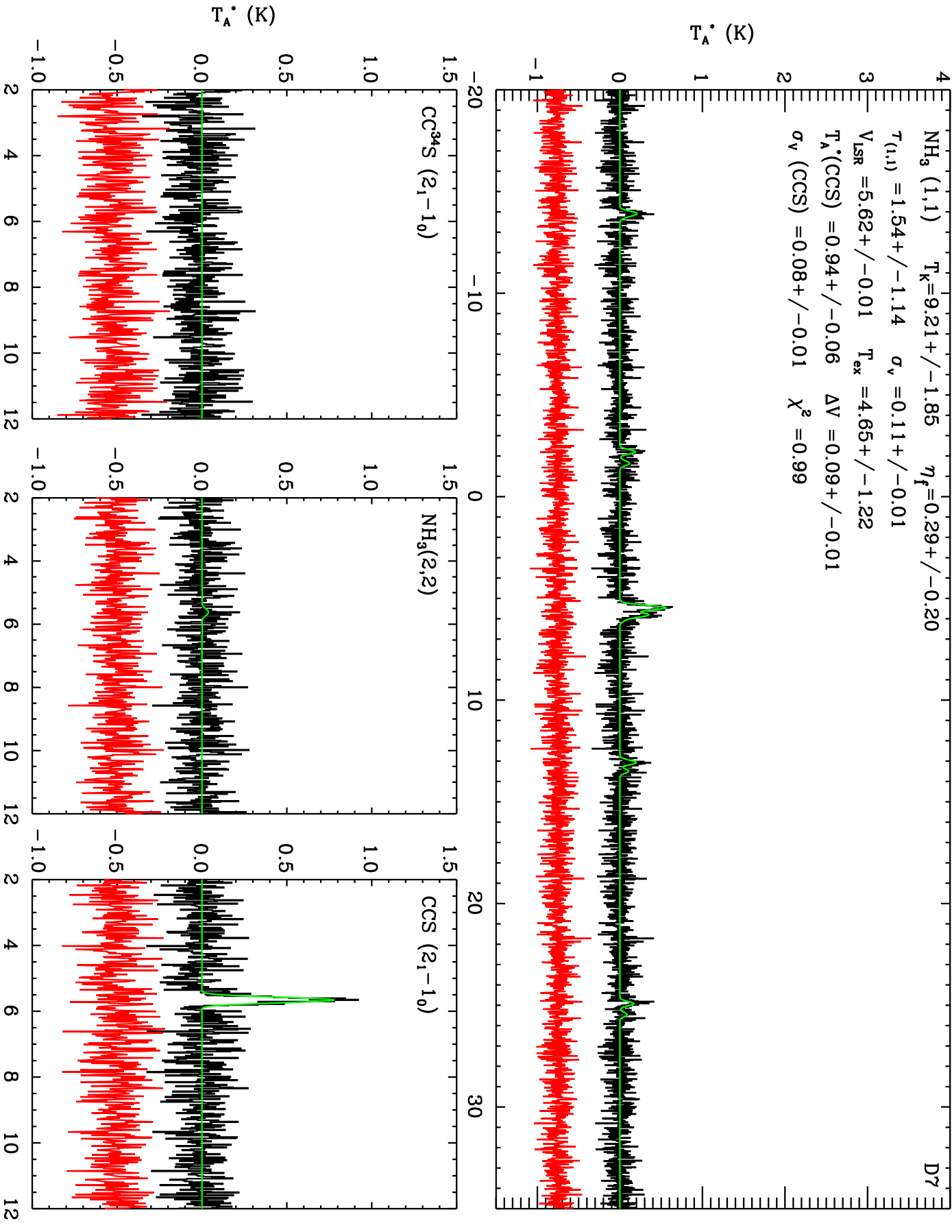
V_{LSR} = 7.02 ± -0.02

T_A^{*}(CCS) = 0.09 ± -0.03 ΔV = 0.00 ± -0.17

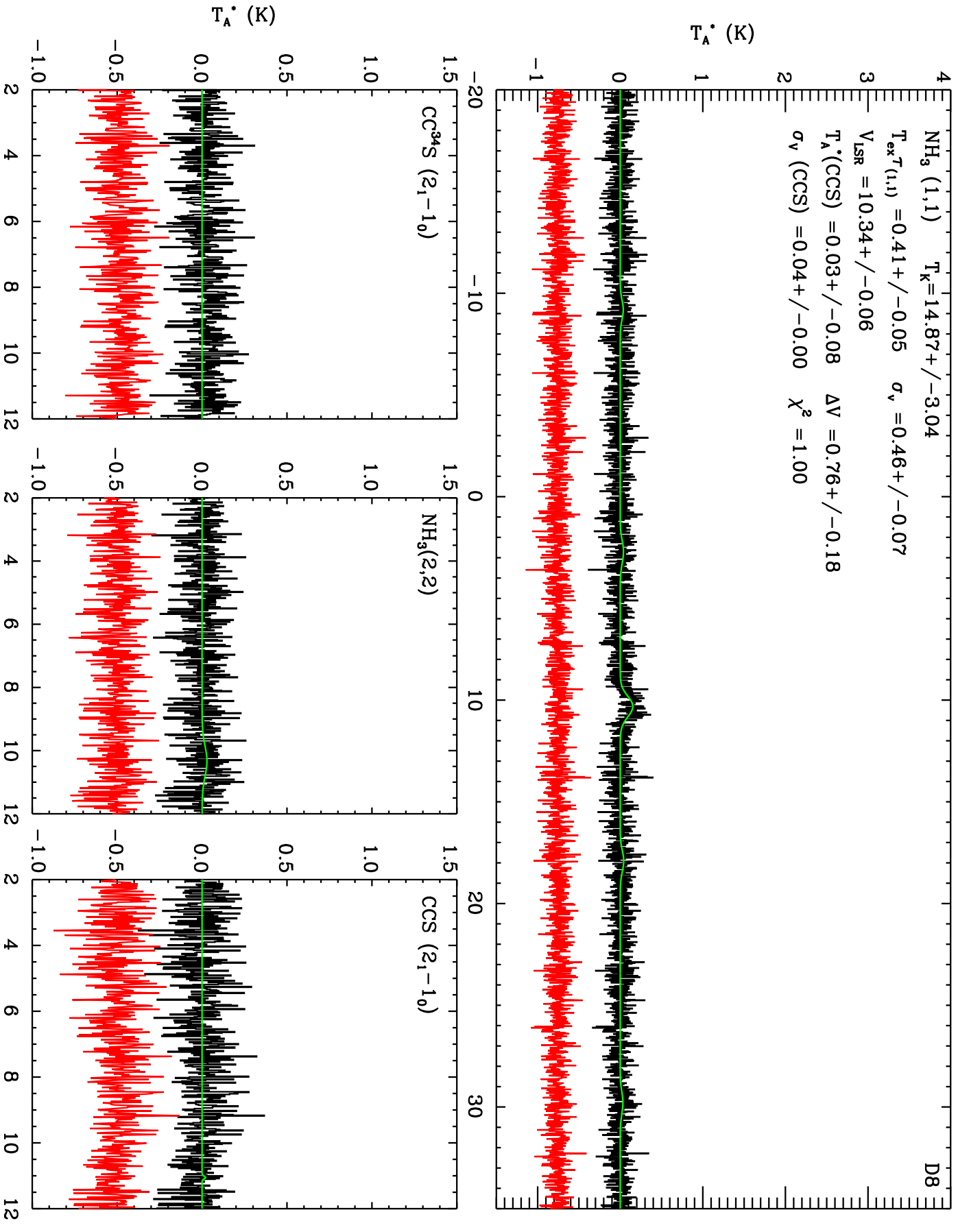
σ_v (CCS) = 0.42 ± -0.16 χ² = 0.98



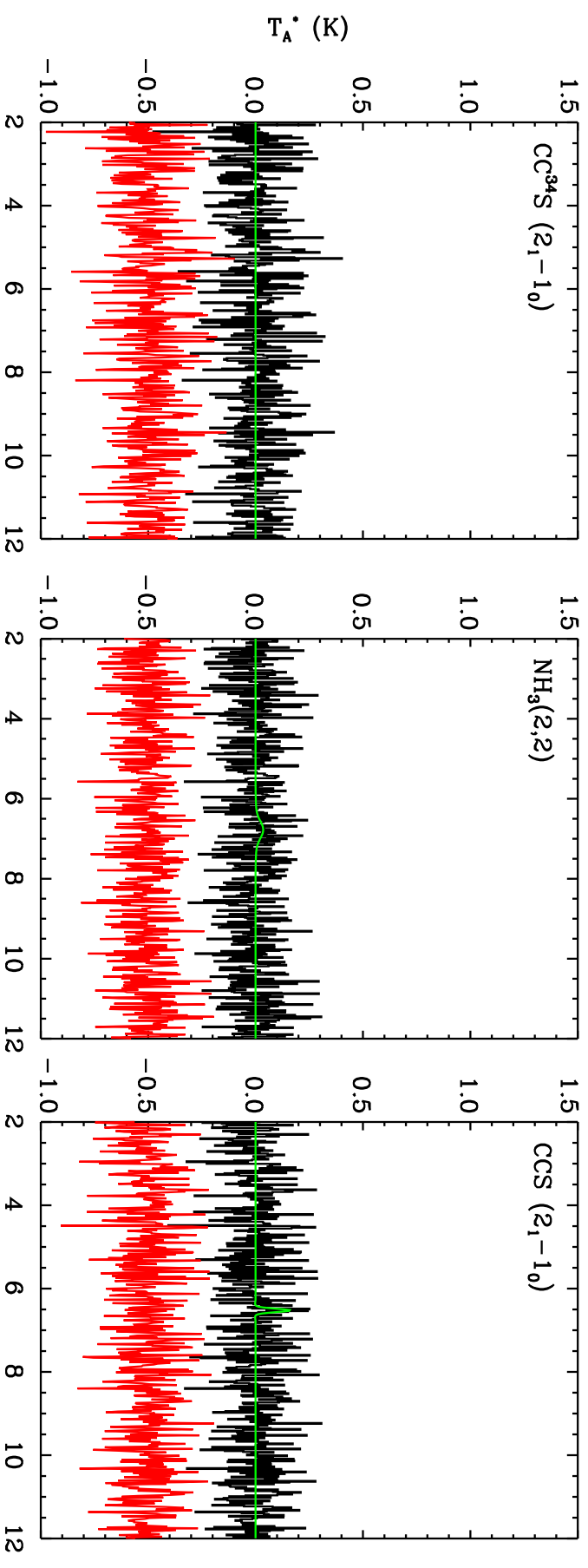
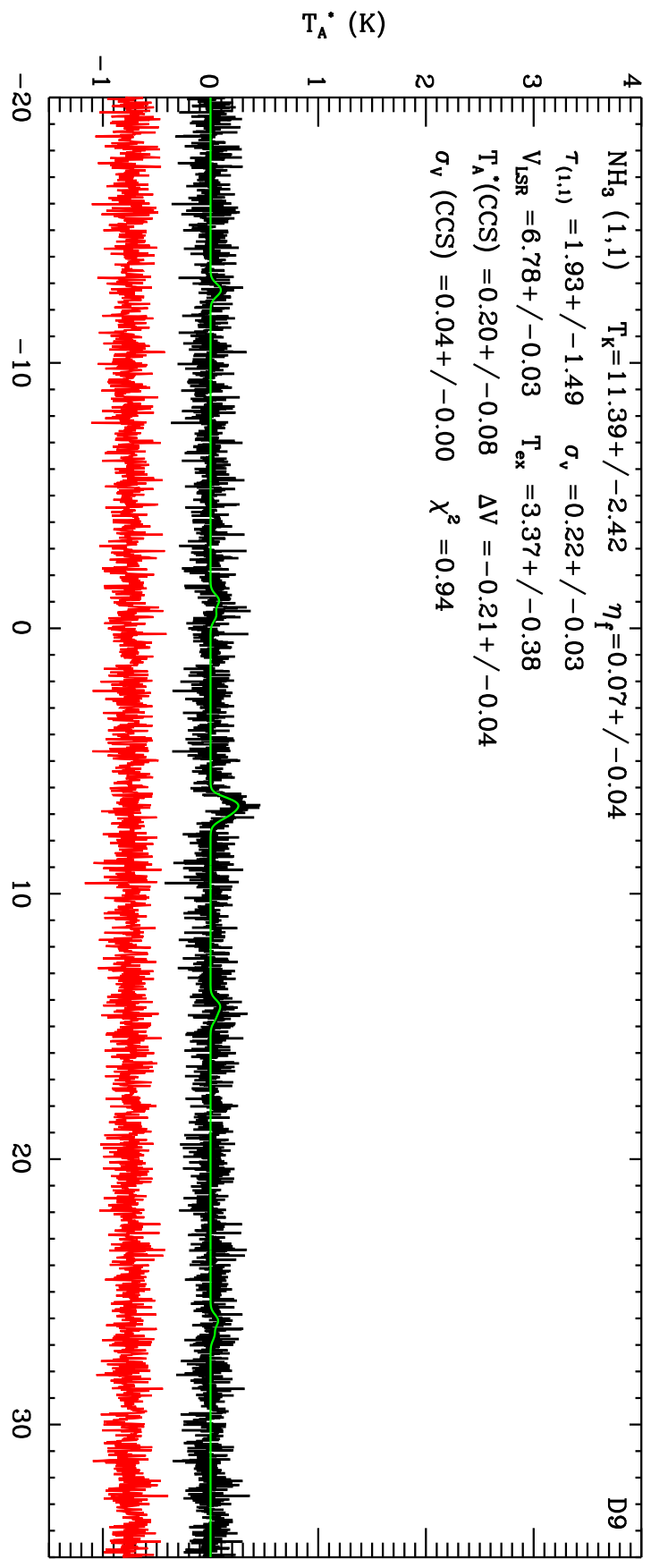
$\text{NH}_3(1,1)$ $T_K = 9.21 + / - 1.85$ $\eta_f = 0.29 + / - 0.20$
 $T_{(1,1)} = 1.54 + / - 1.14$ $\sigma_v = 0.11 + / - 0.01$
