

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

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

NOTE—Linear regression results for $\log X$ and $\log Y$. We exclude R16 for fitting of $\eta_{Z,\text{cool}}^{\text{SN}}$. The values given for the intercept α , slope β , and Pearson correlation coefficient ρ are the median and interval containing 68% of the estimates over the posterior distributions, while the 68% upper limit is given for the intrinsic scatter σ_{int} . Covariance of α and β is given in Columns (5) and (10).

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

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

NOTE—Linear regression results for $\log X$ and $\log Y$. We exclude R16 for fitting of $\eta_{Z,\text{cool}}^{\text{SN}}$. The values given for the intercept α , slope β , and Pearson correlation coefficient ρ are the median and interval containing 68% of the estimates over the posterior distributions, while the 68% upper limit is given for the intrinsic scatter σ_{int} . Covariance of α and β is given in Columns (5) and (10).

Table 5.3. Fitting results for cool and hot phases at $|z| = 500$ pc

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

NOTE—Linear regression results for $\log X$ and $\log Y$. We exclude R16 for fitting of $\eta_{Z,\text{cool}}^{\text{SN}}$. The values given for the intercept α , slope β , and Pearson correlation coefficient ρ are the median and interval containing 68% of the estimates over the posterior distributions, while the 68% upper limit is given for the intrinsic scatter σ_{int} . Covariance of α and β is given in Columns (5) and (10).

Table 5.4. Fitting results for cool and hot phases at $|z| = 1$ kpc

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

NOTE—Linear regression results for $\log X$ and $\log Y$. We exclude R16 for fitting of $\eta_{Z,\text{cool}}^{\text{SN}}$. The values given for the intercept α , slope β , and Pearson correlation coefficient ρ are the median and interval containing 68% of the estimates over the posterior distributions, while the 68% upper limit is given for the intrinsic scatter σ_{int} . Covariance of α and β is given in Columns (5) and (10).