**Table 5.1.** Fitting results for cool and hot phases at |z| = H

				cool					hot		
X	Y	$\alpha$	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ρ	$\alpha$	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ρ
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$\Sigma_{ m SFR,40}$	$\eta_M$	$-0.07^{+0.16}_{-0.15}$	$-0.44^{+0.08}_{-0.08}$	0.019	$0.20^{+0.19}_{-0.11}$	$-0.98^{+0.08}_{-0.02}$	$-0.86^{+0.14}_{-0.11}$	$-0.07^{+0.08}_{-0.06}$	0.019	$0.17^{+0.16}_{-0.09}$	$-0.64^{+0.71}_{-0.31}$
511,40	$\eta_p$	$-1.43^{+0.14}_{-0.14}$	$-0.29^{+0.07}_{-0.07}$	0.033	$0.18^{+0.17}_{-0.09}$	$-0.96^{+0.14}_{-0.03}$	$-1.01^{+0.10}_{-0.10}$	$0.02^{+0.06}_{-0.06}$	0.009	$0.12^{+0.13}_{-0.07}$	$0.25^{+0.59}_{-0.86}$
	$\eta_E$	$-2.23^{+0.13}_{-0.13}$	$-0.12^{+0.06}_{-0.06}$	0.013	$0.15^{+0.15}_{-0.08}$	$-0.86^{+0.40}_{-0.12}$	$-0.70^{+0.12}$	$0.14_{-0.08}^{+0.08}$	0.012	$0.16^{+0.16}_{-0.09}$	$0.87^{+0.11}_{-0.44}$
	$\eta_Z^{ m SN}$	$-0.85^{+0.17}_{-0.17}$	$-0.02^{+0.12}_{-0.11}$	0.112	$0.20^{+0.26}_{-0.11}$	$-0.16^{+0.77}_{-0.64}$	$-0.61^{+0.11}_{-0.12}$	$0.11^{+0.07}_{-0.07}$	0.010	$0.14^{+0.14}_{-0.07}$	$0.87^{+0.12}_{-0.46}$
	$\overline{v}_{ m out}$	$1.78^{+0.07}_{-0.07}$	$0.23^{+0.04}_{-0.04}$	0.004	$0.11^{+0.09}_{-0.05}$	$0.97^{+0.02}_{-0.08}$	$2.72^{+0.05}_{-0.06}$	$0.16^{+0.03}_{-0.03}$	0.002	$0.07^{+0.07}_{-0.03}$	$0.98^{+0.02}_{-0.08}$
	$\overline{v}_{\mathcal{B}}$	$1.92^{+0.07}_{-0.07}$	$0.17^{+0.03}_{-0.03}$	0.004	$0.10^{+0.08}_{-0.04}$	$0.95^{+0.03}_{-0.11}$	$3.04^{+0.08}_{-0.08}$	$0.11^{+0.04}_{-0.04}$	0.005	$0.12^{+0.09}_{-0.05}$	$0.86^{+0.10}_{-0.29}$
	ζ	$0.04^{+0.01}_{-0.01}$	$0.01^{+0.00}_{-0.00}$	0.000	$0.01^{+0.01}_{-0.01}$	$0.87^{+0.10}_{-0.30}$	$0.25^{+0.05}_{-0.05}$	$0.03^{+0.02}_{-0.03}$	0.002	$0.08^{+0.06}_{-0.03}$	$0.64^{+0.26}_{-0.53}$
$\Sigma_{ m gas}$	$\eta_M$	$2.17^{+0.36}_{-0.34}$	$-1.16^{+0.24}_{-0.25}$	-0.168	$0.27^{+0.23}_{-0.13}$	$-0.96^{+0.13}_{-0.03}$	$-0.47^{+0.26}_{-0.31}$	$-0.20^{+0.21}_{-0.18}$	-0.086	$0.16^{+0.16}_{-0.09}$	$-0.67^{+0.69}_{-0.28}$
	$\eta_p$	$0.04_{-0.28}^{+0.28} \\ -1.62_{-0.25}^{+0.26}$	$-0.76^{+0.20}_{-0.19}$	-0.266	$0.19^{+0.18}_{-0.10}$	$-0.95^{+0.16}_{-0.04}$	$-1.06^{+0.24}_{-0.26}$	$0.02^{+0.17}_{-0.16}$	-0.062	$0.12^{+0.13}_{-0.07}$	$0.11^{+0.68}_{-0.81}$ $0.81^{+0.16}_{-0.49}$ $0.81^{+0.16}_{-0.52}$
	$\eta_E$	$-1.62^{+0.26}_{-0.25}$	$-0.32^{+0.18}_{-0.18}$	-0.075	$0.16^{+0.16}_{-0.08}$	$-0.85^{+0.41}_{-0.12}$	$-1.36^{+0.33}_{-0.33}$	$0.34^{+0.22}_{-0.22}$	-0.101	$0.18^{+0.16}_{-0.09}$	$0.81^{+0.16}_{-0.49}$
	$\eta_Z^{ m SN}$	$-0.71^{+0.48}_{-0.50}$	$-0.07^{+0.32}_{-0.31}$	-0.441	$0.19^{+0.25}_{-0.11}$	$-0.21^{+0.78}_{-0.60}$	$-1.15^{+0.29}_{-0.29}$	$0.27^{+0.19}_{-0.19}$	-0.085	$0.16^{+0.14}_{-0.08}$	$0.81^{+0.16}_{-0.52}$
	$\overline{v}_{ m out}$	$0.65^{+0.21}_{-0.21}$ $1.09^{+0.17}_{-0.17}$ $-0.02^{+0.02}_{-0.02}$	$0.59^{+0.15}_{-0.15}$	-0.070	$0.18^{+0.13}_{-0.06}$	$0.93^{+0.05}_{-0.17}$	$1.92^{+0.15}_{-0.15}$	$0.41^{+0.10}_{-0.10}$	-0.026	$0.11^{+0.09}_{-0.04}$	$\begin{array}{c} 0.52 \\ 0.94 \\ -0.16 \\ 0.81 \\ -0.34 \\ 0.60 \\ -0.54 \\ \end{array}$
	$\overline{v}_{\mathcal{B}}$	$1.09^{+0.17}_{-0.17}$	$0.43^{+0.12}_{-0.12}$	-0.037	$0.15^{+0.10}_{-0.05}$	$0.91_{-0.19}^{+0.07} \\ 0.83_{-0.34}^{+0.13}$	$2.52^{+0.18}_{-0.17} \ 0.10^{+0.10}_{-0.09}$	$0.27^{+0.12}_{-0.12}$	-0.035	$0.14^{+0.11}_{-0.05}$	$0.81_{-0.34}^{+0.11}$
	ζ	$-0.02^{+0.02}_{-0.02}$	$0.03^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.83_{-0.34}^{+0.06}$	$0.10^{+0.09}_{-0.09}$	$0.08^{+0.07}_{-0.07}$	-0.013	$0.08^{+0.06}_{-0.03}$	$0.60_{-0.54}^{+0.70}$
$n_{ m mid}$	$\eta_M$	$0.95^{+0.11}_{-0.10} \\ -0.76^{+0.10}_{-0.10}$	$-0.75^{+0.11}_{-0.11}$	-0.010	$0.16^{+0.17}_{-0.09}$	$-0.99^{+0.06}_{-0.01}$	$-0.69_{-0.12}^{+0.11}$ $-1.04_{-0.11}^{+0.10}$ $-1.01_{-0.12}^{+0.12}$	$-0.12^{+0.14}_{-0.11}$	-0.025	$0.17^{+0.18}_{-0.09}$	$-0.64^{+0.70}_{-0.30}$
	$\eta_p$	$-0.76_{-0.10}^{+0.10}$ $-1.96_{-0.10}^{+0.10}$	$-0.49_{-0.11}^{+0.11} \\ -0.20_{-0.11}^{+0.11}$	-0.008 $-0.008$	$0.14^{+0.15}_{-0.08}$ $0.15^{+0.14}_{-0.08}$ $0.15^{+0.14}_{-0.10}$	$-0.98_{-0.02}$	$-1.04_{-0.11}$	$0.02_{-0.11}^{+0.11}$ $0.23_{-0.13}^{+0.13}$	-0.010 $-0.015$	$0.13^{+0.14}_{-0.07}$ $0.16^{+0.15}_{-0.08}$	$0.17_{-0.81}$
	$\eta_E \ \eta_Z^{ m SN}$	$-0.80^{+0.17}_{-0.19}$	$-0.20_{-0.11}$ $-0.03_{-0.19}^{+0.21}$	-0.008 $-0.178$	$0.13_{-0.08}$ $0.18^{+0.24}$	$-0.87_{-0.11}$ $-0.14^{+0.77}$	$-0.88^{+0.11}_{-0.11}$	$0.23_{-0.13}^{+0.13}$ $0.19_{-0.12}^{+0.11}$	-0.013 $-0.011$	$0.10_{-0.08}^{+0.10}$ $0.13_{-0.07}^{+0.14}$	$0.87^{+0.42}$
	$\overline{v}_{ m out}$	$1.27^{+0.06}$	$0.38^{+0.07}_{-0.07}$	-0.004	$0.10^{+0.10}$	$0.97^{+0.03}$	$2.35^{+0.04}_{-0.04}$	$0.13_{-0.12}^{+0.12}$ $0.28_{-0.05}^{+0.05}$	-0.002	$0.06^{+0.07}_{-0.03}$	$0.98^{+0.01}$
	$\overline{v}_{\mathcal{B}}$	$1.55^{+0.05}_{-0.05}$	$0.28^{+0.06}_{-0.05}$	-0.002	$0.10^{+0.08}_{-0.04}$	$0.96^{+0.03}_{-0.11}$	$2.80^{+0.06}_{-0.06}$	$0.18^{+0.06}_{-0.07}$	-0.003	$0.12^{+0.09}_{-0.05}$	$0.88^{+0.09}_{-0.02}$