 $V_{\text{LSR}} = 5.62 + / - 0.01$ $T_{\text{ex}} = 4.65 + / - 1.22$
 $T_A^*(\text{CCS}) = 0.94 + / - 0.06$ $\Delta V = 0.09 + / - 0.01$
 $\sigma_v(\text{CCS}) = 0.08 + / - 0.01$ $\chi^2 = 0.99$



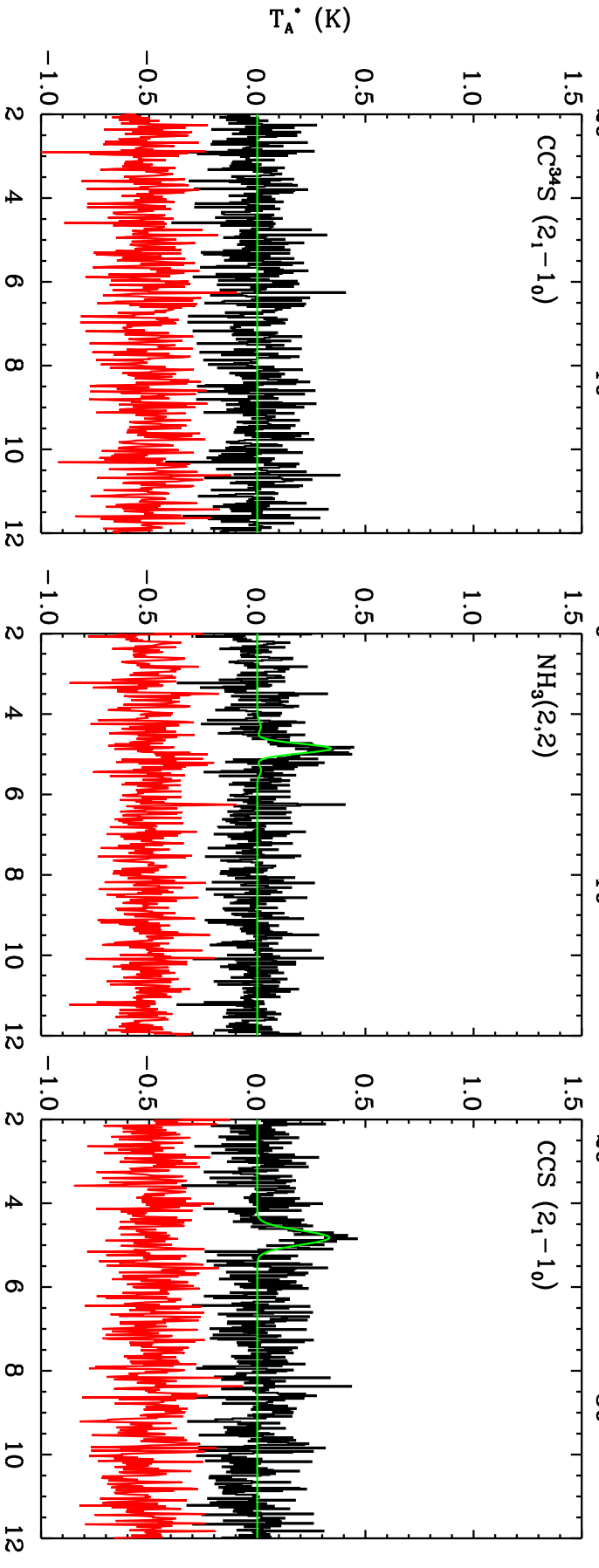
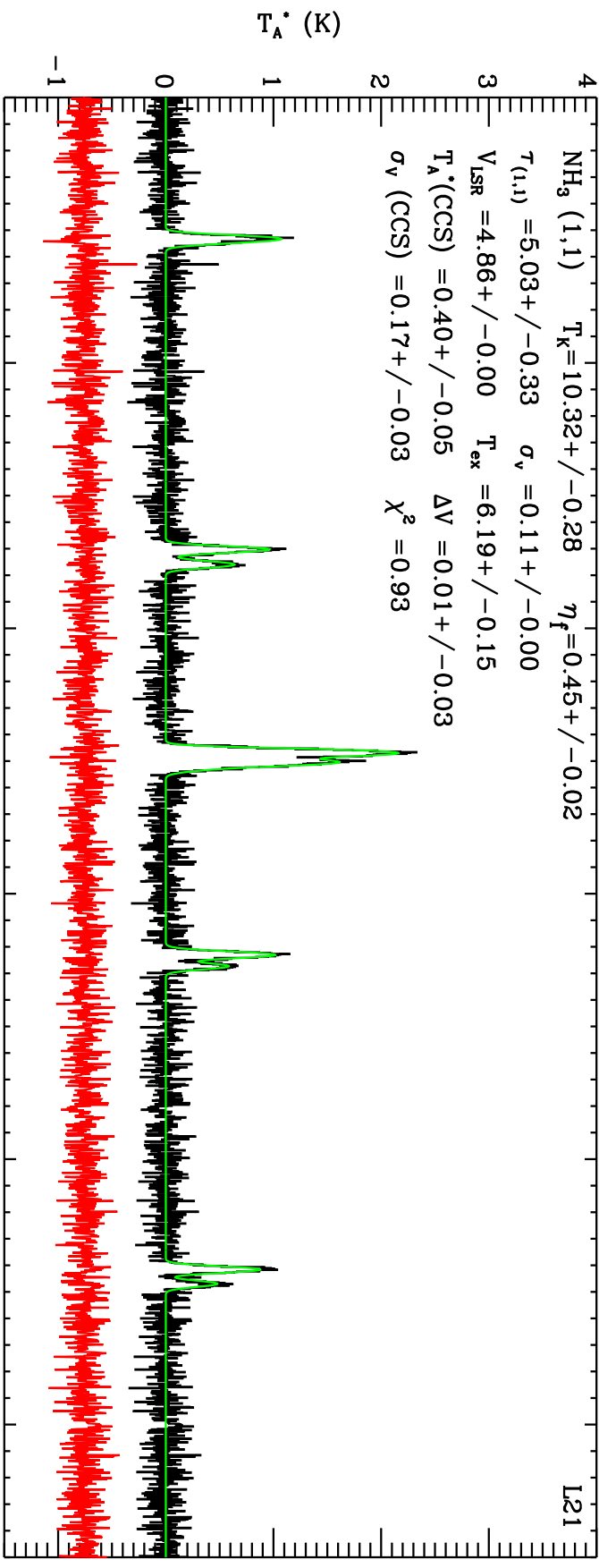
NH₃ (1,1) T_K = 14.87 ± 3.04
 T_{ex}^{T(1,1)} = 0.41 ± 0.05 σ_v = 0.46 ± 0.07
 V_{LSR} = 10.34 ± 0.06
 T_A^{*}(CCS) = 0.03 ± 0.08 ΔV = 0.76 ± 0.18
 σ_v(CCS) = 0.04 ± 0.00 χ² = 1.00



