

$\log \Sigma_{\text{SFR}, 10\text{Myr}} [\text{M}_{\odot} \text{pc}^2 \text{Myr}^{-1}]$

1
0
-1
-2
-3
-4
1
0
-1
-2
-3
-4

$$\log \Sigma_{\text{SFR}} = \log \Sigma_{\text{gas}}^{1.52} + (e^{\log f_{\text{gas}}})^{-0.4} - 4.98$$

$$\log \Sigma_{\text{SFR}} = (e^{\log \Sigma_{\text{gas}}} + (e^{\log \Sigma_{*}})^{0.49})^{0.64} - 5.33$$

$$\log \Sigma_{\text{SFR}} = \log \Sigma_{\text{gas}}^{1.26} + (e^{\log \Sigma_{*}})^{0.23} + \frac{\log(\log \sigma_{\text{gas}, z})}{\log(10)} - 5.19$$

$$\log \Sigma_{\text{SFR}} = \log \Sigma_{\text{gas}}^{1.29} + (e^{(\log \sigma_{\text{gas}, z} + \log \Sigma_{*})^{1.25}})^{0.12} - 5.21$$