Supplementary

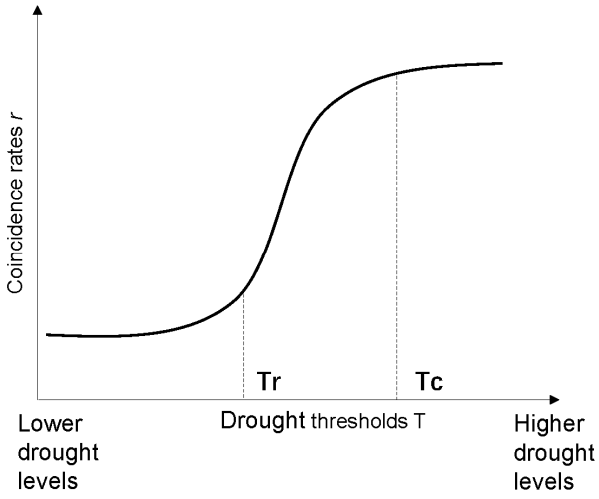


Figure S1. Hypothesis curve two soil drought thresholds.

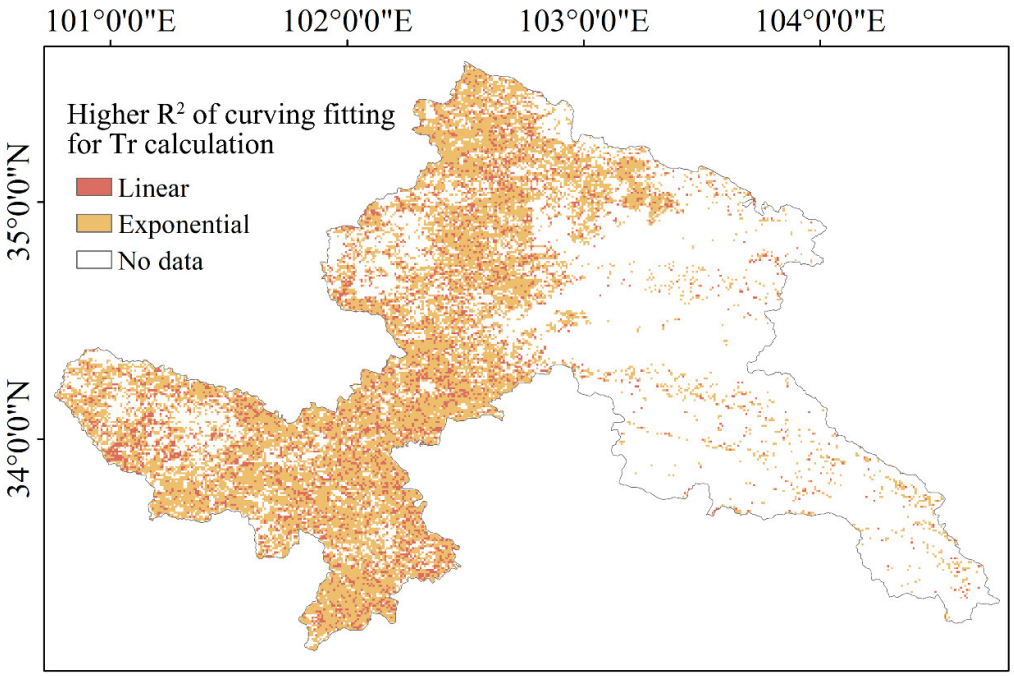


Figure S2. Higher R^2 of curving fitting for *Tr* calculation. Two fitting methods were compared, including linear fitting and exponential fitting.