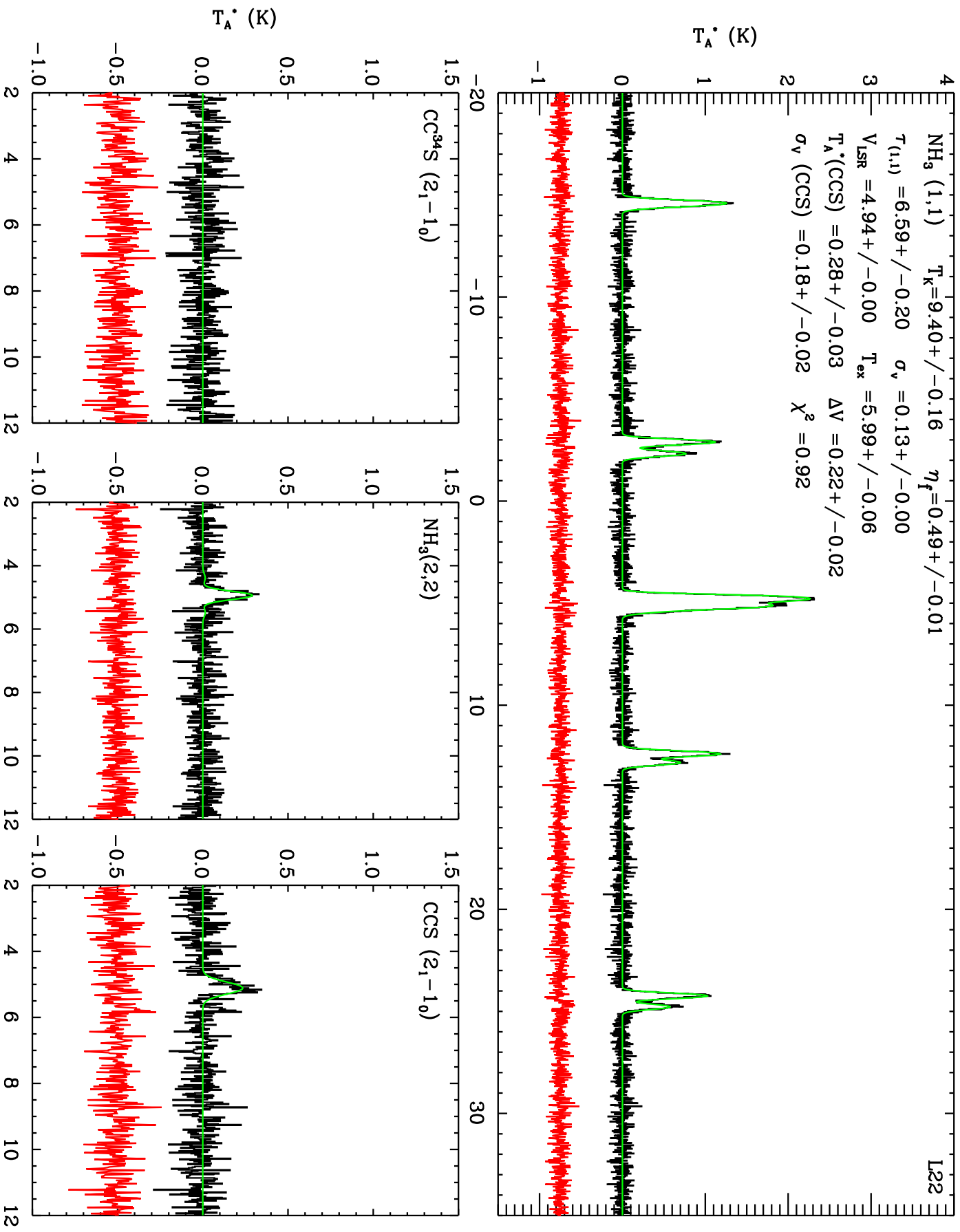
D9
NH₃ (1,1) $T_K=11.39+/-2.42$ $\eta_f=0.07+/-0.04$
 $T_{(1,1)}=1.93+/-1.49$ $\sigma_v=0.22+/-0.03$
 $V_{LSR}=6.78+/-0.03$ $T_{ex}=3.37+/-0.38$
 $T_A^*(CCS)=0.20+/-0.08$ $\Delta V=-0.21+/-0.04$
 $\sigma_v(CCS)=0.04+/-0.00$ $\chi^2=0.94$



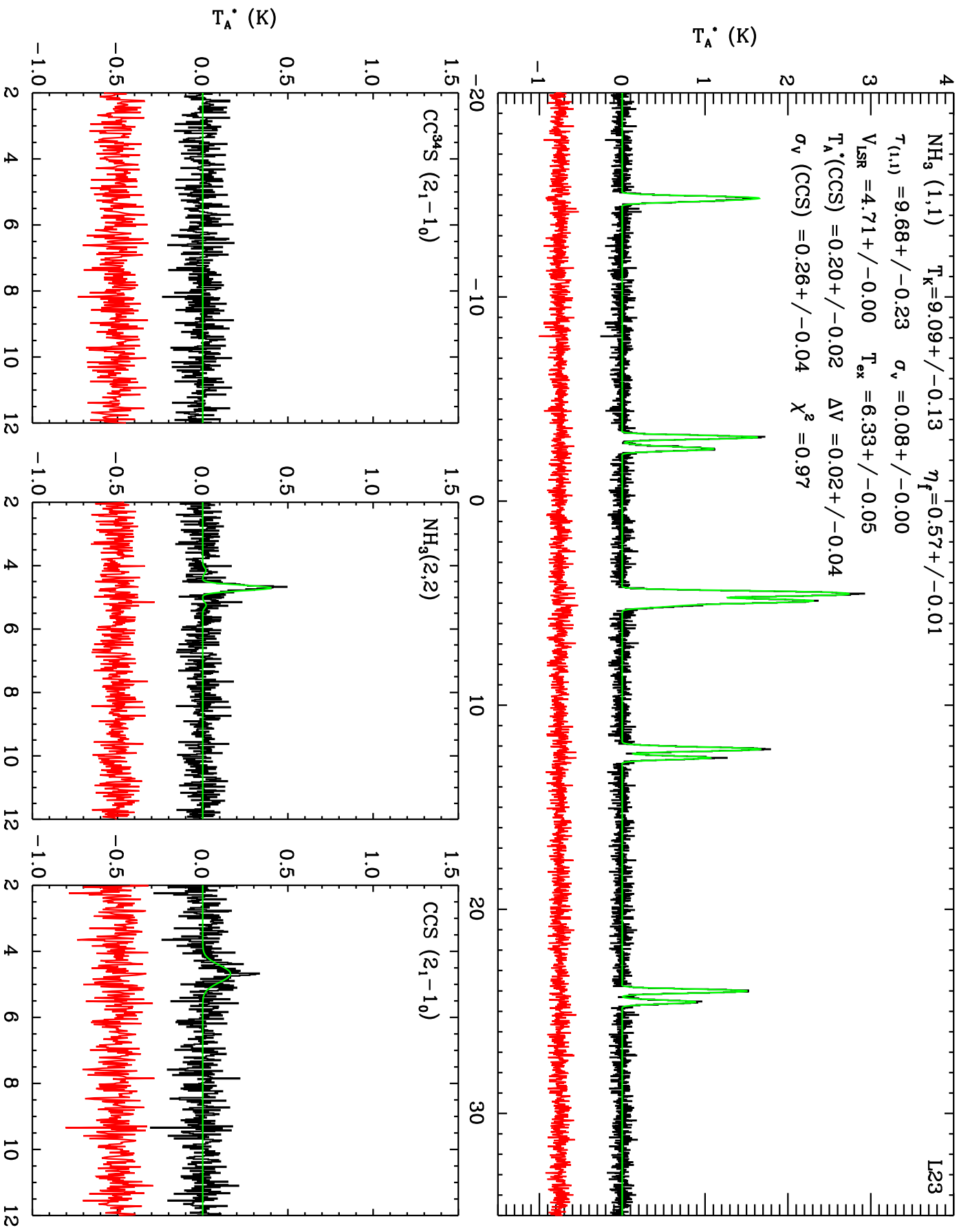
$\text{NH}_3(1,1)$ $T_K = 10.32 \pm 0.28$ $\eta_f = 0.45 \pm 0.02$
 $T_{(1,1)} = 5.03 \pm 0.33$ $\sigma_v = 0.11 \pm 0.00$
 $V_{\text{LSR}} = 4.86 \pm 0.00$ $T_{\text{ex}} = 6.19 \pm 0.15$
 $T_A^*(\text{CCS}) = 0.40 \pm 0.05$ $\Delta V = 0.01 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.17 \pm 0.03$ $\chi^2 = 0.93$