	ζ	$\begin{array}{c} 3.63 - 0.19 \\ 1.27 + 0.06 \\ -0.06 \\ 1.55 + 0.05 \\ 0.01 + 0.01 \\ 0.01 \end{array}$	$0.02^{+0.01}_{-0.01}$	-0.000	$0.12_{-0.05}^{+0.10}$ $0.10_{-0.05}^{+0.08}$ $0.10_{-0.04}^{+0.01}$ $0.01_{-0.01}^{+0.01}$	$\begin{array}{c} -0.33 - 0.01 \\ -0.98 - 0.02 \\ -0.02 \\ -0.87 + 0.38 \\ -0.11 \\ -0.14 + 0.77 \\ -0.67 \\ 0.97 + 0.03 \\ -0.10 \\ 0.96 + 0.03 \\ -0.11 \\ 0.89 + 0.09 \\ -0.26 \\ \end{array}$	$0.18^{+0.04}_{-0.03}$	$0.05^{+0.04}_{-0.04}$	-0.001	$0.12_{-0.05}^{+0.09} \\ 0.07_{-0.03}^{+0.05}$	$0.03_{-0.30}$ $0.17_{-0.81}^{+0.65}$ $0.87_{-0.81}^{+0.11}$ $0.87_{-0.42}^{+0.11}$ $0.87_{-0.44}^{+0.11}$ $0.98_{-0.44}^{+0.01}$ $0.88_{-0.28}^{+0.01}$ $0.66_{-0.51}^{+0.25}$
$P_{\rm mid}/k_B$	$\eta_M$	$3.16^{+0.40}_{-0.41}$	$-0.51^{+0.08}_{-0.08}$	-0.059	$0.18^{+0.17}_{-0.09}$	$-0.98^{+0.07}_{-0.01}$	$-0.35^{+0.41}_{-0.45}$	$-0.08^{+0.09}_{-0.07}$	-0.059	$0.16^{+0.16}_{-0.09}$	$-0.66^{+0.70}_{-0.29}$
	$\eta_p$	$0.69^{+0.39}_{-0.39}$	$-0.34^{+0.08}_{-0.08}$	-0.051	$0.16^{+0.16}_{-0.09}$	$-0.97^{+0.12}_{-0.03}$	$-1.11^{+0.36}_{-0.38}$	$0.02^{+0.07}_{-0.07}$	-0.038	$0.12^{+0.12}_{-0.07}$	$0.21^{+0.61}_{-0.82}$
	$\eta_E$	$-1.39^{+0.37}_{-0.38}$	$-0.13^{+0.07}_{-0.07}$	-0.046	$0.15^{+0.14}_{-0.08}$	$-0.85^{+0.41}_{-0.12}$	$-1.68^{+0.47}_{-0.44}$	$0.16^{+0.08}_{-0.09}$	-0.061	$0.15^{+0.15}_{-0.08}$	$0.87^{+0.11}_{-0.41}$
	$\eta_Z^{\mathrm{SN}}$	$-0.75^{+0.69}_{-0.71}$	$-0.02^{+0.13}_{-0.13}$	-1.878	$0.19^{+0.25}_{-0.11}$	$-0.11^{+0.74}_{-0.67}$	$-1.47^{+0.41}_{-0.38}$	$0.14^{+0.07}_{-0.08}$	-0.046	$0.13^{+0.13}_{-0.07}$	$0.88^{+0.11}_{-0.42}$
	$\overline{v}_{\mathrm{out}}$	$0.14^{+0.15}_{-0.17}$	$0.26^{+0.03}_{-0.03}$	-0.008	$0.07^{+0.06}_{-0.04}$	$0.99^{+0.01}_{-0.04}$	$1.54^{+0.14}_{-0.14}$	$0.19^{+0.03}_{-0.03}$	-0.006	$0.05^{+0.05}_{-0.03}$	$0.99^{+0.01}_{-0.05}$
	$\overline{v}_{\mathcal{B}}$	$0.71^{+0.14}_{-0.15}$	$0.19_{-0.03}^{+0.03}$	-0.008	$0.08^{+0.06}_{-0.03}$	$0.98^{+0.02}_{-0.07}$	$2.26^{+0.22}_{-0.20}$	$0.12^{+0.04}_{-0.04}$	-0.015	$0.11^{+0.08}_{-0.04}$	$0.90^{+0.08}_{-0.25}$
	ζ	$-0.04^{+0.02}_{-0.02}$	$0.01^{+0.00}_{-0.00}$	-0.000	$0.01^{+0.01}_{-0.01}$	$0.90^{+0.08}_{-0.24}$	$0.01^{+0.15}_{-0.14}$	$0.04^{+0.03}_{-0.03}$	-0.009	$0.07^{+0.05}_{-0.03}$	$0.67^{+0.24}_{-0.49}$
$\mathcal{W}/k_B$	$\eta_M$	$3.23^{+0.39}_{-0.42} \\ 0.73^{+0.38}_{-0.38}$	$-0.54^{+0.08}_{-0.08}$	-0.064	$0.17^{+0.16}_{-0.09}$	$-0.99^{+0.06}_{-0.01}$	$-0.31^{+0.40}_{-0.48}$	$-0.09^{+0.09}_{-0.08}$	-0.064	$0.17^{+0.16}_{-0.09}$	$-0.66^{+0.69}_{-0.29}$
	$\eta_p$	$0.73^{+0.36}_{-0.38}$	$-0.35^{+0.07}_{-0.08}$	-0.064	$0.16^{+0.16}_{-0.08}$	$-0.97^{+0.12}_{-0.03}$	$-1.12^{+0.39}_{-0.40}$	$0.02^{+0.08}_{-0.07}$	-0.048	$0.12^{+0.13}_{-0.07}$	$0.24^{+0.60}_{-0.88}$
	$\eta_E$ $_{\sim}$ SN	$-1.35^{+0.40}_{-0.39}$	$-0.14^{+0.08}_{-0.08}$	-0.050	$0.16^{+0.15}_{-0.08}$	$-0.84^{+0.40}_{-0.13}$	$-1.73_{-0.47}^{+0.49} \\ -1.46_{-0.41}^{+0.42}$	$0.17^{+0.09}_{-0.09}$	-0.208	$0.15^{+0.15}_{-0.08}$	$0.88^{+0.10}_{-0.41}$
	$\eta_Z^{ m SN}$	$-0.74^{+0.70}_{-0.73}$	$-0.02_{-0.13}^{+0.14} \\ 0.27_{-0.03}^{+0.03}$	-0.435 $-0.013$	$0.19_{-0.11}^{+0.24} \\ 0.08_{-0.03}^{+0.06}$	$-0.11_{-0.66}^{+0.76} \\ 0.99_{-0.04}^{+0.01}$	$-1.40_{-0.41}$	$0.14_{-0.08}^{+0.08}$ $0.19_{-0.03}^{+0.03}$	-0.048 $-0.007$	$0.13_{-0.07}^{+0.13} \\ 0.06_{-0.03}^{+0.06}$	$0.88_{-0.42}^{+0.10} \\ 0.99_{-0.05}^{+0.01}$
	$\overline{v}_{ m out} \ \overline{v}_{\mathcal{B}}$	$0.10^{+0.17}_{-0.17}$ $0.68^{+0.15}_{-0.15}$	$0.27_{-0.03}^{+0.03}$ $0.20_{-0.03}^{+0.03}$	-0.013 $-0.010$	$0.08_{-0.03}^{+0.06}$ $0.08_{-0.03}^{+0.06}$	$0.99_{-0.04}$ $0.97_{-0.07}^{+0.02}$	$1.52_{-0.15}^{+0.14} \\ 2.25_{-0.21}^{+0.23}$	$0.19_{-0.03}$ $0.13_{-0.05}^{+0.04}$	-0.007 -0.017	$0.00_{-0.03}^{+0.08}$ $0.11_{-0.04}^{+0.08}$	$0.99_{-0.05}$ $0.89_{-0.26}^{+0.08}$
	$\zeta$	$-0.03_{-0.15}^{+0.02}$ $-0.04_{-0.02}^{+0.02}$	$0.20_{-0.03}$ $0.01_{-0.00}^{+0.00}$	-0.010 $-0.000$	$0.03_{-0.03}$ $0.01_{-0.01}^{+0.01}$	$0.97_{-0.07}^{+0.08}$ $0.90_{-0.24}^{+0.08}$	$0.01^{+0.15}_{-0.13}$	$0.13_{-0.05}$ $0.04_{-0.03}^{+0.03}$	-0.017 -0.008	$0.11_{-0.04} \\ 0.07_{-0.03}^{+0.05}$	$0.69_{-0.26}^{+0.26}$ $0.66_{-0.50}^{+0.24}$
$t_{\rm dep,40}$	$\eta_M$	$-1.44^{+0.32}_{-0.29}$	$0.70^{+0.09}_{-0.10}$	-0.085	$0.16^{+0.17}_{-0.09}$	$0.99_{-0.06}^{+0.01}$	$-1.01^{+0.34}_{-0.31}$	$0.09^{+0.11}_{-0.12}$	-0.069	$0.19^{+0.17}_{-0.09}$	$0.51_{-0.68}^{+0.38}$
аср,чо	$\eta_p$	$-2.32^{+0.33}_{-0.32}$	$0.45^{+0.10}_{-0.10}$	-0.098	$0.17^{+0.18}_{-0.09}$	$0.96^{+0.03}_{-0.14}$	$-0.95^{+0.26}_{-0.25}$	$-0.03^{+0.09}_{-0.09}$	-0.040	$0.12_{-0.06}^{+0.13}$	$-0.30^{+0.81}_{-0.55}$
	$\eta_E$	$-2.61^{+0.29}_{-0.29}$	$0.19^{+0.09}_{-0.09}$	-0.048	$0.15^{+0.14}_{-0.08}$	$0.86^{+0.11}_{-0.39}$	$-0.27^{+0.30}_{-0.32}$	$-0.22^{+0.11}_{-0.10}$	-0.059	$0.14^{+0.15}_{-0.07}$	$-0.89^{+0.37}_{-0.10}$
	$\eta_Z^{\mathrm{SN}}$	$-0.87^{+0.48}_{-0.47}$	$0.02^{+0.17}_{-0.18}$	-0.550	$0.19_{-0.11}^{+0.24}$	$0.11^{+0.68}_{-0.76}$	$-0.25^{+0.26}_{-0.27}$	$-0.18^{+0.10}_{-0.09}$	-0.037	$0.12^{+0.13}_{-0.07}$	$-0.90^{+0.37}_{-0.09}$
	$\overline{v}_{ m out}$	$2.46^{+0.11}_{-0.11}$	$-0.34^{+0.03}_{-0.04}$	-0.006	$0.06^{+0.05}_{-0.03}$	$-0.99^{+0.03}_{-0.01}$	$3.22^{+0.09}_{-0.10}$	$-0.25^{+0.03}_{-0.03}$	-0.005	$0.04^{+0.05}_{-0.02}$	$-0.99^{+0.04}_{-0.01}$
	$\overline{v}_{\mathcal{B}}$	$2.44^{+0.11}_{-0.11}$	$-0.26^{+0.03}_{-0.03}$	-0.007	$0.07^{+0.05}_{-0.03}$	$-0.98^{+0.06}_{-0.01}$	$3.37^{+0.16}_{-0.18}$	$-0.17^{+0.06}_{-0.05}$	-0.017	$0.11^{+0.08}_{-0.04}$	$-0.89^{+0.25}_{-0.09}$