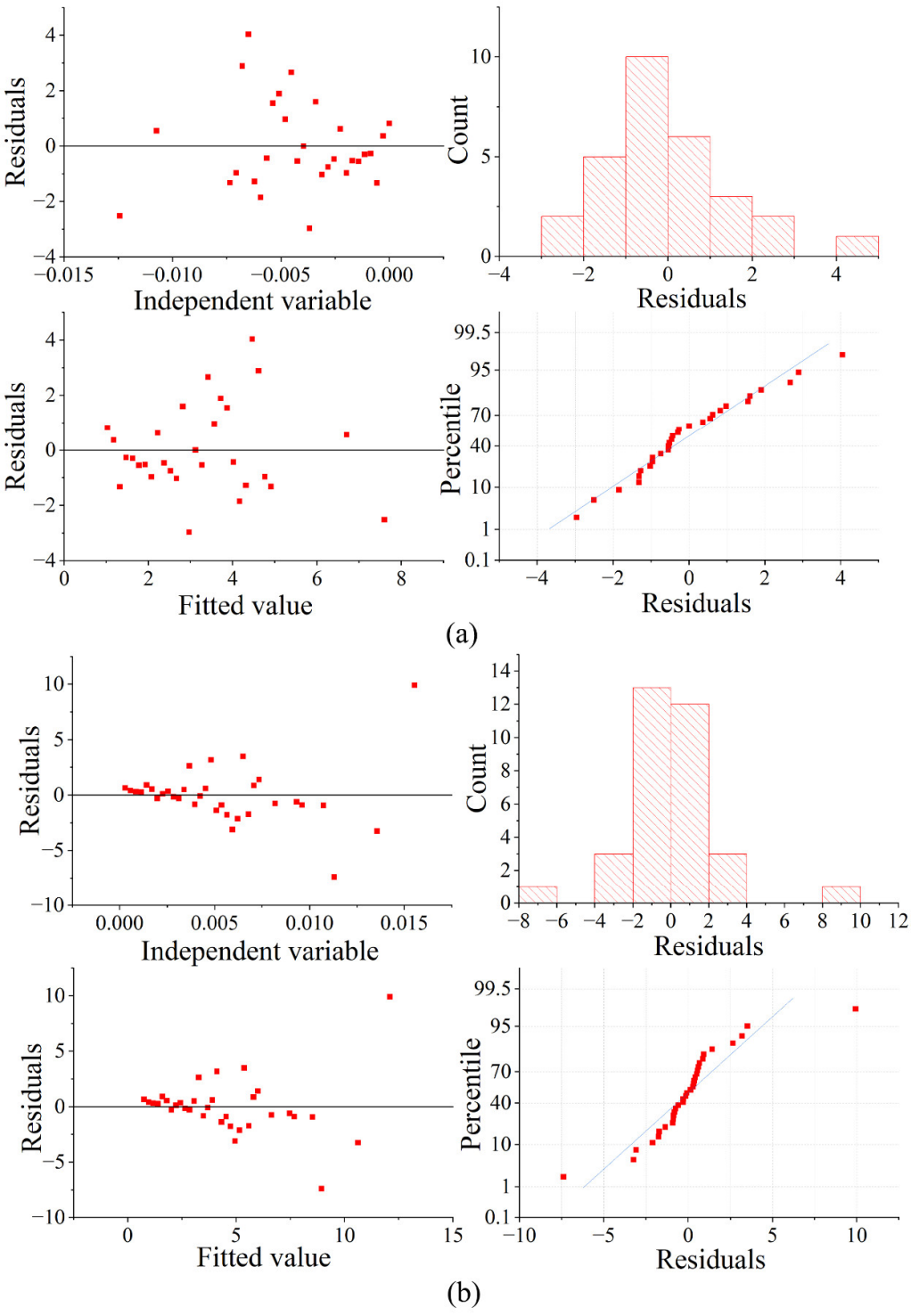


Figure S3. Residual test for linear fitting of SCV trends and *Tr*. **(a)** Test for SCV trends and *Tr* with slope<0; **(b)** Test for SCV trends and *Tr* with slope>0.