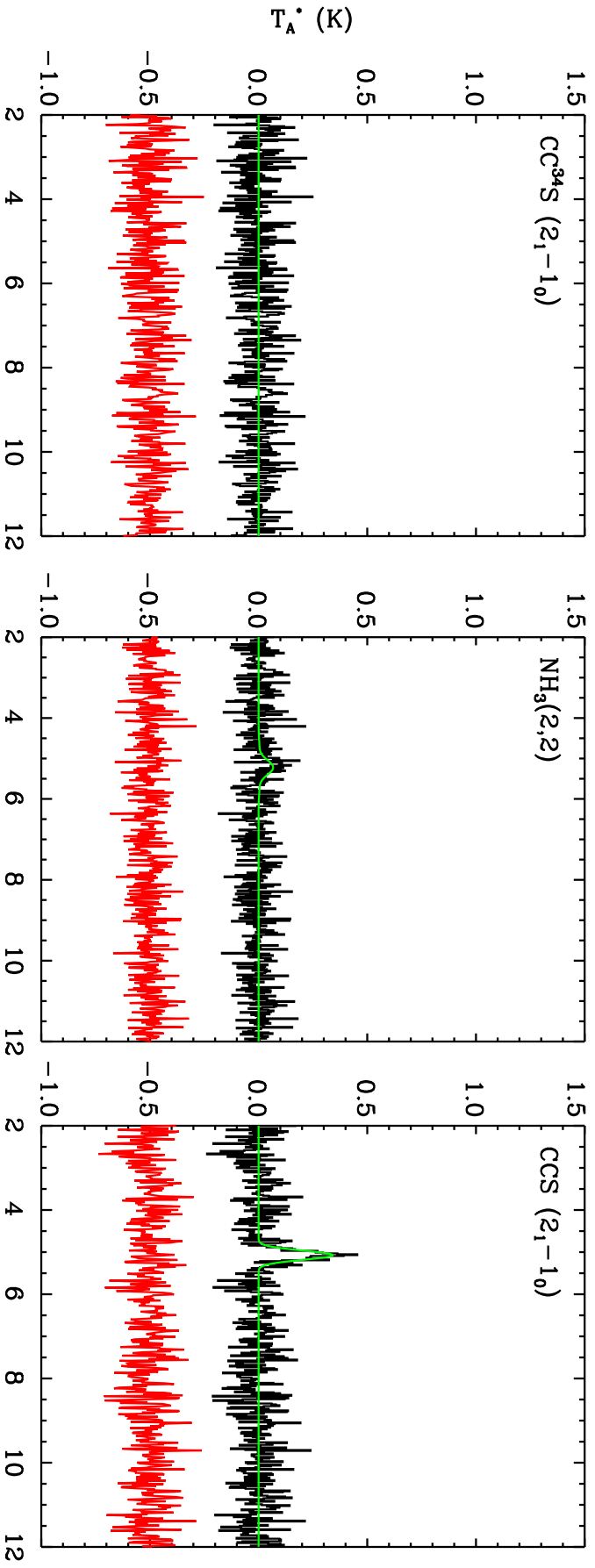
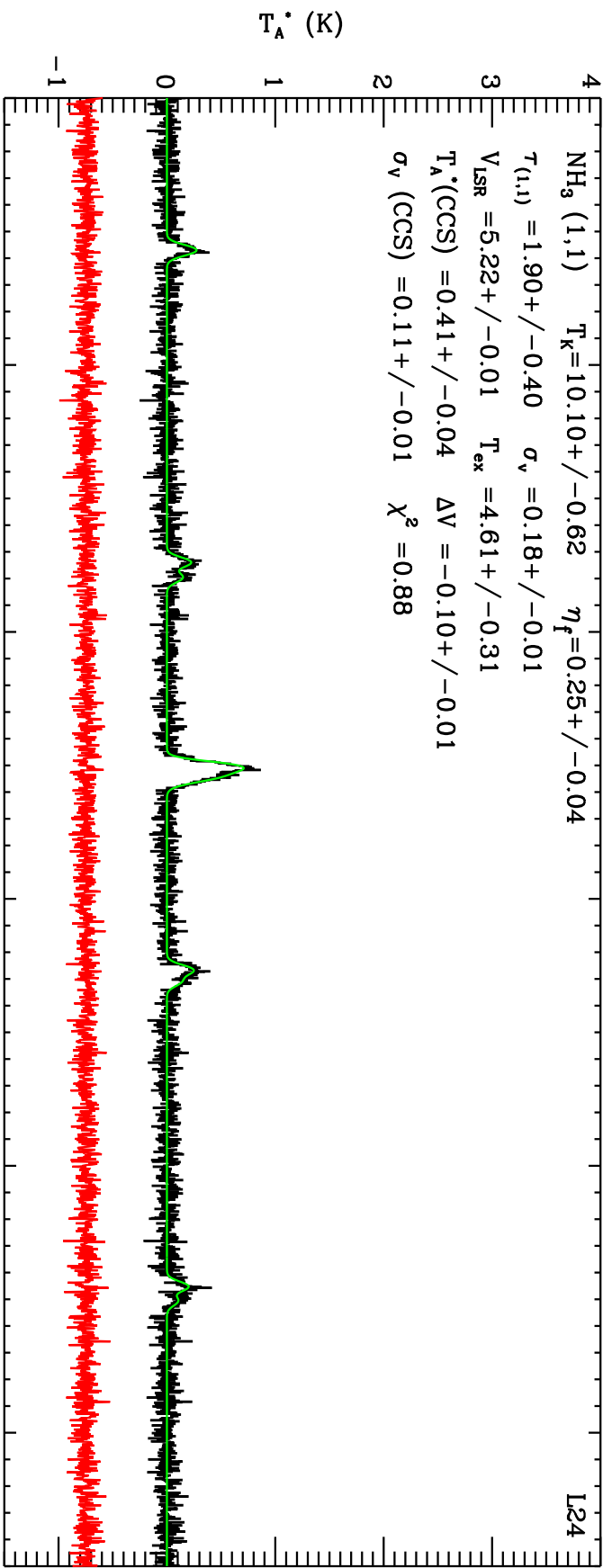
$\text{NH}_3(1,1)$ $T_K = 9.40 \pm 0.16$ $\eta_f = 0.49 \pm 0.01$
 $T_{(1,1)} = 6.59 \pm 0.20$ $\sigma_v = 0.13 \pm 0.00$
 $V_{\text{LSR}} = 4.94 \pm 0.00$ $T_{\text{ex}} = 5.99 \pm 0.06$
 $T_A^*(\text{CCS}) = 0.28 \pm 0.03$ $\Delta V = 0.22 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.18 \pm 0.02$ $\chi^2 = 0.92$



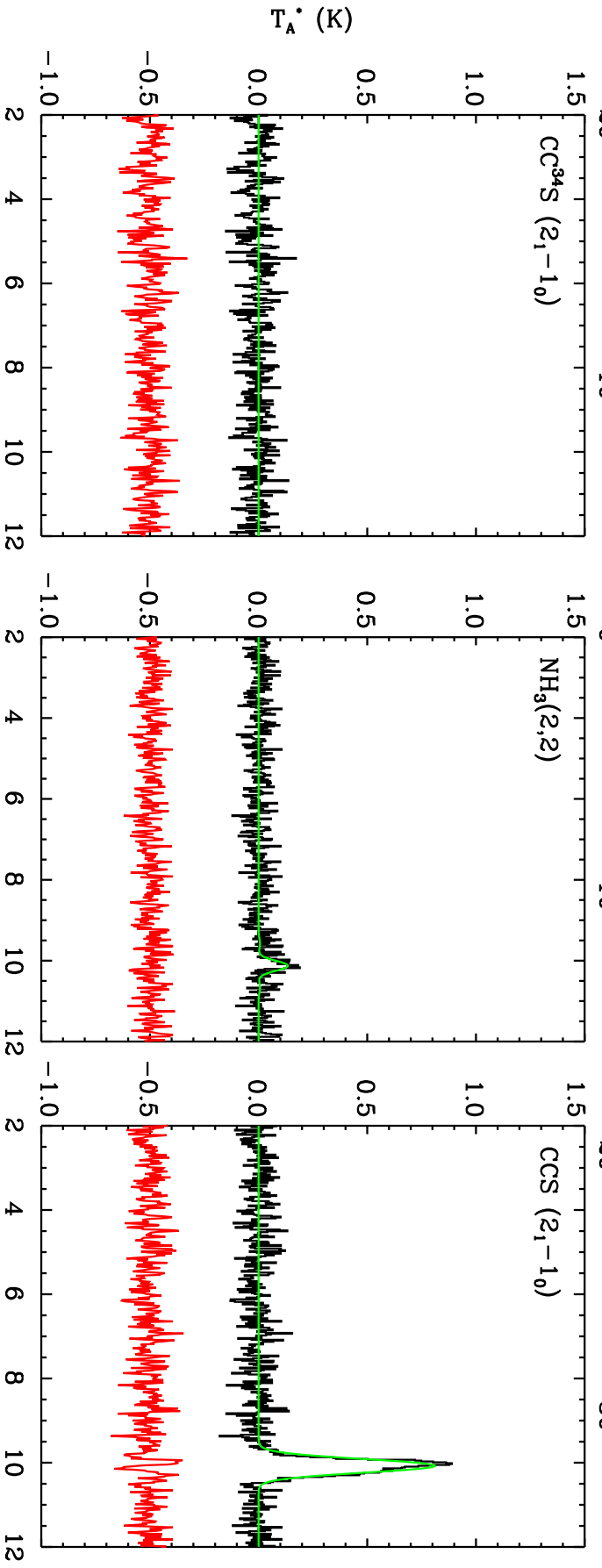
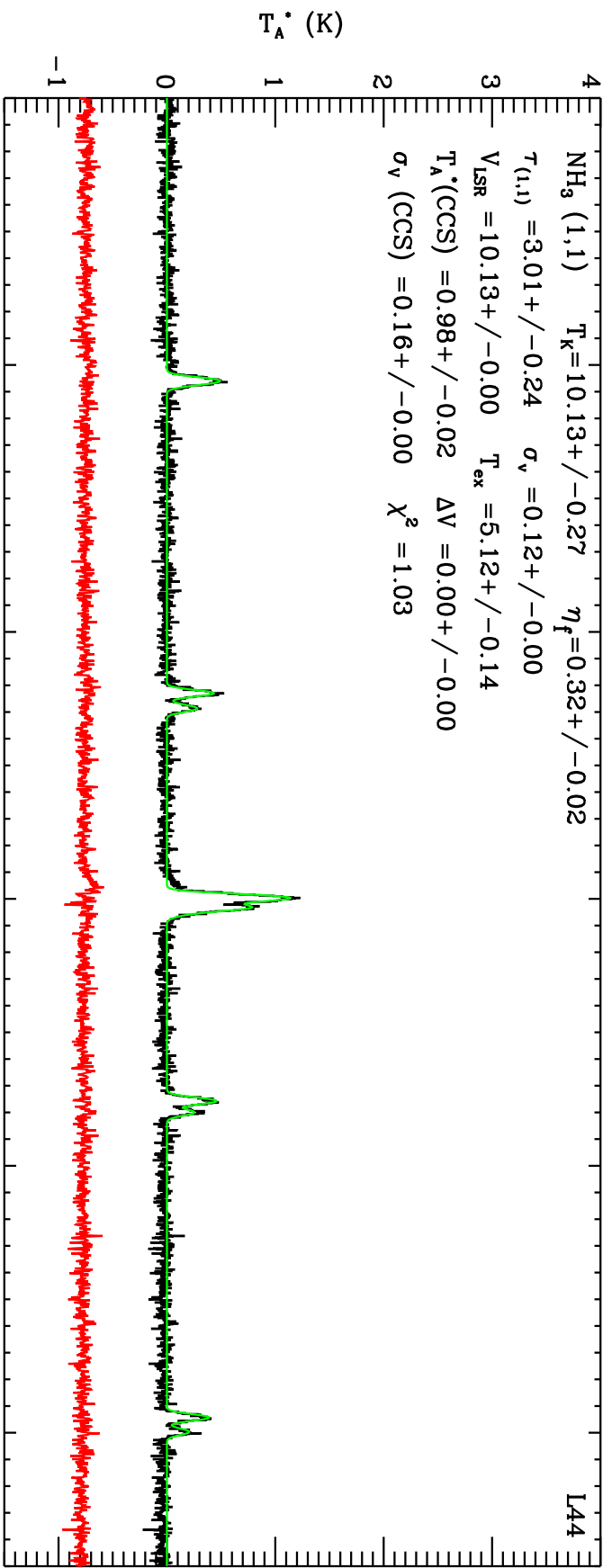
$\text{NH}_3(1,1)$ $T_K = 9.09 \pm 0.13$ $\eta_f = 0.57 \pm 0.01$
 $T_{(1,1)} = 9.68 \pm 0.23$ $\sigma_v = 0.08 \pm 0.00$
 $V_{\text{LSR}} = 4.71 \pm 0.00$ $T_{\text{ex}} = 6.33 \pm 0.05$
 $T_A^*(\text{CCS}) = 0.20 \pm 0.02$ $\Delta V = 0.02 \pm 0.04$
 $\sigma_v(\text{CCS}) = 0.26 \pm 0.04$ $\chi^2 = 0.97$