	ζ	$0.07^{+0.02}_{-0.02}$	$-0.02^{+0.01}_{-0.01}$	-0.000	$0.01^{+0.01}_{-0.01}$	$-0.91^{+0.23}_{-0.07}$	$0.36^{+0.11}_{-0.12}$	$-0.05^{+0.04}_{-0.04}$	-0.008	$0.07^{+0.06}_{-0.03}$	$-0.66^{+0.50}_{-0.24}$

**Table 5.2.** Fitting results for cool and hot phases at |z| = 2H

				cool					hot		
X	Y	$\alpha$	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ho	$\alpha$	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ho
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$\Sigma_{\rm SFR,40}$	$\eta_M$	$-0.48^{+0.14}_{-0.13}$	$-0.41^{+0.07}_{-0.07}$	0.012	$0.16^{+0.16}_{-0.09}$	$-0.98^{+0.06}_{-0.01}$	$-1.07^{+0.17}_{-0.15}$	$-0.06^{+0.11}_{-0.08}$	0.023	$0.21^{+0.22}_{-0.11}$	$-0.48^{+0.8}_{-0.4}$
△SFR,40	$\eta_p$	$-1.66^{+0.14}_{-0.14}$	$-0.24^{+0.07}_{-0.07}$	0.020	$0.17^{+0.18}_{-0.09}$	$-0.95^{+0.19}_{-0.05}$	$-1.32^{+0.15}_{-0.14}$	$0.01^{+0.09}_{-0.08}$	0.016	$0.18^{+0.19}_{-0.09}$	$0.14^{+0.64}_{-0.80}$
	$\eta_E$	$-2.36^{+0.14}_{-0.15}$	$-0.07^{+0.07}_{-0.08}$	0.015	$0.18^{+0.18}_{-0.09}$	$-0.61^{+0.68}_{-0.31}$	$-1.11^{+0.16}_{-0.17}$	$0.13^{+0.10}_{-0.10}$	0.023	$0.21^{+0.20}_{-0.11}$	$0.79^{+0.18}_{-0.54}$
	$\eta_Z^{ m SN}$	$-0.91^{+0.16}_{-0.16}$	$0.00^{+0.11}_{-0.11}$	0.039	$0.17^{+0.21}_{-0.09}$	$0.01^{+0.71}_{-0.74}$	$-0.95^{+0.14}_{-0.14}$	$0.11^{+0.09}_{-0.08}$	0.016	$0.18^{+0.18}_{-0.10}$	$0.79^{+0.18}_{-0.57}$
	$\overline{v}_{ m out}$	$1.93^{+0.07}_{-0.07}$	$0.23^{+0.04}_{-0.04}$	0.004	$0.11^{+0.09}_{-0.05}$	$0.98^{+0.02}_{-0.08}$	$2.62^{+0.04}_{-0.05}$	$0.15^{+0.03}_{-0.03}$	0.002	$0.06^{+0.06}_{-0.03}$	$0.99^{+0.01}_{-0.06}$
	$\overline{v}_{\mathcal{B}}$	$2.04^{+0.06}_{-0.06}$	$0.18^{+0.03}_{-0.03}$	0.002	$0.09^{+0.07}_{-0.04}$	$0.97^{+0.03}_{-0.09}$	$2.94^{+0.06}_{-0.07}$	$0.11^{+0.03}_{-0.04}$	0.003	$0.10^{+0.08}_{-0.04}$	$0.91^{+0.07}_{-0.23}$
	ζ	$0.06^{+0.01}_{-0.01}$	$0.02^{+0.01}_{-0.01}$	0.000	$0.02^{+0.01}_{-0.01}$	$0.89^{+0.08}_{-0.24}$	$0.21^{+0.03}_{-0.04}$	$0.02^{+0.02}_{-0.02}$	0.001	$0.05^{+0.04}_{-0.02}$	$0.66^{+0.25}_{-0.51}$
$\Sigma_{ m gas}$	$\eta_M$	$1.60^{+0.37}_{-0.35}$	$-1.08^{+0.24}_{-0.25}$	-0.146	$0.25^{+0.21}_{-0.11}$	$-0.96^{+0.12}_{-0.03}$	$-0.73^{+0.33}_{-0.41}$	$-0.19^{+0.28}_{-0.22}$	-0.143	$0.19^{+0.22}_{-0.11}$	$-0.59^{+0.8}_{-0.3}$
gas	$\eta_p$	$-0.47^{+0.33}_{-0.30}$	$-0.63^{+0.21}_{-0.22}$	-0.107	$0.20^{+0.20}_{-0.10}$	$-0.93^{+0.23}_{-0.06}$	$-1.36^{+0.34}_{-0.37}$	$0.01^{+0.24}_{-0.22}$	-0.121	$0.19^{+0.18}_{-0.10}$	$0.05^{+0.69}_{-0.75}$
	$\eta_E$	$-2.02^{+0.31}_{-0.30}$	$-0.18^{+0.20}_{-0.22}$	-0.105	$0.18^{+0.18}_{-0.10}$	$-0.61^{+0.67}_{-0.31}$	$-1.72^{+0.40}_{-0.44}$	$0.31^{+0.29}_{-0.26}$	-0.162	$0.23^{+0.20}_{-0.11}$	$0.72^{+0.23}_{-0.61}$
	$\eta_Z^{\mathrm{SN}}$	$-0.91^{+0.48}$	$-0.00^{+0.30}_{-0.31}$	-0.455	$0.17^{+0.22}_{-0.10}$	$-0.01^{+0.74}_{-0.72}$	$-1.49^{+0.38}$	$0.27^{+0.26}_{-0.25}$	-0.132	$0.21^{+0.19}_{-0.10}$	$0.70^{+0.24}$
	$\overline{v}_{ m out}$	$0.79^{+0.20}_{-0.20}$	$0.59_{-0.14}^{+0.14}$	-0.051	$0.17^{+0.12}_{-0.06}$	$0.94_{-0.15}^{+0.05}$	$1.86^{+0.13}_{-0.14}$	$0.40^{+0.09}_{-0.09}$	-0.027	$0.10_{-0.04}^{+0.08}$	$0.95^{+0.04}_{-0.14}$
	$\overline{v}_{\mathcal{B}}$	$1.16^{+0.16}_{-0.16}$	$0.46^{+0.11}_{-0.12}$	-0.035	$0.14_{-0.05}^{+0.10}$	$0.93^{+0.06}_{-0.17}$	$2.42_{-0.14}^{+0.15}$	$0.26^{+0.10}_{-0.11}$	-0.027	$0.12^{+0.09}_{-0.05}$	$0.86^{+0.11}_{-0.20}$
	ζ	$0.79_{-0.20}^{+0.20}$ $1.16_{-0.16}^{+0.16}$ $-0.03_{-0.03}^{+0.03}$	$0.05^{+0.02}_{-0.02}$	-0.001	$0.02^{+0.03}_{-0.01}$	$0.93^{+0.06}_{-0.17} \\ 0.84^{+0.12}_{-0.29}$	$0.08^{+0.08}_{-0.07}$	$0.06_{-0.05}^{+0.05}$	-0.008	$0.06_{-0.02}^{+0.03}$	$0.95^{+0.04}_{-0.14}$ $0.86^{+0.11}_{-0.30}$ $0.62^{+0.28}_{-0.54}$
$n_{ m mid}$	$\eta_M$	$0.46^{+0.12}$	$-0.70^{+0.12}_{-0.12}$	-0.012	$0.16^{+0.16}_{-0.09}$	$-0.08^{+0.06}$	$-0.94^{+0.14}_{-0.16}$	$-0.10^{+0.19}_{-0.14}$	-0.025	$0.21_{-0.11}^{+0.21}$	$-0.46^{+0.8}_{-0.4}$
iiid	$\eta_p$	$0.46^{+0.12}_{-0.11} \\ -1.11^{+0.11}_{-0.11} \\ +0.12$	$-0.41^{+0.11}_{-0.12}$	-0.010	$0.15^{+0.15}_{-0.08}$	$-0.96^{+0.15}$	$-1.36^{+0.13}_{-0.14}$	$0.03^{+0.15}_{-0.14}$	-0.017	$0.17^{+0.11}_{-0.10}$	$0.23^{+0.59}$
	$\eta_E$	$-2.21_{-0.12}^{+0.11}$	$-0.12^{+0.12}_{-0.13}$	-0.013	$0.17^{+0.17}_{-0.00}$	$-0.65^{+0.66}_{-0.28}$	$-1.42^{+0.15}_{-0.15}$	$0.24_{-0.17}^{+0.16}$	-0.022	$0.20^{+0.19}_{-0.10}$	$0.23^{+0.59}_{-0.85}$ $0.81^{+0.16}_{-0.52}$
	$\eta_Z^{\mathrm{SN}}$	$-0.91^{+0.17}_{-0.16}$	$-0.01^{+0.18}_{-0.19}$	-0.075	$0.17_{-0.09}^{+0.17} \\ 0.17_{-0.09}^{+0.22} \\ 0.17_{-0.10}^{+0.22}$	$-0.03^{+0.73}_{-0.71}$	$-1.22^{+0.14}_{-0.14}$	$0.21_{-0.15}^{+0.16}$	-0.018	$0.18^{+0.18}_{-0.10}$	$0.83^{+0.15}_{-0.53}$
	$\overline{v}_{ m out}$	$1.42^{+0.06}_{-0.06}$	$0.38^{+0.06}_{-0.06}$	-0.003	$0.11^{+0.08}_{-0.05}$	$-0.65^{+0.66}_{-0.28}$ $-0.03^{+0.73}_{-0.71}$ $0.98^{+0.02}_{-0.07}$	$2.27^{+0.04}_{-0.04}$	$0.26_{-0.05}^{+0.05}$	-0.002	$0.06_{-0.03}^{+0.06}$	$0.98^{+0.01}_{-0.05}$
	$\overline{v}_{\mathcal{B}}$	$1.65^{+0.04}_{-0.04}$	$0.30_{-0.05}^{+0.05}$	-0.002	$0.09^{+0.07}_{-0.04}$	$0.97^{+0.02}_{-0.08}$	$2.69_{-0.04}^{+0.05}$	$0.18^{+0.05}_{-0.05}$	-0.002	$0.09_{-0.04}^{+0.07}$	$0.93^{+0.06}_{-0.01}$
	ζ	$1.65_{-0.04}^{+0.04} \\ 0.02_{-0.01}^{+0.01}$	$0.03_{-0.01}^{+0.01}$	-0.000	$0.09_{-0.04}^{+0.07} \\ 0.02_{-0.01}^{+0.01}$	$0.90^{+0.08}_{-0.22}$	$0.15^{+0.03}_{-0.02}$	$0.04_{-0.03}^{+0.03}$	-0.001	$0.05^{+0.04}_{-0.02}$	$0.98^{+0.01}_{-0.07}$ $0.93^{+0.06}_{-0.21}$ $0.69^{+0.23}_{-0.52}$
