

Electronic supplementary materials

for <https://doi.org/10.1631/jzus.A2200528>

Fractal analysis of small-micro pores and estimation of permeability of loess using mercury intrusion porosimetry

Tuo LU^{1,2}, Yaming TANG^{3✉}, Yongbo TIE⁴, Bo HONG³, Wei FENG³

¹Chinese Academy of Geological Sciences, Beijing 100037, China

²China University of Geosciences, Beijing 100083, China

³Xi'an Center of China Geological Survey, Xi'an 710054, China

⁴Chengdu Center of China Geological Survey, Chengdu 610081, China

✉ Yaming TANG, tangyaming@mail.cgs.gov.cn

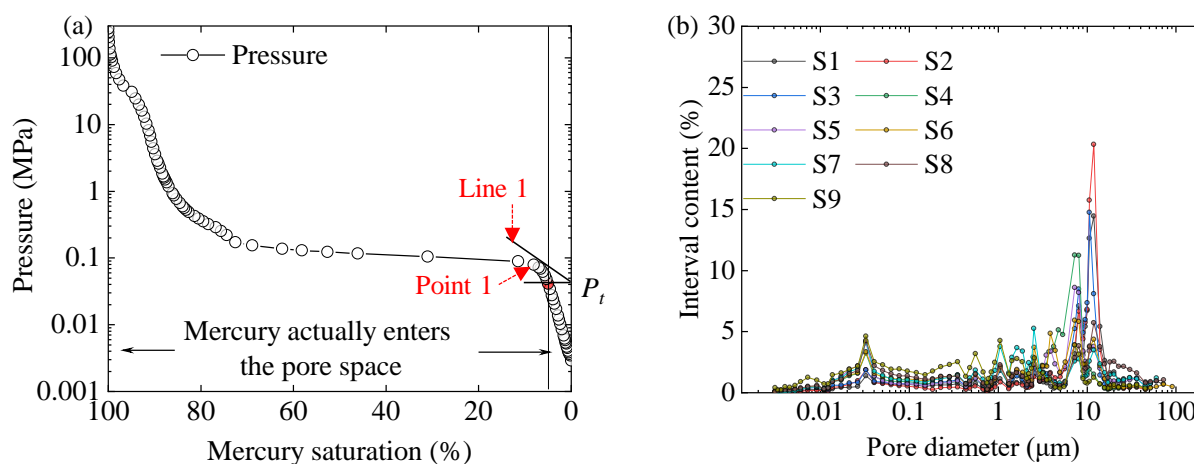


Fig. S1 The determination of pore size range and pore diameter distribution. (a) The determination of the largest diameter: Point 1 is the first turning point after the end of the plateau on the Pressure-Mercury curve, and Line 1 is the tangent line to the point 1. P_t is the intersection of line 1 and Pressure-axis. (b) Pore diameter distribution