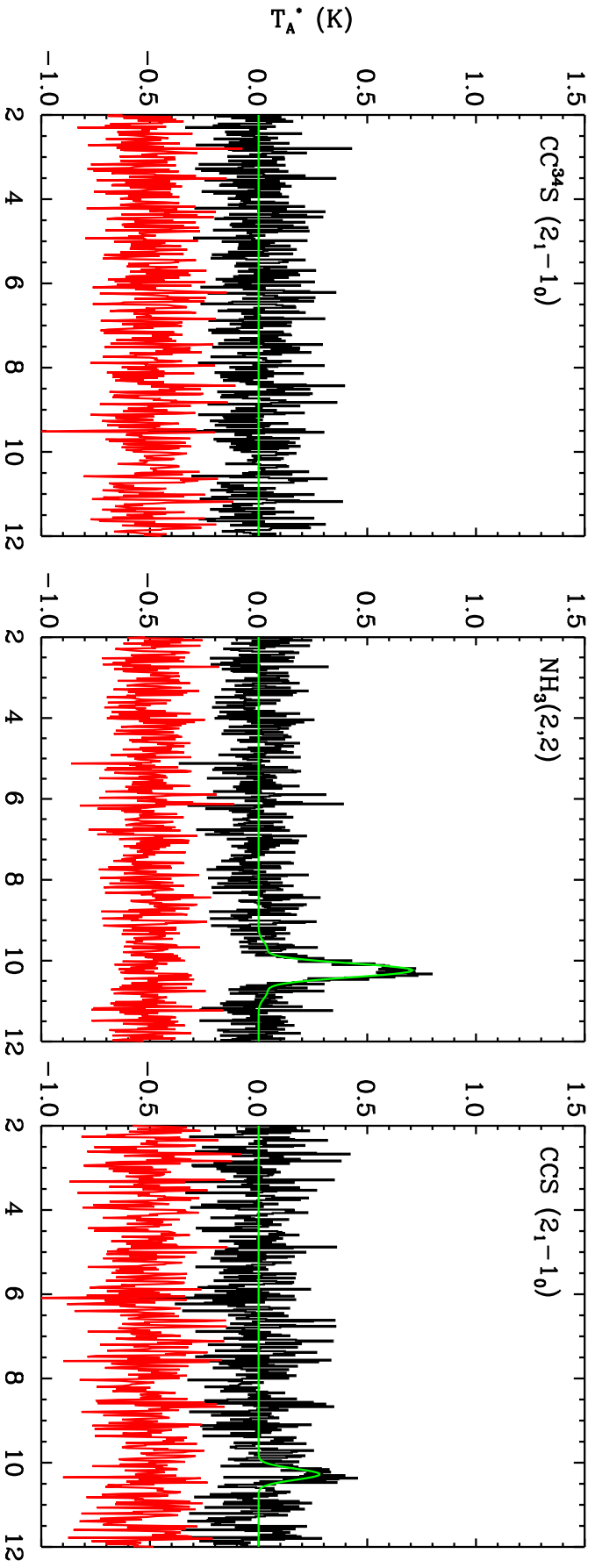
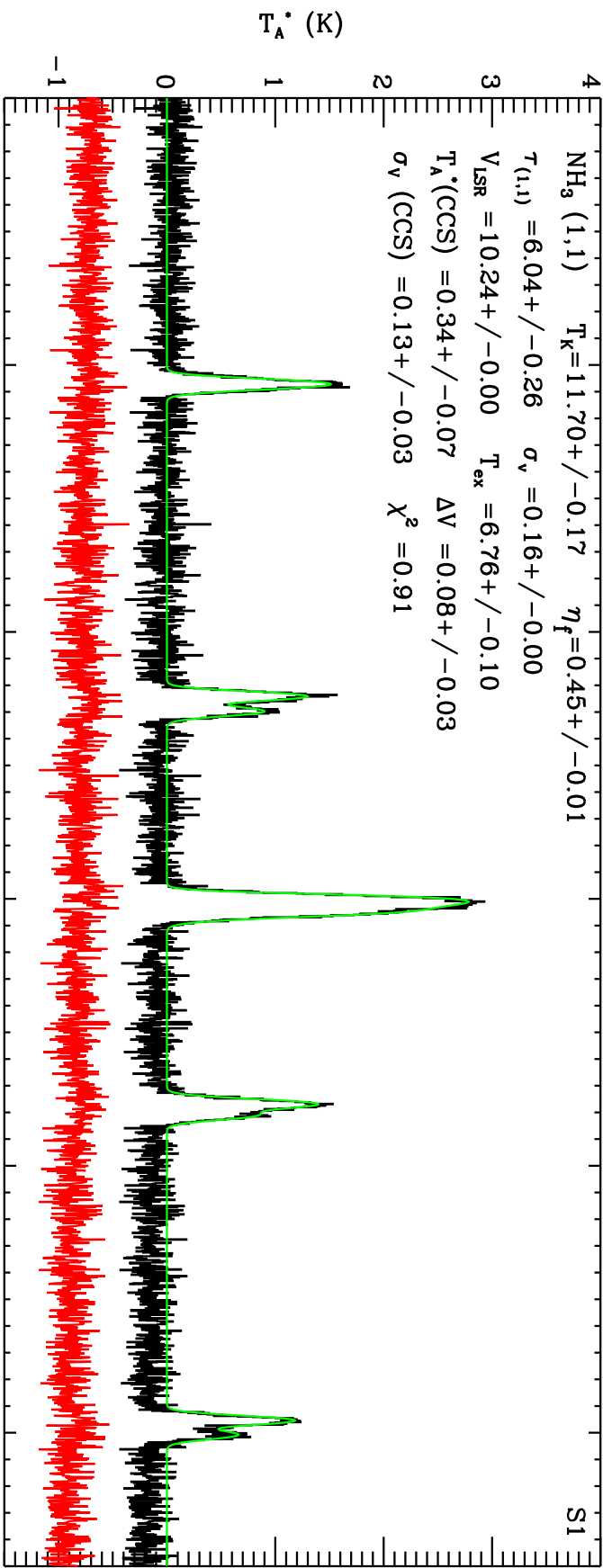
$\text{NH}_3(1,1)$ $T_K = 10.10 \pm 0.62$ $\eta_f = 0.25 \pm 0.04$
 $T_{(1,1)} = 1.90 \pm 0.40$ $\sigma_v = 0.18 \pm 0.01$
 $V_{\text{LSR}} = 5.22 \pm 0.01$ $T_{\text{ex}} = 4.61 \pm 0.31$
 $T_A^*(\text{CCS}) = 0.41 \pm 0.04$ $\Delta V = -0.10 \pm 0.01$
 $\sigma_v(\text{CCS}) = 0.11 \pm 0.01$ $\chi^2 = 0.88$