$P_{\rm mid}/k_B$	$\eta_M$	$2.49^{+0.44}$	$-0.47^{+0.08}_{-0.08}$	-0.055	$0.15^{+0.15}_{-0.08}$	$-0.98^{+0.06}_{-0.01}$	$-0.67^{+0.54}_{-0.64}$	$-0.06^{+0.12}_{-0.10}$	-0.107	$0.22^{+0.23}_{-0.11}$	$-0.43^{+0.7}_{-0.4}$
a, –	$\eta_p$	$2.49_{-0.41}^{+0.44} \\ 0.07_{-0.43}^{+0.45}$	$-0.27^{+0.08}_{-0.09}$	-0.062	$0.17^{+0.17}_{-0.09}$	$-0.94^{+0.18}_{-0.05}$	$-1.44^{+0.50}_{-0.52}$	$0.02^{+0.10}_{-0.09}$	-0.075	$0.18^{+0.11}_{-0.10}$	$0.19^{+0.59}_{-0.82}$
	$\eta_E$	$-1.89^{+0.47}_{-0.42}$	$-0.08^{+0.08}_{-0.09}$	-0.067	$0.17^{+0.17}_{-0.09}$	$-0.63^{+0.66}_{-0.30}$	$-2.08^{+0.59}_{-0.61}$	$0.15_{-0.11}^{+0.11}$	-0.128	$0.21_{-0.11}^{+0.21}$	$0.80^{+0.17}_{-0.54}$
	$\eta_Z^{ m SN}$	$-0.89^{+0.66}_{-0.65}$	$-0.00^{+0.12}_{-0.12}$	-0.244	$0.17^{+0.23}_{-0.09}$	$-0.04_{-0.69}^{+0.75}$	$-1.80^{+0.51}_{-0.53}$	$0.14_{-0.10}^{+0.11}$	-0.470	$0.18_{-0.09}^{+0.11}$	$0.81^{+0.16}_{-0.51}$
	$\overline{v}_{ m out}$	$0.28^{+0.18}_{-0.18}$	$0.26^{+0.04}_{-0.04}$	-0.012	$0.08^{+0.07}_{-0.04}$	$0.99_{-0.05}^{+0.01}$	$1.51_{-0.15}^{+0.14}$	$0.18^{+0.03}_{-0.03}$	-0.007	$0.05_{-0.03}^{+0.05}$	$0.99^{+0.01}_{-0.05}$
	$\overline{v}_{\mathcal{B}}$	$0.77^{+0.13}_{-0.13}$	$0.20^{+0.03}_{-0.03}$	-0.007	$0.07^{+0.06}_{-0.03}$	$0.98^{+0.01}_{-0.06}$	$2.15_{-0.16}^{+0.18}$	$0.13^{+0.03}_{-0.04}$	-0.012	$0.08^{+0.07}_{-0.04}$	$0.94^{+0.05}_{-0.17}$
	ζ	$-0.07^{+0.03}_{-0.03}$	$0.02^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.92^{+0.06}_{-0.18}$	$0.02^{+0.11}_{-0.09}$	$0.03^{+0.02}_{-0.02}$	-0.004	$0.05^{+0.04}_{-0.02}$	$0.70^{+0.23}_{-0.50}$
$W/k_B$	$\eta_M$	$2.57^{+0.42}_{-0.41}$	$-0.50^{+0.08}_{-0.08}$	-0.055	$0.15^{+0.16}_{-0.08}$	$-0.99^{+0.06}_{-0.01}$	$-0.65^{+0.53}_{-0.67}$	$-0.07^{+0.13}_{-0.10}$	-0.147	$0.22^{+0.22}_{-0.11}$	$-0.44^{+0.7}$
	$\eta_p$	$0.09^{+0.48}_{-0.42}$	$-0.28^{+0.08}_{-0.09}$	-0.068	$0.17^{+0.17}_{-0.09}$	$-0.95^{+0.18}_{-0.04}$	$-1.45^{+0.53}_{-0.57}$	$0.02^{+0.11}_{-0.10}$	-0.086	$0.18^{+0.19}_{-0.10}$	$0.19^{+0.60}_{-0.84}$
	$\eta_E$	$-1.87^{+0.47}_{-0.44}$	$-0.08^{+0.09}_{-0.09}$	-0.067	$0.17^{+0.16}_{-0.09}$	$-0.64^{+0.69}_{-0.29}$	$-2.11^{+0.62}_{-0.65}$	$0.16^{+0.12}_{-0.12}$	-0.109	$0.21^{+0.20}_{-0.11}$	$0.80^{+0.17}_{-0.52}$
	$\eta_Z^{\mathrm{SN}}$	$-0.88^{+0.66}_{-0.66}$	$-0.01^{+0.12}_{-0.12}$	-0.317	$0.17^{+0.21}_{-0.10}$	$-0.05^{+0.77}_{-0.71}$	$-1.83^{+0.55}_{-0.57}$	$0.14^{+0.11}_{-0.11}$	-0.091	$0.18^{+0.18}_{-0.10}$	$0.80^{+0.16}_{-0.55}$
	$\overline{v}_{ m out}$	$0.22^{+0.19}_{-0.18}$	$0.28^{+0.04}_{-0.04}$	-0.012	$0.08^{+0.07}_{-0.04}$	$0.99^{+0.01}_{-0.05}$	$1.49^{+0.15}_{-0.14}$	$0.18^{+0.03}_{-0.03}$	-0.007	$0.05^{+0.05}_{-0.03}$	$0.99^{+0.01}_{-0.04}$
	$\overline{v}_{\mathcal{B}}$	$0.73^{+0.15}_{-0.14}$	$0.21^{+0.03}_{-0.03}$	-0.009	$0.08^{+0.06}_{-0.03}$	$0.98^{+0.02}_{-0.06}$	$2.14^{+0.19}_{-0.17}$	$0.13^{+0.03}_{-0.04}$	-0.015	$0.08^{+0.07}_{-0.04}$	$0.93^{+0.05}_{-0.19}$
	ζ	$-0.07^{+0.03}_{-0.03}$	$0.02^{+0.01}_{-0.01}$	-0.001	$0.02^{+0.01}_{-0.01}$	$0.92^{+0.06}_{-0.19}$	$0.02^{+0.11}_{-0.10}$	$0.03^{+0.02}_{-0.02}$	-0.005	$0.05^{+0.04}_{-0.02}$	$0.69^{+0.23}_{-0.52}$
$t_{ m dep,40}$	$\eta_M$	$-1.78^{+0.29}_{-0.29}$	$0.66^{+0.09}_{-0.09}$	-0.055	$0.14^{+0.14}_{-0.08}$	$0.99^{+0.01}_{-0.05}$	$-1.14^{+0.47}_{-0.41}$	$0.05^{+0.14}_{-0.16}$	-0.131	$0.25^{+0.22}_{-0.12}$	$0.23^{+0.56}_{-0.69}$
• / -	$\eta_p$	$-2.42^{+0.30}_{-0.32}$	$0.39_{-0.10}^{+0.10}$	-0.059	$0.16^{+0.15}_{-0.08}$	$0.96^{+0.04}_{-0.15}$	$-1.20_{-0.37}^{+0.38}$	$-0.05^{+0.13}_{-0.13}$	-0.093	$0.19_{-0.10}^{+0.12}$	$-0.34^{+0.7}_{-0.5}$
	$\eta_E$	$-2.60_{-0.33}^{+0.32}$	$0.12_{-0.11}^{+0.11}$	-0.058	$0.17^{+0.17}_{-0.09}$	$0.67^{+0.26}_{-0.60}$	$-0.64_{-0.40}^{+0.41}$	$-0.23^{+0.14}_{-0.15}$	-0.096	$0.20_{-0.11}^{+0.20}$	$-0.84^{+0.4}_{-0.1}$
	$\eta_Z^{ m SN}$	$-0.93^{+0.43}_{-0.43}$	$0.01_{-0.16}^{+0.16}$	-0.433	$0.17^{+0.22}_{-0.09}$	$0.04^{+0.71}_{-0.74}$	$-0.52^{+0.36}_{-0.36}$	$-0.21^{+0.12}_{-0.13}$	-0.073	$0.17^{+0.17}_{-0.09}$	$-0.85^{+0.4}_{-0.1}$
	$\overline{v}_{ m out}$	$2.61_{-0.13}^{+0.12}$	$-0.35^{+0.04}_{-0.04}$	-0.011	$0.07^{+0.07}_{-0.04}$	$-0.99^{+0.04}_{-0.01}$	$3.10^{+0.11}_{-0.11}$	$-0.24^{+0.04}_{-0.04}$	-0.006	$0.05_{-0.03}^{+0.05}$	$-0.99_{-0.0}^{+0.0}$
	$\overline{v}_{\mathcal{B}}$	$2.58^{+0.11}_{-0.11}$	$-0.27^{+0.03}_{-0.03}$	-0.007	$0.07^{+0.04}_{-0.03}$	$-0.98^{+0.05}_{-0.01}$	$3.28^{+0.12}_{-0.14}$	$-0.17^{+0.05}_{-0.04}$	-0.010	$0.08^{+0.07}_{-0.04}$	$-0.95^{+0.1}_{-0.0}$
		$0.12^{+0.03}_{-0.02}$	$-0.03^{+0.01}_{-0.01}$		$0.02^{+0.01}_{-0.01}$	$-0.93^{+0.16}_{-0.05}$	$0.29_{-0.08}^{+0.08}$	$-0.04^{+0.03}_{-0.03}$		$0.05^{+0.04}_{-0.02}$	$-0.72^{+0.4}_{-0.2}$

Table 5.3. Fitting results for cool and hot phases at  $|z|=500\,\mathrm{pc}$ 

				cool	·				hot		
X	Y	$\alpha$	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ρ	$\alpha$	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ρ
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$\Sigma_{\mathrm{SFR,40}}$	$\eta_M$	$-0.38^{+0.19}_{-0.17}$	$-0.51^{+0.09}_{-0.09}$	0.024	$0.26^{+0.22}_{-0.12}$	$-0.97^{+0.09}_{-0.02}$	$-1.00^{+0.11}_{-0.11}$	$-0.14^{+0.06}_{-0.06}$	0.011	$0.14^{+0.14}_{-0.08}$	$-0.91^{+0.30}_{-0.0}$