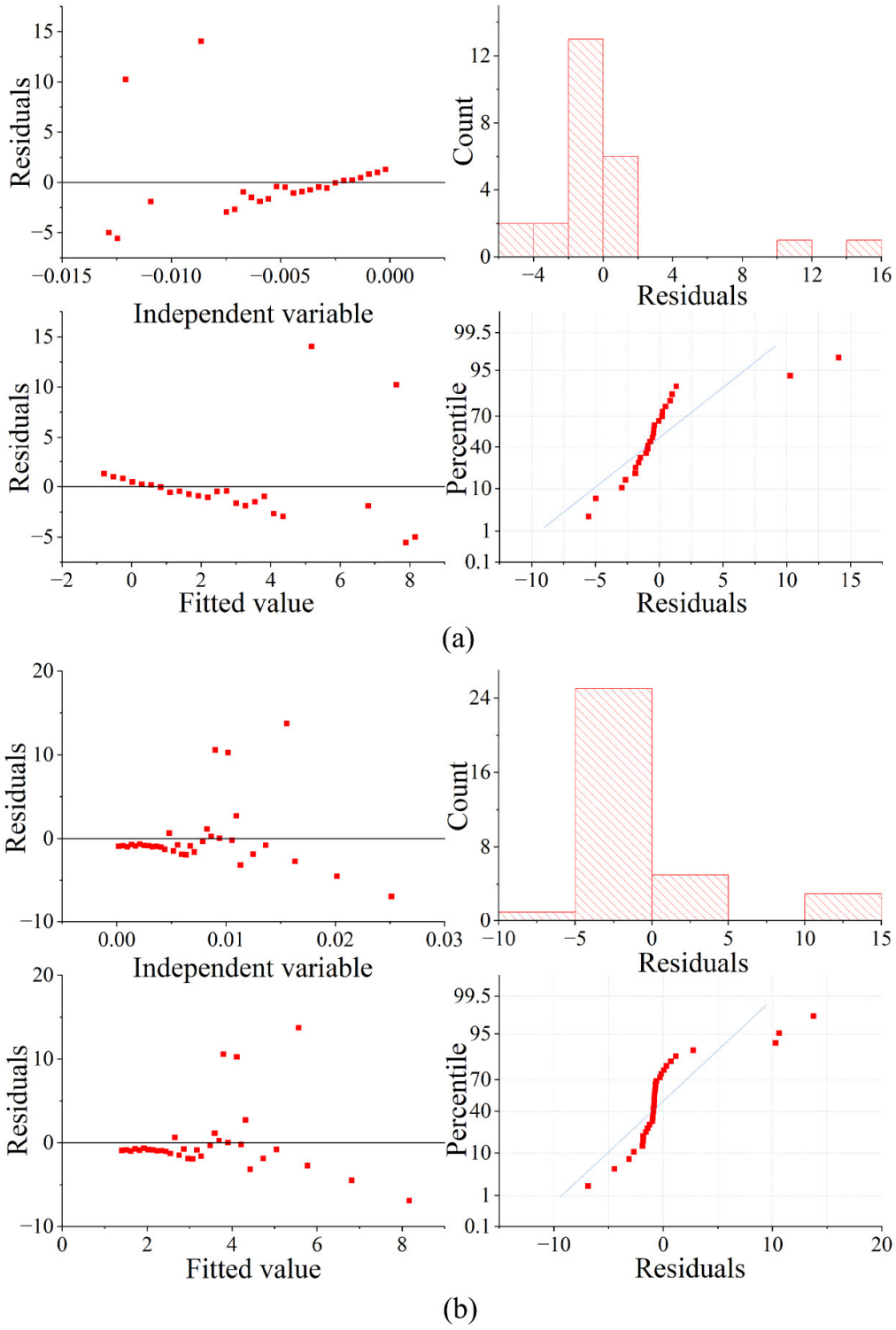


Figure S4. Residual test for linear fitting of SCV trends and *Tc*. **(a)** Test for SCV trends and *Tc* with slope<0; **(b)** Test for SCV trends and *Tc* with slope>0.