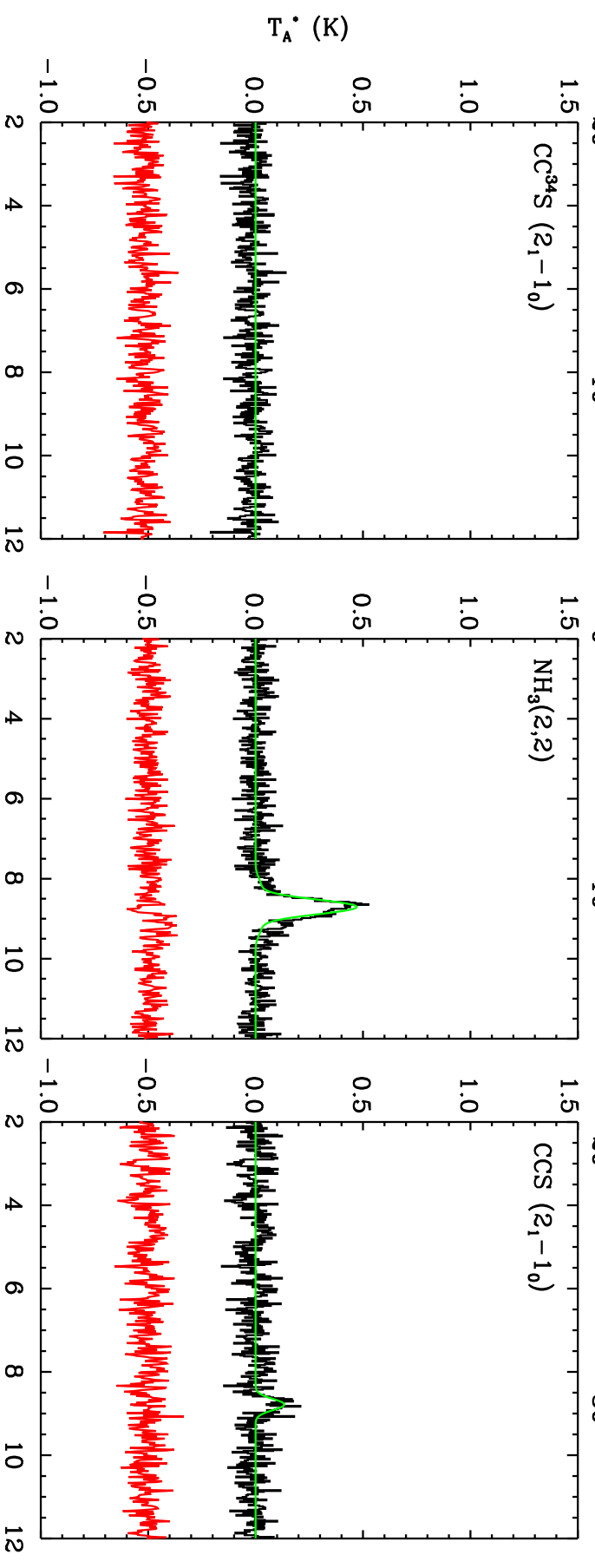
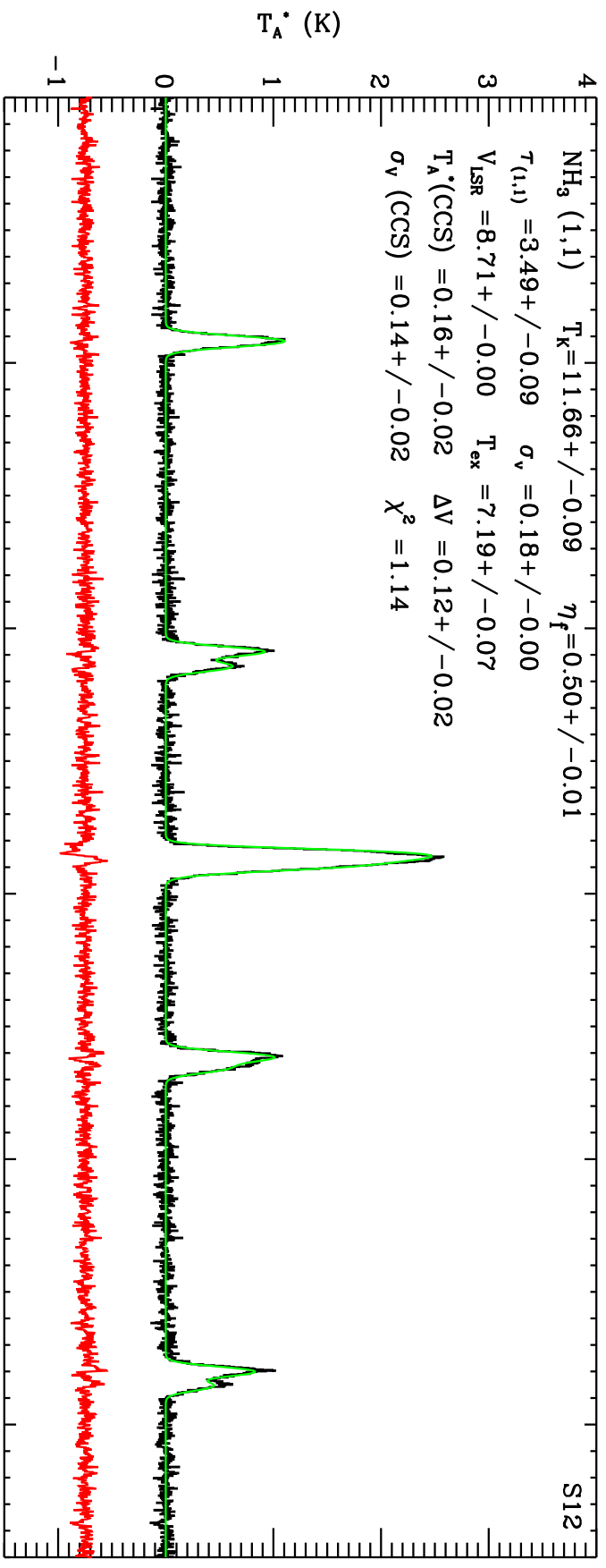
$\text{NH}_3(1,1)$ $T_K = 10.13 \pm 0.27$ $\eta_f = 0.32 \pm 0.02$
 $T_{(1,1)} = 3.01 \pm 0.24$ $\sigma_v = 0.12 \pm 0.00$
 $V_{\text{LSR}} = 10.13 \pm 0.00$ $T_{\text{ex}} = 5.12 \pm 0.14$
 $T_A^*(\text{CCS}) = 0.98 \pm 0.02$ $\Delta V = 0.00 \pm 0.00$
 $\sigma_v(\text{CCS}) = 0.16 \pm 0.00$ $\chi^2 = 1.03$



$\text{NH}_3(1,1)$ $T_K = 11.70 \pm 0.17$ $\eta_f = 0.45 \pm 0.01$
 $T_{(1,1)} = 6.04 \pm 0.26$ $\sigma_v = 0.16 \pm 0.00$
 $V_{\text{LSR}} = 10.24 \pm 0.00$ $T_{\text{ex}} = 6.76 \pm 0.10$
 $T_A^*(\text{CCS}) = 0.34 \pm 0.07$ $\Delta V = 0.08 \pm 0.03$
 $\sigma_v(\text{CCS}) = 0.13 \pm 0.03$ $\chi^2 = 0.91$

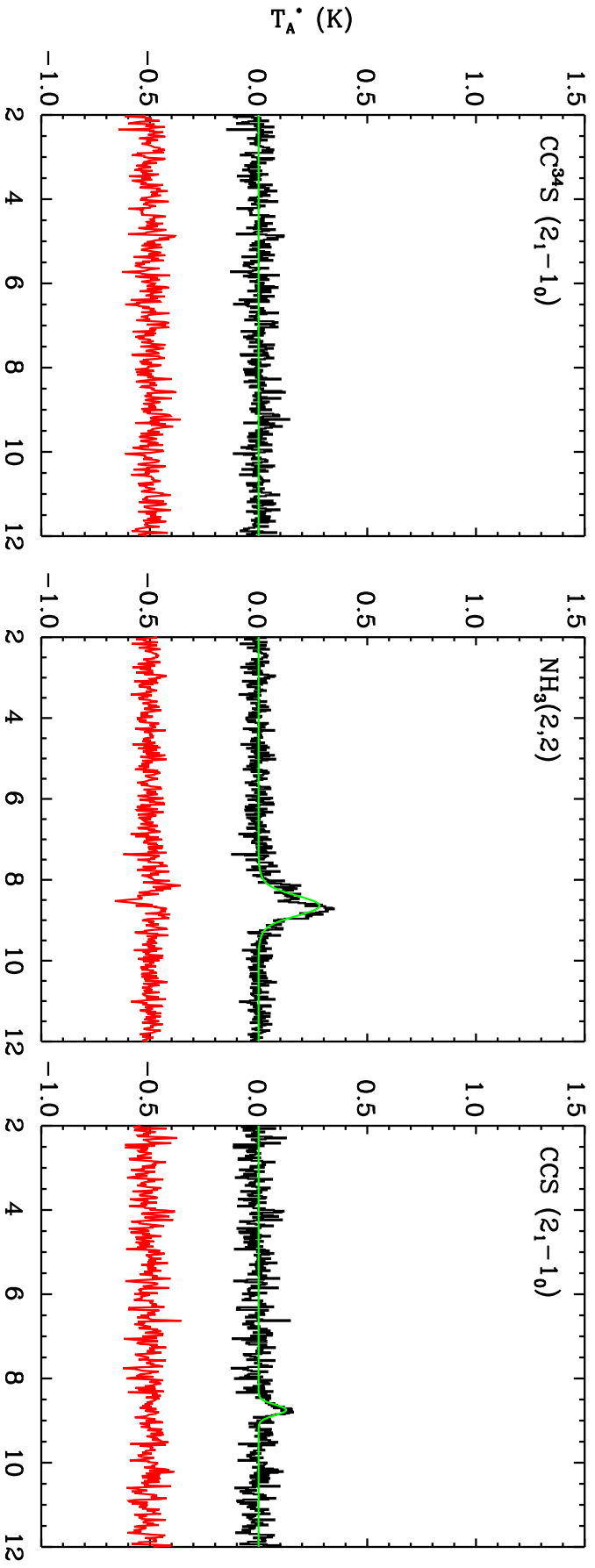
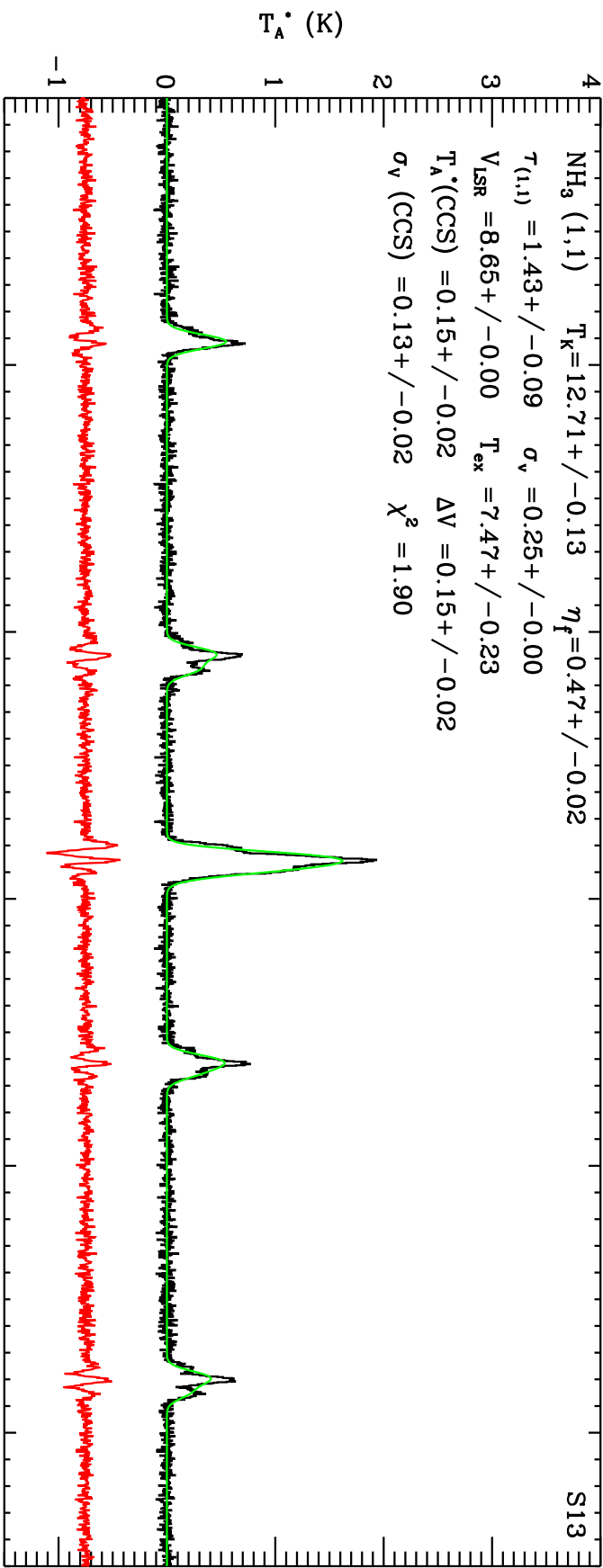


$\text{NH}_3(1,1)$ $T_K = 11.66 \pm 0.09$ $\eta_f = 0.50 \pm 0.01$
 $T_{(1,1)} = 3.49 \pm 0.09$ $\sigma_v = 0.18 \pm 0.00$
 $V_{\text{LSR}} = 8.71 \pm 0.00$ $T_{\text{ex}} = 7.19 \pm 0.07$
 $T_A^*(\text{CCS}) = 0.16 \pm 0.02$ $\Delta V = 0.12 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.14 \pm 0.02$ $\chi^2 = 1.14$