—5F €,40	$\eta_p$	$-1.61^{+0.18}$	$-0.33^{+0.09}_{-0.09}$	0.022	$0.25^{+0.12}_{-0.11}$	$-0.94^{+0.17}_{-0.05}$	$-1.19^{+0.13}_{-0.13}$	$-0.08^{+0.07}_{-0.08}$	0.012	$0.17^{+0.16}_{-0.09}$	$-0.71^{+0.6}_{-0.2}$
	$\eta_E$	$-2.35^{+0.15}_{-0.17}$	$-0.15^{+0.08}_{-0.08}$	0.019	$0.21^{+0.19}_{-0.10}$	$-0.82^{+0.39}_{-0.14}$	$-0.92^{+0.16}_{-0.17}$	$0.03^{+0.08}_{-0.09}$	0.019	$0.21^{+0.20}_{-0.10}$	$0.28^{+0.56}_{-0.76}$
	$\eta_Z^{ m SN}$	$-0.89^{+0.15}_{-0.16}$	$-0.00^{+0.12}_{-0.11}$	0.048	$0.18^{+0.24}_{-0.10}$	$-0.04^{+0.74}_{-0.72}$	$-0.81^{+0.14}_{-0.15}$	$0.02^{+0.09}_{-0.09}$	0.017	$0.19_{-0.10}^{+0.19}$	$0.23^{+0.61}_{-0.76}$
	$\overline{v}_{ m out}$	$1.91^{+0.07}_{-0.07}$	$0.26^{+0.04}_{-0.04}$	0.004	$0.11^{+0.09}_{-0.04}$	$0.98^{+0.02}_{-0.06}$	$2.68^{+0.04}_{-0.04}$	$0.15^{+0.02}_{-0.02}$	0.001	$0.05^{+0.05}_{-0.03}$	$0.98^{+0.01}_{-0.06}$
	$\overline{v}_{\mathcal{B}}$	$2.02^{+0.07}_{-0.07}$	$0.19^{+0.03}_{-0.03}$	0.003	$0.10^{+0.08}_{-0.04}$	$0.96^{+0.03}_{-0.09}$	$2.98^{+0.07}_{-0.07}$	$0.08^{+0.04}_{-0.04}$	0.003	$0.11^{+0.08}_{-0.04}$	$0.83^{+0.13}_{-0.37}$
	ζ	$0.06^{+0.01}_{-0.01}$	$0.02^{+0.01}_{-0.01}$	0.000	$0.02^{+0.01}_{-0.01}$	$0.87^{+0.09}_{-0.26}$	$0.23^{+0.04}_{-0.04}$	$0.02^{+0.02}_{-0.02}$	0.002	$0.06^{+0.05}_{-0.02}$	$0.60^{+0.29}_{-0.54}$
$\Sigma_{ m gas}$	$\eta_M$	$2.21^{+0.46}_{-0.46}$	$-1.35^{+0.33}_{-0.33}$	-0.266	$0.38^{+0.28}_{-0.15}$	$-0.94^{+0.16}_{-0.05}$	$-0.24^{+0.26}_{-0.25}$	$-0.40^{+0.17}_{-0.17}$	-0.086	$0.14^{+0.13}_{-0.07}$	$-0.91^{+0.2}_{-0.0}$
-gas	$\eta_p$	$0.04^{+0.38}$	$-0.86^{+0.27}_{-0.26}$	-0.161	$0.29^{+0.22}_{-0.12}$	$-0.92^{+0.21}_{-0.06}$	$-0.79^{+0.30}_{-0.27}$	$-0.22^{+0.18}_{-0.20}$	-0.084	$0.16^{+0.15}_{-0.08}$	$-0.73^{+0.5}_{-0.2}$
	$\eta_E$	$0.04^{+0.38}_{-0.37}$ $-1.61^{+0.32}_{-0.31}$	$-0.39^{+0.22}_{-0.22}$	-0.120	$0.22^{+0.19}_{-0.10}$	$-0.81^{+0.42}_{-0.15}$	$-1.04^{+0.38}_{-0.33}$	$0.06^{+0.22}_{-0.26}$	-0.155	$0.21^{+0.19}_{-0.11}$	$0.22^{+0.61}_{-0.75}$
	$\eta_Z^{ m SN}$	$-0.83^{+0.45}_{-0.48}$	$-0.03^{+0.31}_{-0.29}$	-0.437	$0.18^{+0.23}_{-0.10}$	$-0.10^{+0.75}_{-0.67}$	$-0.90^{+0.35}_{-0.30}$	$0.05^{+0.20}_{-0.24}$	-0.114	$0.19^{+0.18}_{-0.10}$	$0.19^{+0.62}$
	$\overline{v}_{ m out}$	$0.63^{+0.21}_{-0.48}$	$0.67^{+0.15}_{-0.15}$	-0.060	$0.18^{+0.14}_{-0.07}$	$0.94^{+0.05}_{-0.15}$	$1.95^{+0.13}_{-0.12}$	$0.38^{+0.08}_{-0.09}$	-0.018	$0.09^{+0.07}_{-0.04}$	$0.19 ^{+0.62}_{-0.76} \\ 0.19 ^{+0.62}_{-0.76} \\ 0.95 ^{+0.04}_{-0.13} \\ 0.80 ^{+0.13}_{-0.38} \\ 0.56 ^{+0.30}_{-0.55}$
	$\overline{v}_{\mathcal{B}}$	$1.09^{+0.17}$	$0.48^{+0.12}_{-0.12}$	-0.057	$0.15^{+0.11}_{-0.05}$	$0.92^{+0.06}$	$2.58^{+0.15}$	$0.21^{+0.10}_{-0.11}$	-0.071	$0.12^{+0.08}_{-0.04}$	$0.80^{+0.13}$
	ζ	$0.63_{-0.22}^{+0.21}$ $1.09_{-0.18}^{+0.02}$ $-0.03_{-0.03}^{+0.02}$	$0.16_{-0.12}^{+0.12}$ $0.04_{-0.02}^{+0.02}$	-0.001	$0.02^{+0.05}_{-0.01}$	$0.92^{+0.06}_{-0.17} \\ 0.83^{+0.12}_{-0.32}$	$2.58_{-0.15}^{+0.15} \\ 0.11_{-0.08}^{+0.02}$	$0.06^{+0.06}_{-0.06}$	-0.008	$0.07_{-0.02}^{+0.04}$	$0.56^{+0.38}$
n · 1		$0.79^{+0.13}$	$-0.87^{+0.14}_{-0.15}$	-0.020	$0.23^{+0.21}_{-0.11}$	$0.08^{+0.08}$	$-0.65^{+0.10}$	$-0.26^{+0.10}_{-0.11}$	-0.009	$0.07_{-0.02}$ $0.12^{+0.13}$	$-0.93^{+0.2}_{-0.0}$
$n_{ m mid}$	$\eta_M$	$0.79_{-0.13}^{+0.13} \\ -0.86_{-0.12}^{+0.12}$	$-0.57_{-0.15}^{+0.15}$ $-0.56_{-0.13}^{+0.13}$	-0.020 $-0.013$	$0.20_{-0.11}$	$-0.98_{-0.02}$ $-0.96_{+0.13}$	$-0.65^{+0.10}_{-0.09} \\ -1.01^{+0.12}_{-0.10}$	$-0.25^{+0.11}_{-0.13}$	-0.003 $-0.013$	$0.12^{+0.13}_{-0.07}$ $0.16^{+0.15}_{-0.08}$	$-0.93_{-0.0}$ $-0.76_{-0.2}^{+0.5}$
	$\eta_p$	$-2.01^{+0.12}_{-0.11}$	$-0.25^{+0.13}_{-0.13}$	-0.015	$0.20_{-0.10}^{+0.19} \\ 0.19_{-0.10}^{+0.18} \\ 0.19_{-0.10}^{+0.25} \\ 0.19_{-0.11}^{+0.25}$	$-0.85^{+0.36}_{-0.03}$	$-0.98^{+0.15}_{-0.13}$	$0.04^{+0.15}_{-0.16}$	-0.021	$0.10_{-0.08}^{+0.20}$ $0.21_{-0.11}^{+0.20}$	$0.21^{+0.62}_{-0.76}$
	$\eta_E \ \eta_Z^{ m SN}$	$-0.88^{+0.18}_{-0.19}$	$-0.23_{-0.13}^{+0.21}$ $-0.01_{-0.20}^{+0.21}$	-0.019 $-0.179$	$0.19_{-0.10}$	$-0.05_{-0.13}$	$-0.85^{+0.13}_{-0.12}$	$0.04_{-0.16}^{+0.16}$ $0.02_{-0.15}^{+0.13}$	-0.021 $-0.016$	$0.19_{-0.10}^{+0.18}$	$0.21_{-0.76}$
	$\overline{v}_{ m out}$	$0.00_{-0.19}^{-0.19}$	$0.43^{+0.07}_{-0.07}$	-0.173 $-0.004$	$0.13_{-0.11}$	$0.03_{-0.70}^{+0.02}$	$2.34^{+0.04}_{-0.04}$	$0.02_{-0.15}^{+0.04}$ $0.25_{-0.04}^{+0.04}$	-0.010 $-0.002$	$0.13_{-0.10}$ $0.06_{-0.03}^{+0.05}$	$0.15_{-0.74}^{+0.64}$ $0.98_{-0.07}^{+0.01}$
	$\overline{v}_{\mathcal{B}}$	$1.60^{+0.06}$	$0.43_{-0.07}^{+0.07}$ $0.31_{-0.06}^{+0.06}$	-0.004 $-0.002$	$0.12_{-0.05}$	$0.97_{-0.08}$	$2.80^{+0.04}_{-0.05}$	$0.14^{+0.06}_{-0.06}$	-0.002 $-0.005$	$0.00_{-0.03}^{+0.08}$ $0.11_{-0.04}^{+0.08}$	$0.90_{-0.07}$
	ζ	$1.34_{-0.06}^{+0.06}$ $1.60_{-0.05}^{+0.01}$ $0.02_{-0.01}^{+0.01}$	$0.03^{+0.06}_{-0.01}$	-0.002 $-0.000$	$0.12_{-0.05}^{+0.10}$ $0.11_{-0.04}^{+0.08}$ $0.11_{-0.04}^{+0.01}$ $0.02_{-0.01}^{+0.01}$	$\begin{array}{c} -0.38 - 0.02 \\ -0.96 - 0.13 \\ -0.03 \\ -0.03 \\ -0.03 \\ -0.13 \\ -0.05 - 0.70 \\ 0.97 + 0.02 \\ 0.96 + 0.03 \\ 0.96 + 0.03 \\ 0.96 + 0.03 \\ -0.10 \\ 0.89 + 0.08 \\ -0.24 \\ \end{array}$	$0.17^{+0.03}_{-0.03}$	$0.14_{-0.06}^{+0.06}$ $0.04_{-0.04}^{+0.03}$	-0.003 $-0.001$	$0.06^{+0.05}_{-0.02}$	$0.84_{-0.35}^{+0.13}$ $0.62_{-0.55}^{+0.28}$