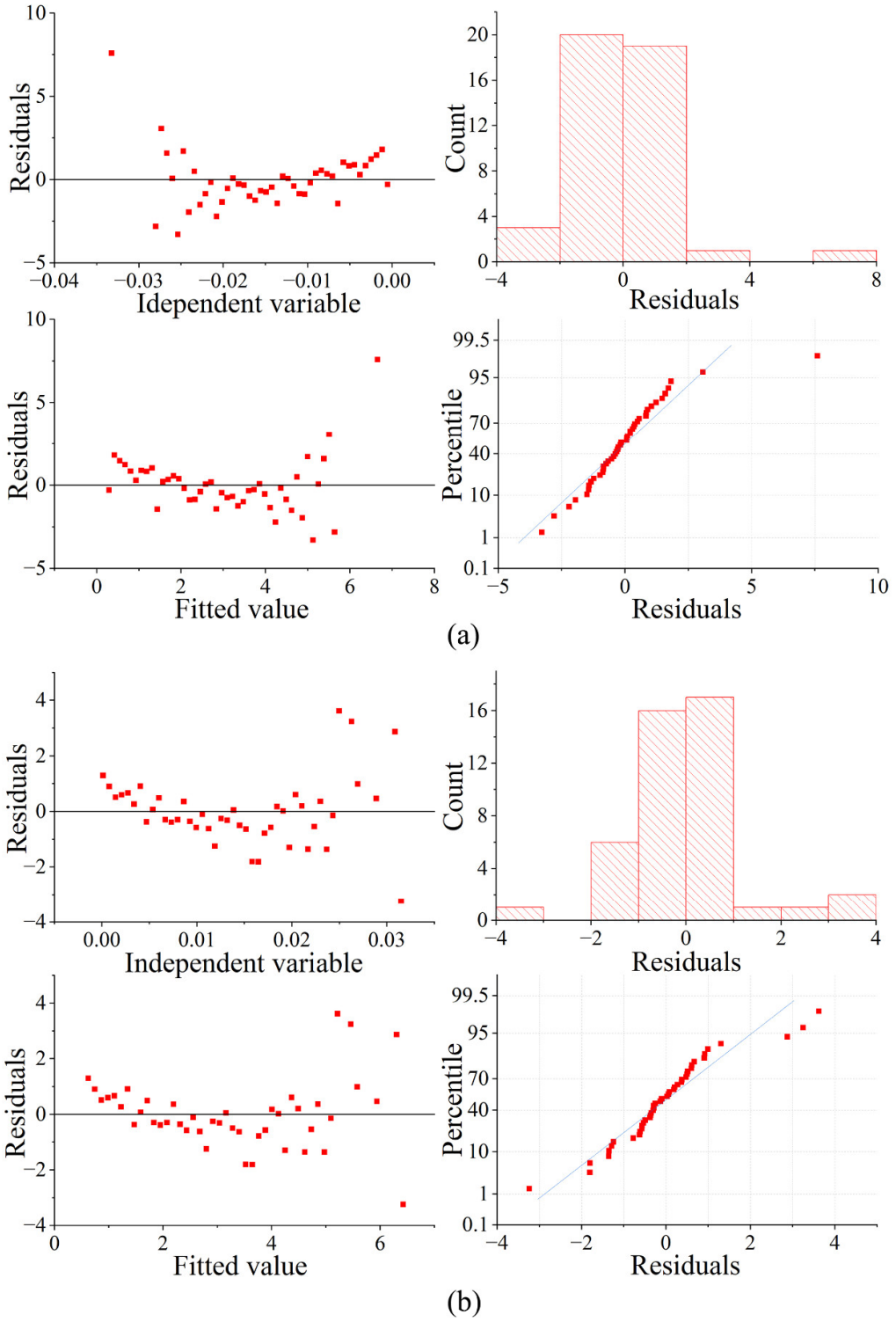


Figure S5. Residual test for linear fitting of SAC trends and *Tr*. **(a)** Test for SAC trends and *Tr* with slope<0; **(b)** Test for SAC trends and *Tr* with slope>0.