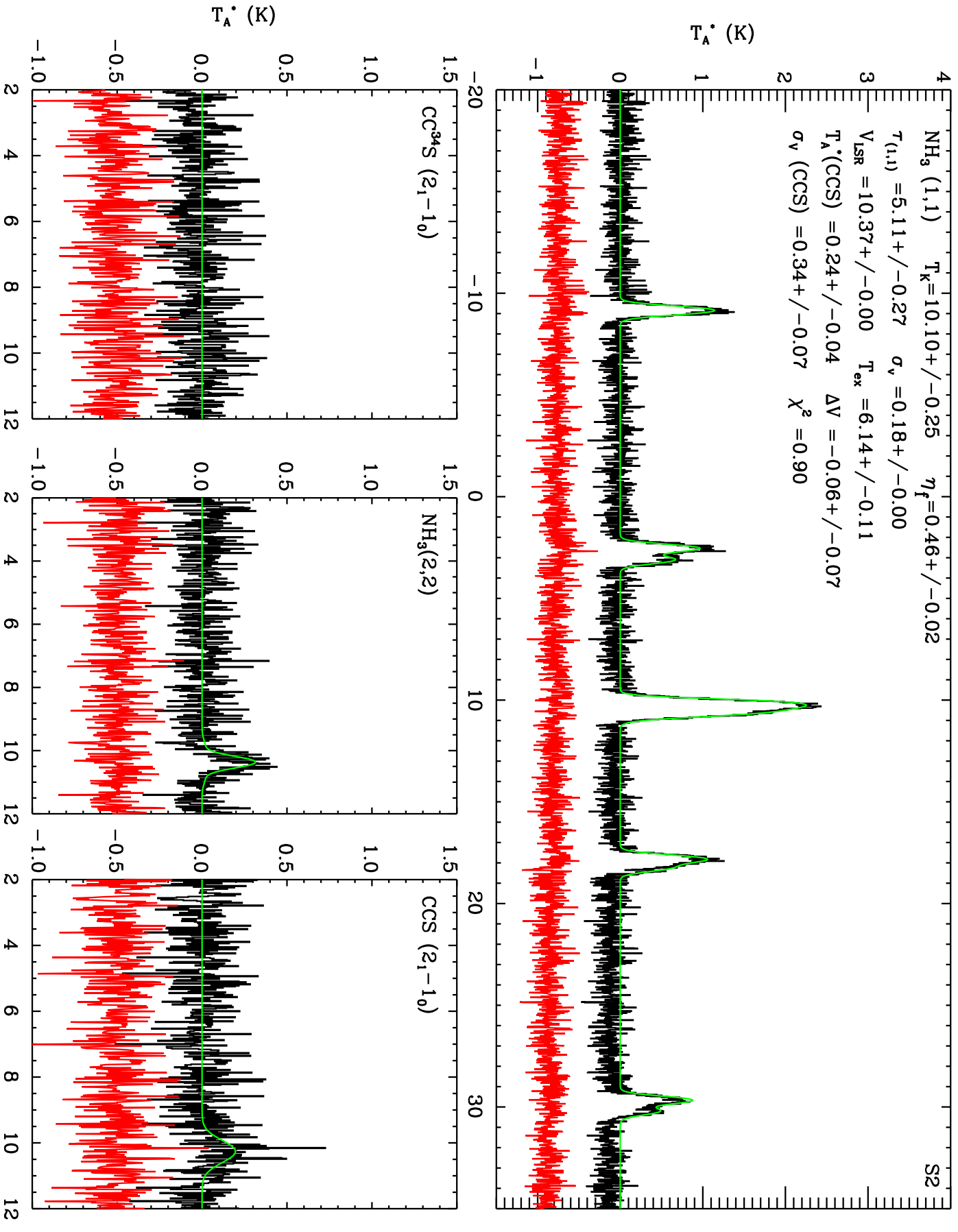


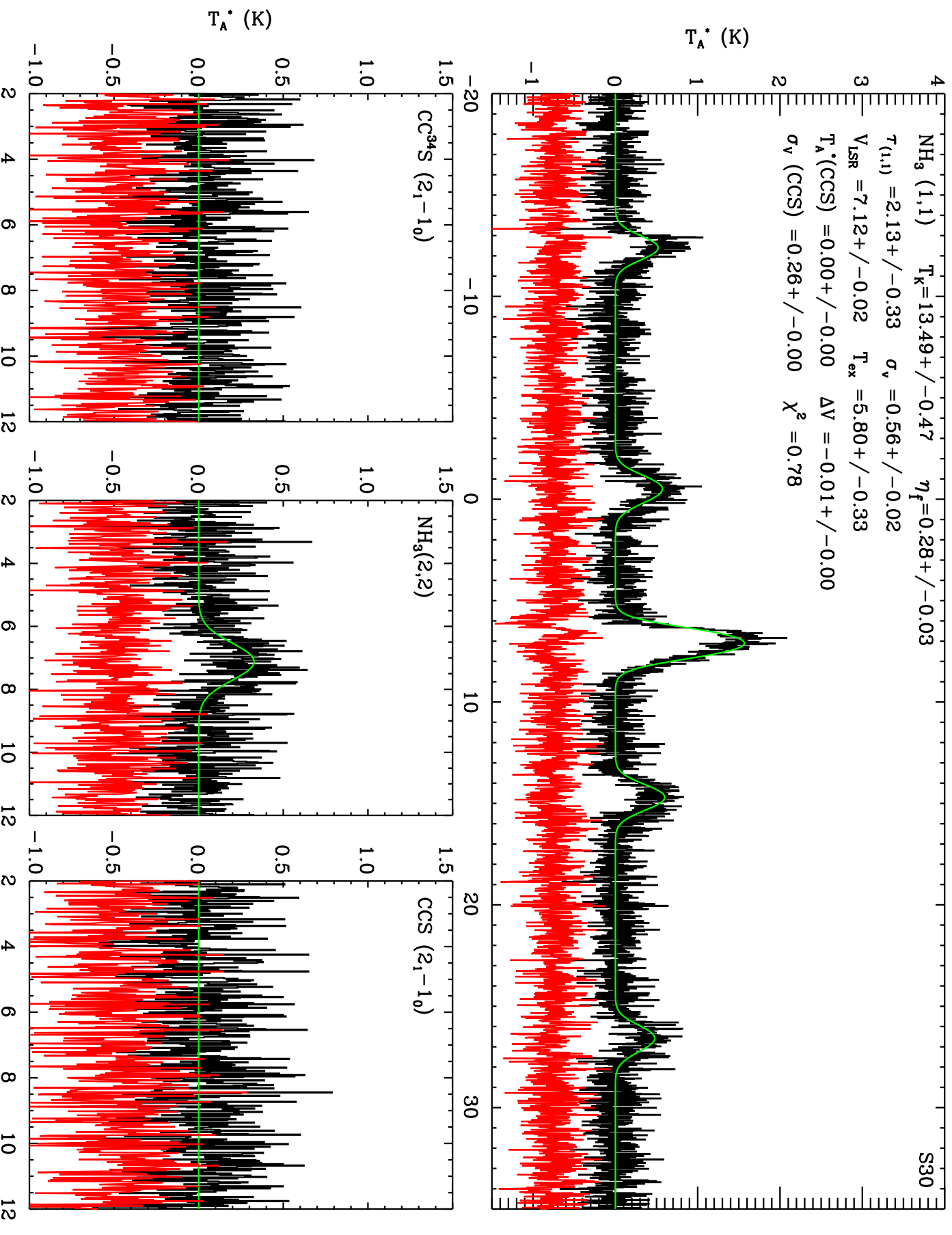
$\text{NH}_3(1,1)$ $T_K = 12.71 \pm 0.13$ $\eta_f = 0.47 \pm 0.02$
 $T_{(1,1)} = 1.43 \pm 0.09$ $\sigma_v = 0.25 \pm 0.00$
 $V_{\text{LSR}} = 8.65 \pm 0.00$ $T_{\text{ex}} = 7.47 \pm 0.23$
 $T_A^*(\text{CCS}) = 0.15 \pm 0.02$ $\Delta V = 0.15 \pm 0.02$
 $\sigma_v(\text{CCS}) = 0.13 \pm 0.02$ $\chi^2 = 1.90$

S13



$\text{NH}_3(1,1)$ $T_K = 10.10 \pm 0.25$ $\eta_f = 0.46 \pm 0.02$
 $T_{(1,1)} = 5.11 \pm 0.27$ $\sigma_v = 0.18 \pm 0.00$
 $V_{\text{LSR}} = 10.37 \pm 0.00$ $T_{\text{ex}} = 6.14 \pm 0.11$
 $T_A^*(\text{CCS}) = 0.24 \pm 0.04$ $\Delta V = -0.06 \pm 0.07$
 $\sigma_v(\text{CCS}) = 0.34 \pm 0.07$ $\chi^2 = 0.90$