D /h-		$3.34^{+0.51}_{-0.47}$	$-0.59^{+0.09}_{-0.10}$		$0.02_{-0.01} \\ 0.24_{-0.11}^{+0.21}$	$\begin{array}{r} -0.89_{-0.24} \\ -0.98_{-0.02}^{+0.08} \end{array}$	$0.17_{-0.03} \\ 0.05_{-0.40}^{+0.39}$	$-0.17^{+0.08}_{-0.07}$	-0.001 $-0.043$	$0.14_{-0.07}^{+0.13}$	$-0.02_{-0.55}$ $-0.91_{-0.0}^{+0.3}$
$P_{ m mid}/k_B$	$\eta_M$	$0.78^{+0.50}_{-0.49}$	$-0.39_{-0.10}$	-0.085 $-0.091$	$0.24_{-0.11}$	$-0.98_{-0.02}$	$0.03_{-0.40}$	$-0.17_{-0.07}$ $-0.09_{-0.09}^{+0.08}$		$0.14_{-0.07}$	$-0.91_{-0.0}$ $-0.70_{-0.2}^{+0.6}$
	$\eta_p$	$0.78_{-0.49}$	$-0.38^{+0.10}_{-0.10}$		$0.24^{+0.21}_{-0.11}$	$-0.95^{+0.16}_{-0.04}$	$-0.62^{+0.47}_{-0.44}$	$-0.09_{-0.09}$	-0.080	$0.17^{+0.16}_{-0.09}$	$-0.70_{-0.2}$
	$\eta_E$ "SN	$-1.30^{+0.49}_{-0.46}$	$-0.17^{+0.09}_{-0.10}$	-0.072	$0.21^{+0.19}_{-0.10}$	$-0.82^{+0.41}_{-0.14}$	$-1.14_{-0.51}^{+0.57} \\ -0.97_{-0.45}^{+0.49}$	$0.04^{+0.10}_{-0.11}$	-0.083	$0.21^{+0.19}_{-0.11}$	$0.29^{+0.56}_{-0.76}$
	$\eta_Z^{\mathrm{SN}}$	$-0.89^{+0.65}_{-0.72}$	$0.00^{+0.13}_{-0.12}$	-0.236	$0.18^{+0.24}_{-0.10}$	$0.02^{+0.73}_{-0.77}$	$-0.97_{-0.45}$	$0.03^{+0.09}_{-0.09}$	-0.067	$0.19_{-0.10}^{+0.17}$	$0.25^{+0.57}_{-0.75}$
	$\overline{v}_{\mathrm{out}}$	$0.05^{+0.15}_{-0.16}$	$0.30_{-0.03}^{+0.03} \\ 0.21_{-0.03}^{+0.03}$	-0.008	$0.07^{+0.06}_{-0.03}$	$0.99^{+0.01}_{-0.03}$	$1.62^{+0.13}_{-0.13}$	$0.17_{-0.02}^{+0.02} \\ 0.10_{-0.04}^{+0.04}$	-0.006	$0.04_{-0.02}^{+0.04} \\ 0.10_{-0.04}^{+0.08}$	$0.99^{+0.01}_{-0.04}$
	$\overline{v}_{\mathcal{B}}$	$0.67^{+0.13}_{-0.13}$	$0.21_{-0.03}$	-0.007	$0.07^{+0.06}_{-0.03}$	$0.98^{+0.01}_{-0.05}$	$2.38^{+0.22}_{-0.19}$	$0.10_{-0.04}$	-0.015	$0.10^{+}_{-0.04}$	$0.85^{+0.11}_{-0.33}$
342/1	ζ	$-0.06^{+0.03}_{-0.03}$	$0.02^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.91^{+0.07}_{-0.21}$	$0.04^{+0.12}_{-0.11}$	$0.03^{+0.02}_{-0.02}$	$\frac{-0.005}{0.054}$	$0.06^{+0.04}_{-0.02}$	$0.66^{+0.25}_{-0.53}$
$W/k_B$	$\eta_M$	$3.43^{+0.50}_{-0.47}$ $0.83^{+0.50}_{-0.49}$	$-0.62^{+0.09}_{-0.10}$	-0.081	$0.23^{+0.19}_{-0.11}$	$-0.98^{+0.07}_{-0.02}$	$0.08^{+0.42}_{-0.41}$	$-0.17^{+0.08}_{-0.08}$	-0.054	$0.14^{+0.14}_{-0.07}$	$-0.91^{+0.2}_{-0.0}$
	$\eta_p$	$0.83_{-0.49}^{+0.51}$	$-0.40^{+0.10}_{-0.10}$	-0.094	$0.23^{+0.19}_{-0.10}$	$-0.95^{+0.14}_{-0.04}$	$-0.62^{+0.48}_{-0.41}$	$-0.09^{+0.08}_{-0.09}$	-0.061	$0.16^{+0.15}_{-0.08}$	$-0.71^{+0.5}_{-0.2}$
	$\eta_E$	$-1.26^{+0.51}_{-0.48}$	$-0.18^{+0.09}_{-0.10}$	-0.090	$0.22^{+0.19}_{-0.10}$	$-0.82^{+0.39}_{-0.14}$	$-1.14^{+0.58}_{-0.50}$	$0.04^{+0.10}_{-0.11}$	-0.087	$0.20^{+0.19}_{-0.10}$	$0.29^{+0.56}_{-0.76}$
	$\eta_Z^{ ext{SN}}$	$-0.87^{+0.68}_{-0.71}$	$-0.00^{+0.14}_{-0.13}$	-0.301	$0.18^{+0.22}_{-0.10}$	$-0.01^{+0.72}_{-0.71}$	$-0.99^{+0.51}_{-0.46}$	$0.03^{+0.09}_{-0.10}$	-0.082	$0.18^{+0.19}_{-0.09}$	$0.27^{+0.58}_{-0.76}$
	$v_{\text{out}}$	$0.01^{+0.16}_{-0.17}$	$0.31^{+0.03}_{-0.03}$	-0.015	$0.08^{+0.06}_{-0.04}$	$0.99^{+0.01}_{-0.03}$	$1.59^{+0.13}_{-0.13}$	$0.18^{+0.02}_{-0.02}$	-0.004	$0.04^{+0.04}_{-0.02}$	$0.99^{+0.01}_{-0.04}$
	$\overline{v}_{\mathcal{B}}$	$0.64^{+0.14}_{-0.15}$	$0.23^{+0.03}_{-0.03}$	-0.008	$0.07^{+0.06}_{-0.03}$	$0.98^{+0.01}_{-0.05}$	$2.37^{+0.22}_{-0.19}$	$0.10^{+0.04}_{-0.04}$	-0.014	$0.10^{+0.08}_{-0.04}$	$0.86^{+0.11}_{-0.32}$
1	ζ	$-0.07^{+0.03}_{-0.03}$	$0.02^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.91^{+0.07}_{-0.20}$	$0.04_{-0.12}^{+0.13}$	$0.03^{+0.02}_{-0.03}$	$\frac{-0.007}{0.042}$	$0.06^{+0.05}_{-0.02}$	$0.63^{+0.27}_{-0.55}$
$t_{ m dep,40}$	$\eta_M$	$-2.00^{+0.35}_{-0.37}$	$0.82^{+0.12}_{-0.11}$	-0.081	$0.21^{+0.19}_{-0.10}$	$0.98^{+0.01}_{-0.06}$	$-1.43^{+0.28}_{-0.28}$	$0.22^{+0.10}_{-0.09}$	-0.043	$0.14^{+0.14}_{-0.07}$	$0.91^{+0.08}_{-0.29}$
	$\eta_p$	$-2.67^{+0.38}_{-0.39}$	$0.53^{+0.12}_{-0.13}$	-0.192	$0.23^{+0.20}_{-0.10}$	$0.95^{+0.04}_{-0.14}$	$-1.45^{+0.30}_{-0.34}$	$0.13^{+0.12}_{-0.10}$	-0.053	$0.16^{+0.15}_{-0.08}$	$0.72^{+0.22}_{-0.54}$
	$\eta_E$	$-2.83^{+0.36}_{-0.39}$	$0.24^{+0.12}_{-0.12}$	-0.087	$0.22^{+0.19}_{-0.10}$	$0.83^{+0.13}_{-0.37}$	$-0.84^{+0.38}_{-0.42}$	$-0.04^{+0.14}_{-0.13}$	-0.087	$0.21^{+0.19}_{-0.10}$	$-0.23^{+0.7}_{-0.5}$
	$\eta_Z^{\mathrm{SN}}$	$-0.90^{+0.51}_{-0.45}$	$0.01^{+0.16}_{-0.19}$	-1.676	$0.19^{+0.25}_{-0.11}$	$0.05^{+0.71}_{-0.74}$	$-0.76^{+0.34}_{-0.39}$	$-0.02^{+0.13}_{-0.11}$	-0.096	$0.19^{+0.18}_{-0.10}$	$-0.16^{+0.7}_{-0.6}$
	$\overline{v}_{\mathrm{out}}$	$2.69^{+0.11}_{-0.10}$	$-0.39^{+0.03}_{-0.04}$	-0.007	$0.06^{+0.06}_{-0.03}$	$-0.99^{+0.02}_{-0.00}$	$3.10^{+0.09}_{-0.10}$	$-0.22^{+0.03}_{-0.03}$	-0.006	$0.05^{+0.05}_{-0.02}$	$-0.99^{+0.0}_{-0.0}$
	$\overline{v}_{\mathcal{B}}$	$2.61^{+0.09}_{-0.09}$	$-0.29^{+0.03}_{-0.03}$	-0.005	$0.05^{+0.05}_{-0.03}$	$-0.99^{+0.03}_{-0.01}$	$3.22^{+0.16}_{-0.19}$	$-0.12^{+0.06}_{-0.05}$	-0.024	$0.11^{+0.09}_{-0.04}$	$-0.81^{+0.3}_{-0.1}$
	ζ	$0.11^{+0.02}_{-0.02}$	$-0.03^{+0.01}_{-0.01}$	-0.001	$0.01^{+0.01}_{-0.01}$	$-0.93^{+0.18}_{-0.06}$	$0.30^{+0.10}_{-0.11}$	$-0.04^{+0.04}_{-0.03}$	-0.007	$0.07^{+0.05}_{-0.03}$	$-0.57^{+0.5}_{-0.3}$

Table 5.4. Fitting results for cool and hot phases at  $|z|=1\,\mathrm{kpc}$ 

				cool					hot		
X	Y	α	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ρ	α	β	$Cov(\alpha, \beta)$	$\sigma_{ m int}$	ρ