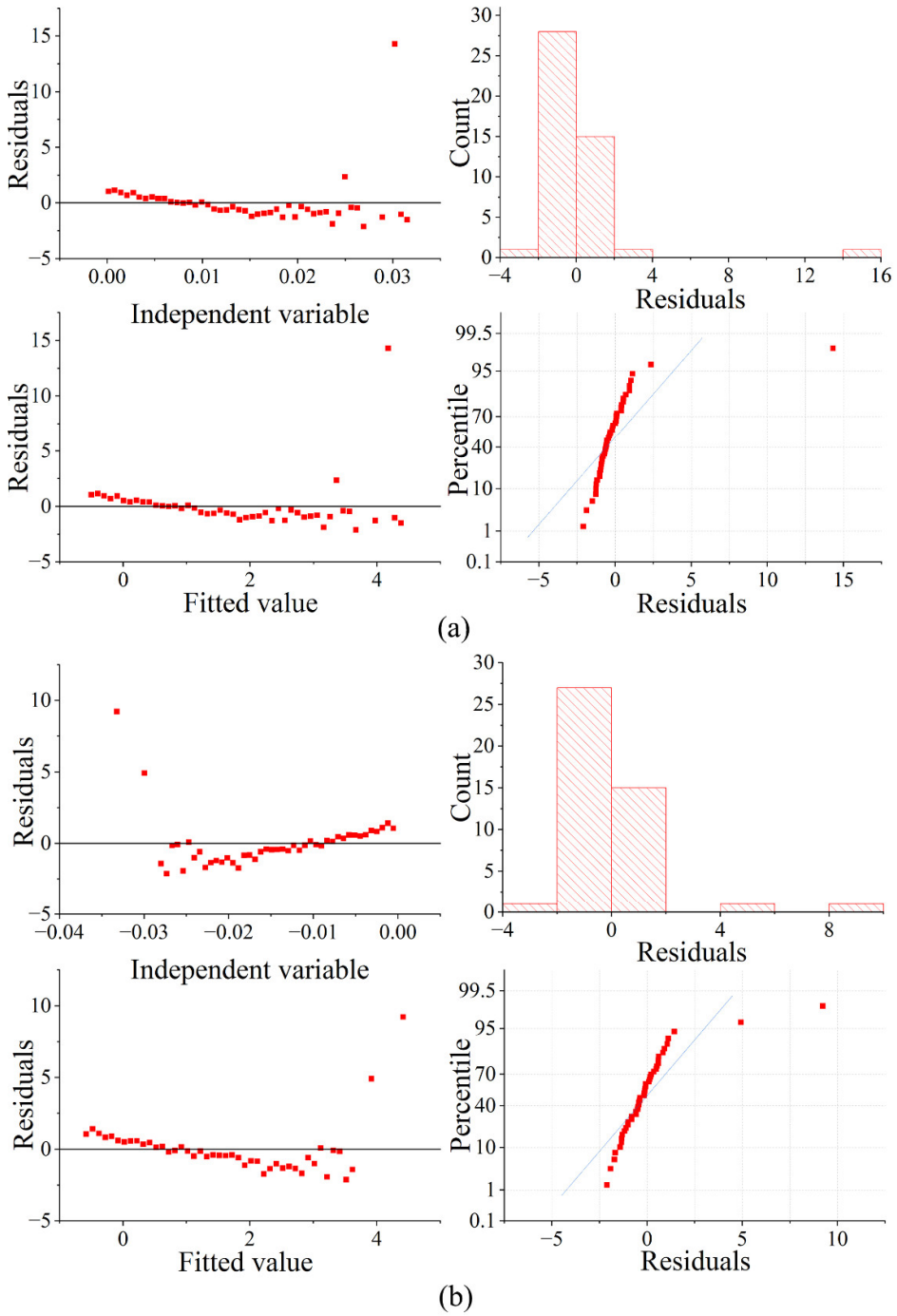


Figure S6. Residual test for linear fitting of SAC trends and *Tc*. **(a)** Test for SAC trends and *Tc* with slope<0; **(b)** Test for SAC trends and *Tc* with slope>0.