S32

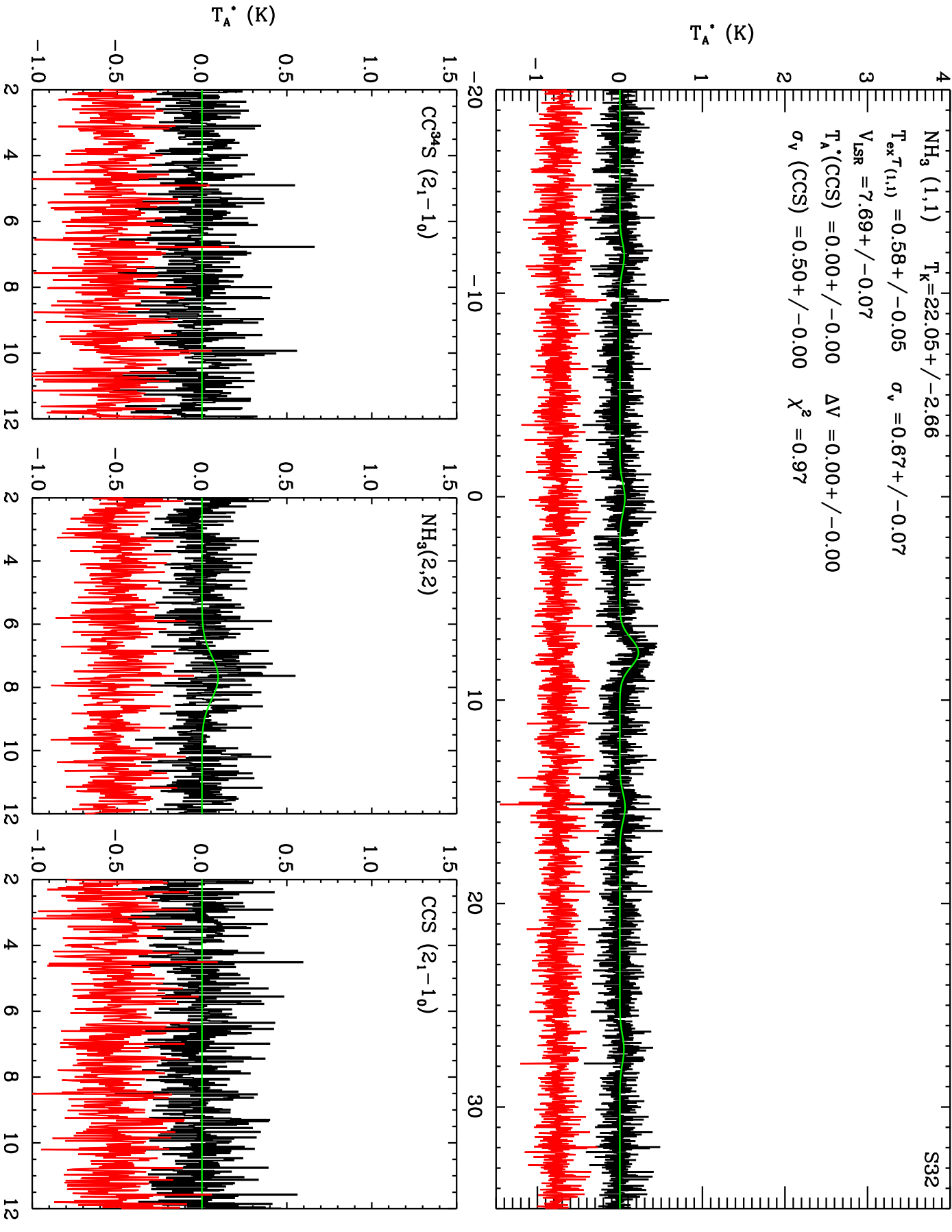
NH₃ (1,1) $T_K = 22.05 \pm 2.66$

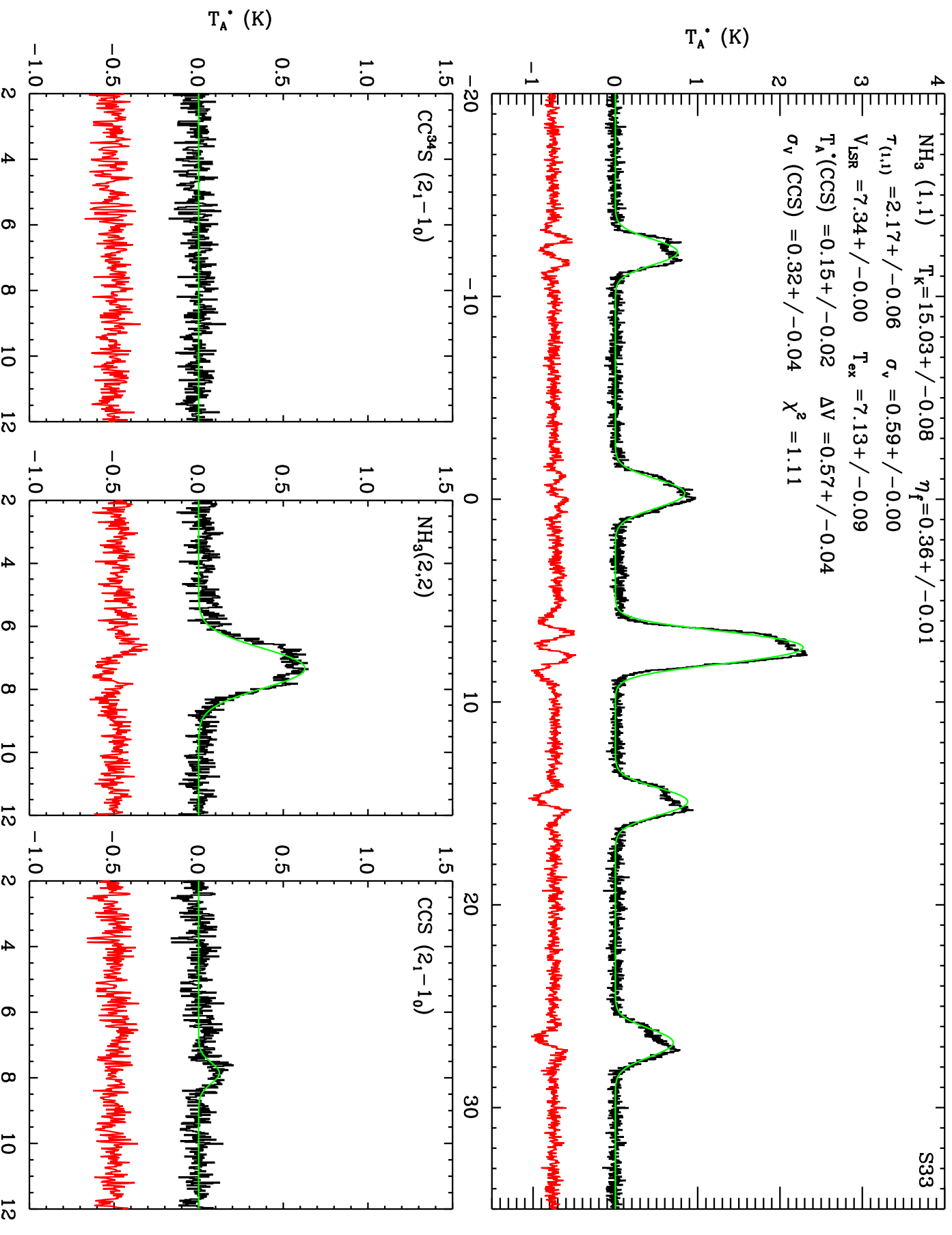
$T_{\text{ex}}^{T(1,1)} = 0.58 \pm 0.05$ $\sigma_v = 0.67 \pm 0.07$

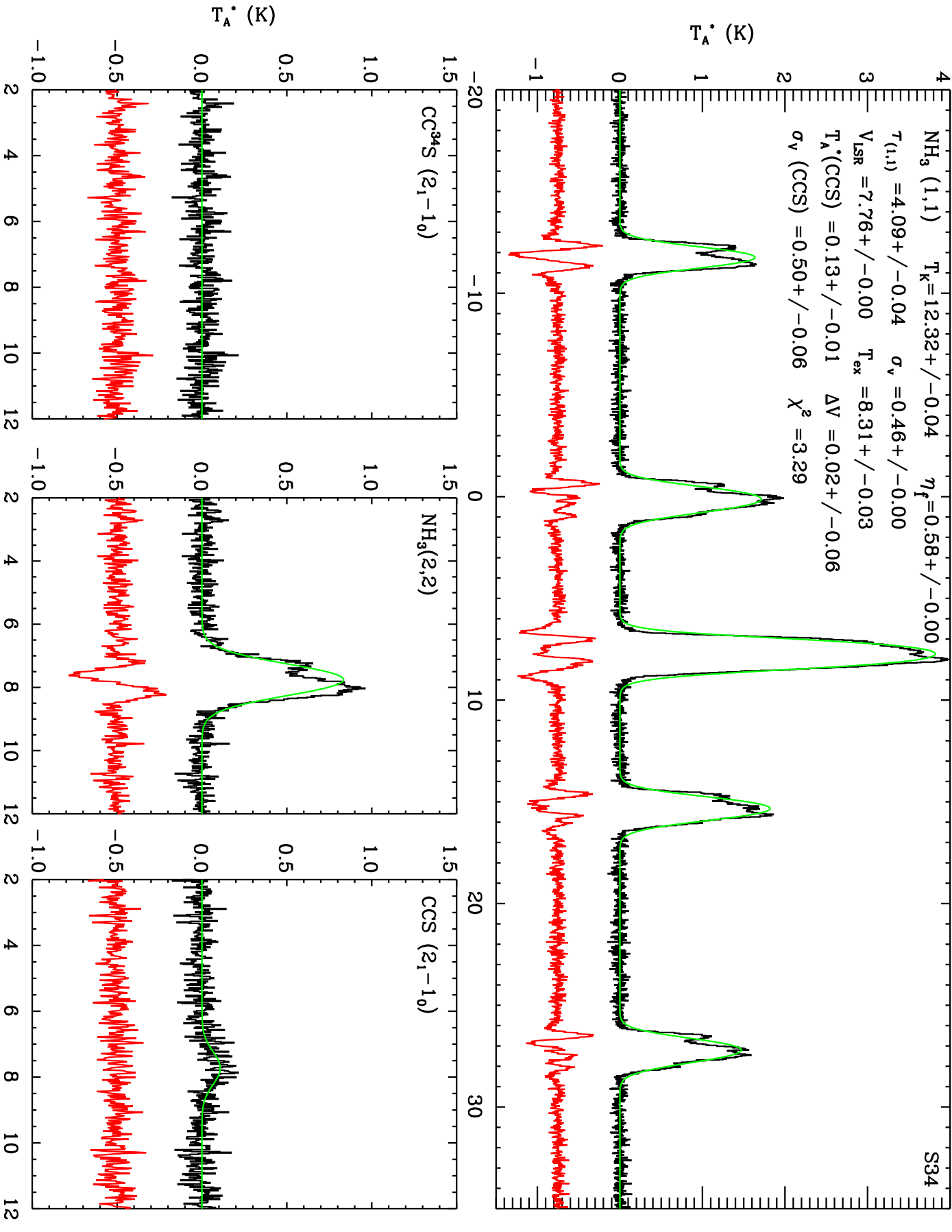
$V_{\text{LSR}} = 7.69 \pm 0.07$

$T_A^*(\text{CCS}) = 0.00 \pm 0.00$ $\Delta V = 0.00 \pm 0.00$

$\sigma_v(\text{CCS}) = 0.50 \pm 0.00$ $\chi^2 = 0.97$







S35

NH₃ (1,1) T_K=23.03+/-1.10

T_{ex}^{T(1,1)} = 0.44+/-0.02 σ_v = 0.72+/-0.03

V_{LSR} = 7.81+/-0.03

T_A^{*}(CCS) = 0.00+/-0.00 ΔV = 0.27+/-0.00

σ_v (CCS) = 0.16+/-0.00 χ² = 0.90