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$\Sigma_{ m SFR,40}$	$\eta_M$	$-0.74^{+0.25}_{-0.26}$	$-0.51^{+0.13}_{-0.13}$	0.043	$0.39^{+0.28}_{-0.15}$	$-0.94^{+0.15}_{-0.04}$	$-1.21^{+0.14}_{-0.12}$	$-0.13^{+0.08}_{-0.07}$	0.013	$0.15^{+0.16}_{-0.08}$	$-0.86^{+0.48}_{-0.12}$
△5FR,40	$\eta_p$	$-1.84^{+0.24}_{-0.24}$	$-0.31^{+0.11}_{-0.12}$	0.037	$0.35^{+0.15}_{-0.15}$	$-0.88^{+0.27}_{-0.09}$	$-1.53^{+0.13}_{-0.13}$	$-0.08^{+0.08}_{-0.08}$	0.011	$0.15^{+0.14}_{-0.08}$	$-0.72^{+0.69}_{-0.24}$
	$\eta_E$	$-2.53^{+0.23}_{-0.23}$	$-0.13^{+0.11}_{-0.12}$	0.052	$0.33^{+0.26}_{-0.14}$	$-0.63^{+0.54}_{-0.27}$	$-1.37^{+0.17}_{-0.18}$	$0.03^{+0.10}_{-0.10}$	0.023	$0.20^{+0.20}_{-0.11}$	$0.25^{+0.60}_{-0.84}$
	$\eta_Z^{ m SN}$	$-1.03^{+0.19}_{-0.18}$	$0.03^{+0.13}_{-0.13}$	0.069	$0.20^{+0.27}_{-0.12}$	$0.20^{+0.63}_{-0.81}$	$-1.16^{+0.14}_{-0.14}$	$0.03^{+0.08}_{-0.09}$	0.014	$0.17^{+0.17}_{-0.09}$	$0.35^{+0.54}_{-0.85}$
	$\overline{v}_{ m out}$	$2.03^{+0.08}_{-0.08}$	$0.25^{+0.04}_{-0.04}$	0.004	$0.10^{+0.09}_{-0.05}$	$0.98^{+0.02}_{-0.07}$	$2.56^{+0.05}_{-0.05}$	$0.13^{+0.03}_{-0.03}$	0.002	$0.06^{+0.06}_{-0.03}$	$0.98^{+0.02}_{-0.09}$
	$\overline{v}_{\mathcal{B}}$	$2.11^{+0.05}_{-0.06}$	$0.19^{+0.03}_{-0.03}$	0.003	$0.08^{+0.07}_{-0.04}$	$0.98^{+0.02}_{-0.07}$	$2.84^{+0.07}_{-0.07}$	$0.07^{+0.03}_{-0.04}$	0.004	$0.10^{+0.08}_{-0.04}$	$0.79^{+0.16}_{-0.40}$
	ζ	$0.08^{+0.01}_{-0.01}$	$0.02^{+0.01}_{-0.01}$	0.000	$0.02^{+0.01}_{-0.01}$	$0.91^{+0.07}_{-0.20}$	$0.18^{+0.03}_{-0.03}$	$0.02^{+0.02}_{-0.02}$	0.001	$0.05^{+0.04}_{-0.02}$	$0.53^{+0.33}_{-0.60}$
$\Sigma_{ m gas}$	$\eta_M$	$\begin{array}{c} -0.01 \\ 1.87^{+0.57}_{-0.55} \\ -0.23^{+0.48}_{-0.47} \\ -1.87^{+0.44}_{-0.42} \\ \end{array}$	$-1.36^{+0.41}_{-0.41}$	-0.423	$0.47^{+0.36}_{-0.18}$	$-0.91^{+0.21}_{-0.07}$	$-0.54^{+0.27}_{-0.29}$	$-0.36^{+0.20}_{-0.18}$	-0.074	$0.14^{+0.15}_{-0.08}$	$-0.89^{+0.43}_{-0.10}$
	$\eta_p$	$-0.23^{+0.48}_{-0.47}$	$-0.84^{+0.33}_{-0.34}$	-0.257	$0.39^{+0.29}_{-0.15}$	$-0.86^{+0.29}_{-0.11}$	$-1.12^{+0.32}_{-0.29}$	$-0.22^{+0.20}_{-0.22}$	-0.093	$0.14^{+0.14}_{-0.08}$	$-0.76^{+0.69}_{-0.21}$
	$\eta_E$	$-1.87^{+0.44}_{-0.42}$	$-0.34^{+0.30}_{-0.30}$	-0.241	$0.34^{+0.27}_{-0.14}$	$-0.61^{+0.54}_{-0.28}$	$-1.46^{+0.40}_{-0.41}$	$0.04^{+0.27}_{-0.27}$	-0.165	$0.21^{+0.19}_{-0.11}$	$0.13^{+0.67}_{-0.79}$
	$\eta_Z^{\mathrm{SN}}$	$-1.16^{+0.50}$	$0.07^{+0.33}_{-0.36}$	-0.716	$0.21^{+0.27}_{-0.12}$	$0.20^{+0.60}_{-0.79}$	$-1.29^{+0.35}_{-0.34}$	$0.07^{+0.22}_{-0.23}$	-0.101	$0.18^{+0.17}_{-0.09}$	$0.26^{+0.58}_{-0.82}$
	$\overline{v}_{ m out}$	$0.78^{+0.21}_{-0.21}$	$0.65^{+0.14}_{-0.15}$	-0.065	$0.17^{+0.13}_{-0.06}$	$0.95^{+0.04}_{-0.13}$	$1.89^{+0.11}_{-0.11}$	$0.35^{+0.08}_{-0.08}$	-0.018	$0.08^{+0.07}_{-0.04}$	$0.96^{+0.03}_{-0.13}$
	$\overline{v}_{\mathcal{B}}$	$0.78_{-0.21}^{+0.21}$ $1.14_{-0.16}^{+0.03}$ $-0.03_{-0.03}^{+0.03}$	$0.50^{+0.11}_{-0.11}$	-0.032	$0.17_{-0.06}^{+0.13} \\ 0.17_{-0.06}^{+0.13} \\ 0.14_{-0.05}^{+0.02} \\ 0.03_{-0.01}^{+0.02}$	$0.94^{+0.04}_{-0.14}$	$2.52^{+0.14}_{-0.13}$	$0.16^{+0.09}_{-0.10}$	-0.064	$0.11^{+0.08}_{-0.04}$	$0.76_{-0.45}^{+0.18} \\ 0.49_{-0.59}^{+0.36}$
	ζ	$-0.03^{+0.03}_{-0.03}$	$0.05^{+0.02}_{-0.02}$	-0.001	$0.03_{-0.01}^{+0.02}$	$\begin{array}{c} 0.135 - 0.79 \\ 0.95 + 0.04 \\ -0.13 \\ 0.94 + 0.04 \\ -0.14 \\ 0.85 + 0.11 \\ -0.28 \\ \hline -0.96 + 0.12 \\ -0.03 \\ +0.24 \\ \end{array}$	$0.10^{+0.07}_{-0.06}$	$0.04^{+0.04}_{-0.05}$	-0.005	$0.05^{+0.04}_{-0.02}$	$0.49^{+0.59}_{-0.59}$
$n_{ m mid}$	$\eta_M$	$0.44_{-0.17}^{+0.18} \\ -1.12_{-0.17}^{+0.16} \\ -0.17$	$-0.90^{+0.18}_{-0.19}$	-0.030	$0.32^{+0.27}_{-0.14}$	$-0.96_{-0.03}$	$-0.92_{-0.12}^{+0.10} \\ -1.36_{-0.12}^{+0.12}$	$-0.22^{+0.13}_{-0.12}$	-0.012	$0.15^{+0.16}_{-0.08}$	$-0.87^{+0.47}_{-0.12}$
	$\eta_p$	$-1.12_{-0.17}$ $-2.22_{-0.17}^{+0.17}$	$-0.55^{+0.18}_{-0.19}$ $-0.24^{+0.19}_{-0.29}$	-0.027 $-0.036$	$0.31_{-0.14}$	$-0.91_{-0.08}$	$-1.30_{-0.12}^{+0.12}$ $-1.43_{-0.15}^{+0.15}$	$-0.13_{-0.13}^{+0.13} \\ 0.04_{-0.17}^{+0.17}$	-0.014 $-0.023$	$0.14_{-0.08}^{+0.15} \\ 0.20_{-0.11}^{+0.20}$	$-0.72_{-0.24}$
	$\eta_E \ \eta_Z^{ m SN}$	$-2.22_{-0.17}$ $-1.08_{-0.20}^{+0.21}$	$0.03_{-0.23}^{+0.22}$	-0.030 $-0.123$	$0.33_{-0.14}$	$0.07_{-0.24}$	$-1.43_{-0.15}$ $-1.23_{-0.13}^{+0.13}$	$0.04_{-0.17}$ $0.05_{-0.15}^{+0.14}$	-0.023 $-0.018$	$0.20_{-0.11}^{+0.17}$ $0.17_{-0.09}^{+0.17}$	$0.21_{-0.82}$ $0.33^{+0.54}$
	$\overline{v}_{ m out}$	$1.47^{+0.06}_{-0.06}$	$0.42^{+0.07}_{-0.07}$	-0.004	$0.31_{-0.14}^{+0.26}$ $0.31_{-0.14}^{+0.26}$ $0.33_{-0.14}^{+0.27}$ $0.20_{-0.11}^{+0.10}$ $0.11_{-0.05}^{+0.10}$ $0.08_{-0.04}^{+0.07}$ $0.02_{-0.01}^{+0.01}$	$\begin{array}{c} 0.30 - 0.03 \\ -0.91 + 0.24 \\ -0.08 \\ -0.67 + 0.53 \\ -0.24 \\ 0.14 + 0.66 \\ 0.78 \\ -0.78 \\ 0.98 + 0.02 \\ -0.08 \\ 0.98 + 0.02 \\ -0.07 \\ 0.91 + 0.07 \\ -0.19 \\ -0.1$	$2.26^{+0.04}_{-0.05}$	$0.00_{-0.15}^{+0.05}$	-0.002	$0.08^{+0.07}_{-0.04}$	$\begin{array}{c} -0.12 \\ -0.72 \begin{array}{c} -0.72 \\ -0.24 \\ 0.21 \\ -0.82 \\ 0.33 \begin{array}{c} +0.84 \\ -0.82 \\ 0.96 \\ -0.13 \\ 0.79 \\ -0.42 \\ 0.51 \\ -0.61 \\ -0.42 \\ 0.51 \\ -0.61 \\ \end{array}$