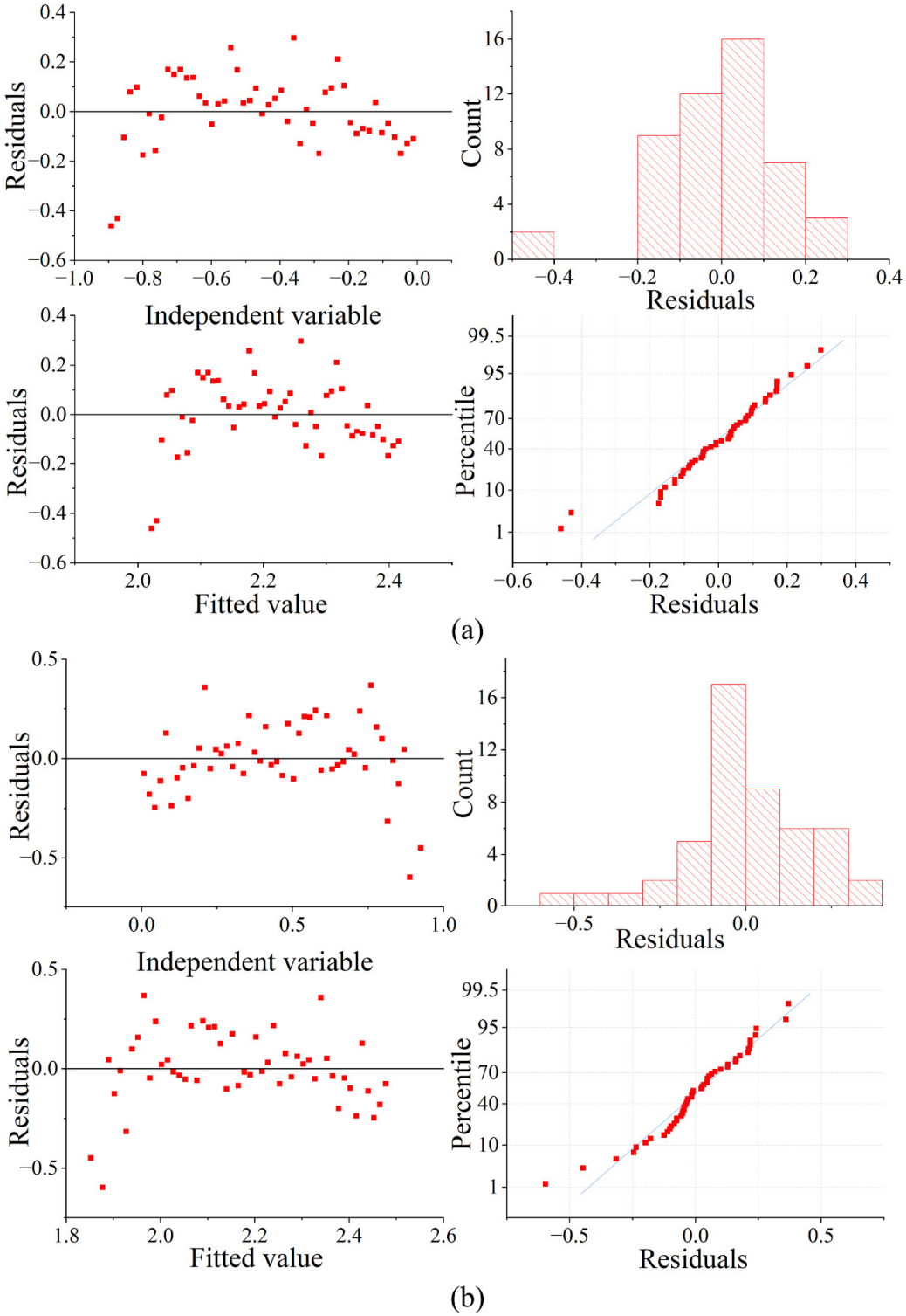


Figure S7. Residual test for linear fitting of TAC trends and *Tr*. **(a)** Test for TAC trends and *Tr* with slope<0; **(b)** Test for TAC trends and *Tr* with slope>0.