	$\overline{v}_{\mathcal{B}}$	$1.68^{+0.04}_{-0.05}$	$0.32^{+0.05}_{-0.05}$	-0.002	$0.08^{+0.07}$	$0.98^{+0.02}_{-0.08}$	$2.69^{+0.05}_{-0.05}$	$0.22_{-0.05}^{+0.05} \\ 0.11_{-0.06}^{+0.05}$	-0.002	$0.10^{+0.08}_{-0.04}$	$0.79^{+0.16}_{-0.49}$
	ζ	$1.68^{+0.04}_{-0.05}$ $0.03^{+0.01}_{-0.01}$	$0.04^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.91^{+0.07}_{-0.10}$	$0.14^{+0.03}_{-0.02}$	$0.03^{+0.03}_{-0.03}$	-0.001	$0.05^{+0.04}_{-0.02}$	$0.51^{+0.35}_{-0.61}$
$P_{ m mid}/k_B$	$\eta_M$	$3.02^{+0.72}_{-0.73}$	$-0.60^{+0.15}_{-0.14}$	-0.194	$0.38^{+0.30}_{-0.15}$	$-0.94^{+0.15}_{-0.04}$	$-0.32^{+0.44}_{-0.47}$	$-0.14^{+0.09}_{-0.08}$	-0.062	$0.16^{+0.16}_{-0.08}$	$-0.86^{+0.48}_{-0.12}$
	$\eta_p$	$3.02_{-0.73}^{+0.72} \\ 0.47_{-0.70}^{+0.71}$	$-0.37^{+0.14}_{-0.14}$	-0.187	$0.36^{+0.29}_{-0.15}$	$-0.87^{+0.28}_{-0.10}$	$-1.02^{+0.46}_{-0.45}$	$-0.08^{+0.08}_{-0.09}$	-0.056	$0.15^{+0.15}_{-0.08}$	$-0.69^{+0.72}_{-0.27}$
	$\eta_E$	$-1.61^{+0.68}_{-0.64}$	$-0.15^{+0.13}_{-0.13}$	-0.159	$0.33^{+0.25}_{-0.14}$	$-0.63^{+0.55}_{-0.27}$	$-1.58^{+0.59}_{-0.57}$	$0.03^{+0.11}_{-0.11}$	-0.104	$0.20^{+0.20}_{-0.11}$	$0.28^{+0.57}_{-0.84}$
	$\eta_Z^{\mathrm{SN}}$	$-1.23^{+0.82}_{-0.79}$	$0.03^{+0.15}_{-0.15}$	-0.406	$0.21^{+0.28}_{-0.12}$	$0.21^{+0.61}_{-0.80}$	$-1.39^{+0.51}_{-0.52}$	$0.04^{+0.10}_{-0.10}$	-0.075	$0.17^{+0.17}_{-0.09}$	$0.36^{+0.52}_{-0.84}$
	$\overline{v}_{\mathrm{out}}$	$0.22^{+0.20}_{-0.20}$	$0.29^{+0.04}_{-0.04}$	-0.013	$0.08^{+0.08}_{-0.04}$	$0.99^{+0.01}_{-0.05}$	$1.60^{+0.15}_{-0.15}$	$0.15^{+0.03}_{-0.03}$	-0.008	$0.06^{+0.06}_{-0.03}$	$0.98^{+0.02}_{-0.09}$
	$\overline{v}_{\mathcal{B}}$	$0.72^{+0.13}_{-0.13}$	$0.22^{+0.03}_{-0.03}$	-0.021	$0.06^{+0.06}_{-0.03}$	$0.99^{+0.01}_{-0.04}$	$2.36^{+0.19}_{-0.17}$	$0.08^{+0.03}_{-0.04}$	-0.012	$0.09^{+0.07}_{-0.04}$	$0.82^{+0.14}_{-0.38}$
	ζ	$-0.08^{+0.03}_{-0.03}$	$0.02^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.94^{+0.05}_{-0.15}$	$0.06^{+0.10}_{-0.09}$	$0.02^{+0.02}_{-0.02}$	-0.003	$0.05^{+0.04}_{-0.02}$	$0.57^{+0.32}_{-0.60}$
$\mathcal{W}/k_B$	$\eta_M$	$3.10^{+0.75}_{-0.72}$ $0.51^{+0.69}_{-0.67}$	$-0.62^{+0.14}_{-0.15}$	-0.200	$0.38^{+0.29}_{-0.15}$	$-0.94^{+0.14}_{-0.04}$	$-0.30^{+0.46}_{-0.50}$	$-0.15^{+0.10}_{-0.09}$	-0.068	$0.16^{+0.16}_{-0.09}$	$-0.84^{+0.50}_{-0.14}$
	$\eta_p$	$0.51_{-0.67}^{+0.67}$	$-0.38^{+0.13}_{-0.14}$	-0.170	$0.35^{+0.27}_{-0.15}$	$-0.88^{+0.27}_{-0.09}$	$-0.99^{+0.49}_{-0.48}$	$-0.09^{+0.09}_{-0.09}$	-0.065	$0.15^{+0.15}_{-0.08}$	$-0.69^{+0.76}_{-0.26}$
	$\eta_E \ \eta_Z^{ m SN}$	$-1.58_{-0.66}^{+0.67} \\ -1.22_{-0.79}^{+0.80}$	$-0.15_{-0.14}^{+0.13} \\ 0.03_{-0.15}^{+0.15}$	-0.154 $-1.035$	$0.33_{-0.13}^{+0.26} \\ 0.21_{-0.11}^{+0.27}$	$-0.62_{-0.28}^{+0.53} \\ 0.19_{-0.79}^{+0.63}$	$-1.60^{+0.59}_{-0.58} \\ -1.40^{+0.54}_{-0.54}$	$0.04_{-0.12}^{+0.11} \\ 0.04_{-0.10}^{+0.10}$	-0.096 $-0.084$	$0.19_{-0.10}^{+0.19} \\ 0.18_{-0.09}^{+0.18}$	$0.31^{+0.56}_{-0.86}$ $0.36^{+0.52}_{-0.85}$
	_	$0.17_{-0.21}^{+0.20}$	$0.03_{-0.15}$ $0.30_{-0.04}^{+0.04}$	-0.016	$0.21_{-0.11}$ $0.09_{-0.04}^{+0.08}$	$0.19_{-0.79}$ $0.99_{-0.05}^{+0.01}$	$-1.40_{-0.54}$ $1.57_{-0.14}^{+0.14}$	$0.04_{-0.10}$ $0.16_{-0.03}^{+0.03}$	-0.064 $-0.006$	$0.18_{-0.09}$ $0.05_{-0.03}^{+0.05}$	$0.99_{-0.07}^{+0.01}$
	$v_{ m out} \ \overline{v}_{\mathcal{B}}$	$0.17_{-0.21}^{+0.13}$ $0.67_{-0.13}^{+0.13}$	$0.30_{-0.04}^{+0.03}$ $0.23_{-0.03}^{+0.03}$	-0.010 $-0.007$	$0.05_{-0.04}^{+0.06}$ $0.06_{-0.03}^{+0.06}$	$0.99_{-0.04}^{+0.05}$	$2.35^{+0.20}_{-0.18}$	$0.10_{-0.03}^{+0.03}$ $0.08_{-0.04}^{+0.04}$	-0.000 $-0.014$	$0.09_{-0.04}^{+0.07}$	$0.83^{+0.13}_{-0.37}$
	ζ	$-0.08^{+0.03}_{-0.03}$	$0.03^{+0.01}_{-0.01}$	-0.000	$0.02^{+0.01}_{-0.01}$	$0.93^{+0.05}_{-0.16}$	$0.06^{+0.10}_{-0.09}$	$0.02^{+0.02}_{-0.02}$	-0.003	$0.05^{+0.04}_{-0.02}$	$0.55^{+0.37}_{-0.58}$
$t_{ m dep,40}$	$\eta_M$	$-2.35^{+0.56}_{-0.56}$	$0.81^{+0.18}_{-0.18}$	-0.272	$0.35^{+0.28}_{-0.14}$	$0.95^{+0.04}_{-0.14}$	$-1.57^{+0.35}_{-0.31}$	$0.19^{+0.11}_{-0.12}$	-0.069	$0.16^{+0.16}_{-0.09}$	$0.84^{+0.14}_{-0.48}$
r, +v	$\eta_p$	$-2.85^{+0.57}_{-0.54}$	$0.51^{+0.17}_{-0.18}$	-0.194	$0.35^{+0.25}_{-0.14}$	$0.89^{+0.09}_{-0.26}$	$-1.73^{+0.33}_{-0.32}$	$0.11^{+0.11}_{-0.11}$	-0.053	$0.14^{+0.15}_{-0.08}$	$0.68^{+0.27}_{-0.73}$
	$n_F$	$-2.95^{+0.53}_{-0.55}$	$0.21_{-0.17}^{+0.18}$	-0.200	$0.33^{+0.26}_{-0.13}$	$0.64_{-0.52}^{+0.26}$	$-1.28^{+0.43}_{-0.44}$	$-0.05^{+0.15}_{-0.14}$	-0.097	$0.19_{-0.10}^{+0.19}$	$-0.27^{+0.84}_{-0.58}$
	$\eta_Z^{\mathrm{SN}}$	$-0.95^{+0.54}_{-0.52}$	$-0.04^{+0.19}_{-0.19}$	-0.436	$0.20^{+0.26}_{-0.11}$	$-0.20^{+0.83}_{-0.61}$	$-1.07^{+0.38}_{-0.37}$	$-0.04^{+0.13}_{-0.13}$	-0.087	$0.17^{+0.17}_{-0.10}$	$-0.30^{+0.84}_{-0.56}$
	$\overline{v}_{ m out}$	$2.76^{+0.14}_{-0.14}$	$-0.38^{+0.05}_{-0.05}$	-0.011	$0.07^{+0.07}_{-0.04}$	$-0.99^{+0.04}_{-0.01}$	$2.94^{+0.12}_{-0.13}$	$-0.20^{+0.04}_{-0.04}$	-0.009	$0.06^{+0.06}_{-0.03}$	$-0.97^{+0.10}_{-0.02}$
	$\overline{v}_{\mathcal{B}}$	$2.69^{+0.10}_{-0.10}$	$-0.30^{+0.03}_{-0.03}$	-0.007	$0.05^{+0.05}_{-0.03}$	$-0.99^{+0.04}_{-0.01}$	$3.03^{+0.17}_{-0.17}$	$-0.10^{+0.06}_{-0.05}$	-0.022	$0.10^{+0.08}_{-0.04}$	$-0.77^{+0.44}_{-0.18}$
	ζ	$0.15^{+0.02}_{-0.02}$	$-0.03^{+0.01}_{-0.01}$	-0.000	$0.01^{+0.01}_{-0.01}$	$-0.95^{+0.13}_{-0.04}$	$0.22^{+0.08}_{-0.09}$	$-0.02^{+0.03}_{-0.03}$	-0.005	$0.05^{+0.04}_{-0.02}$	$-0.49^{+0.61}_{-0.36}$