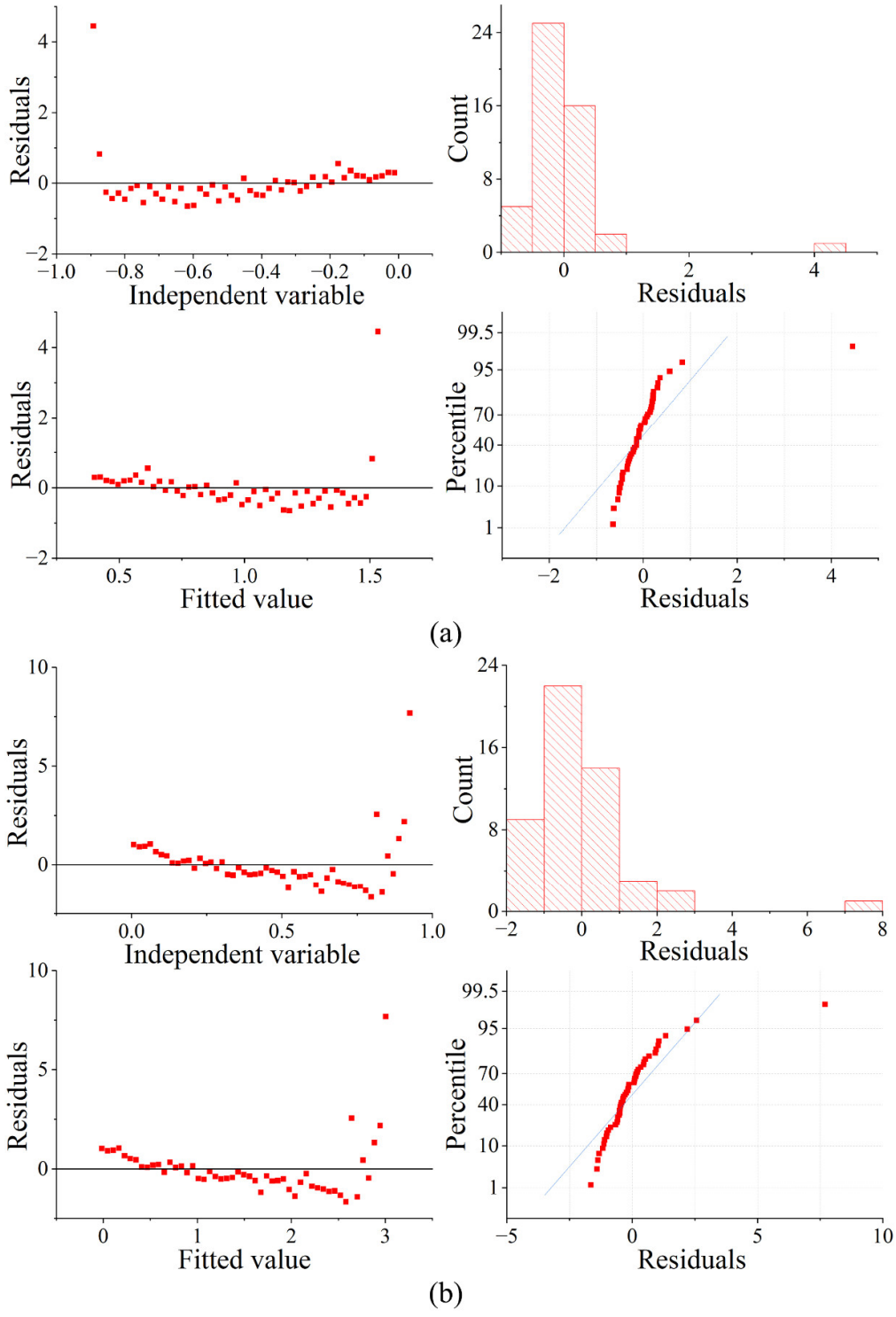


Figure S8. Residual test for linear fitting of TAC trends and *Tc*. **(a)** Test for TAC trends and *Tc* with slope<0; **(b)** Test for TAC trends and *Tc* with slope>0.