Model 1

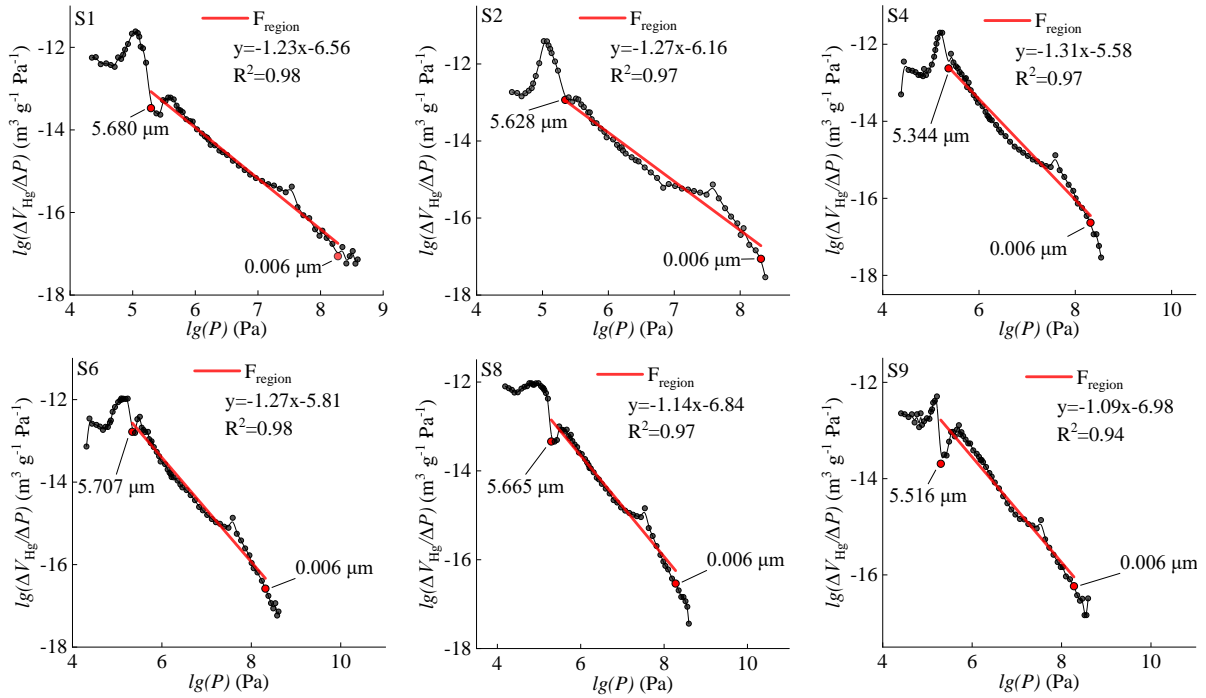


Fig. S2 Plots of $\lg(P)$ vs. $\lg(\Delta V_{Hg}/\Delta P)$ for the samples (Model 1). The fractal dimensions are shown in [Table 4](#)

Model 6

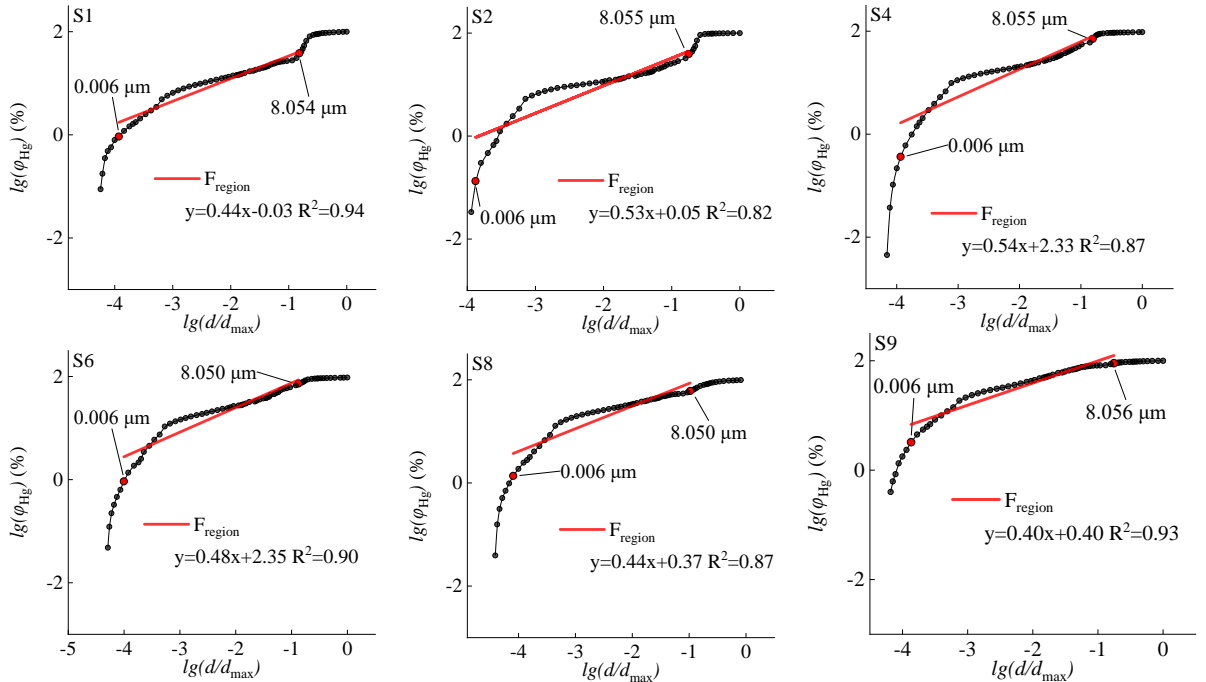


Fig. S3 Plots of $\lg(d/d_{max})$ vs. $\lg(\phi_{Hg})$ for samples (Model 6). The fractal dimensions are shown in [Table 4](#)

Model 2

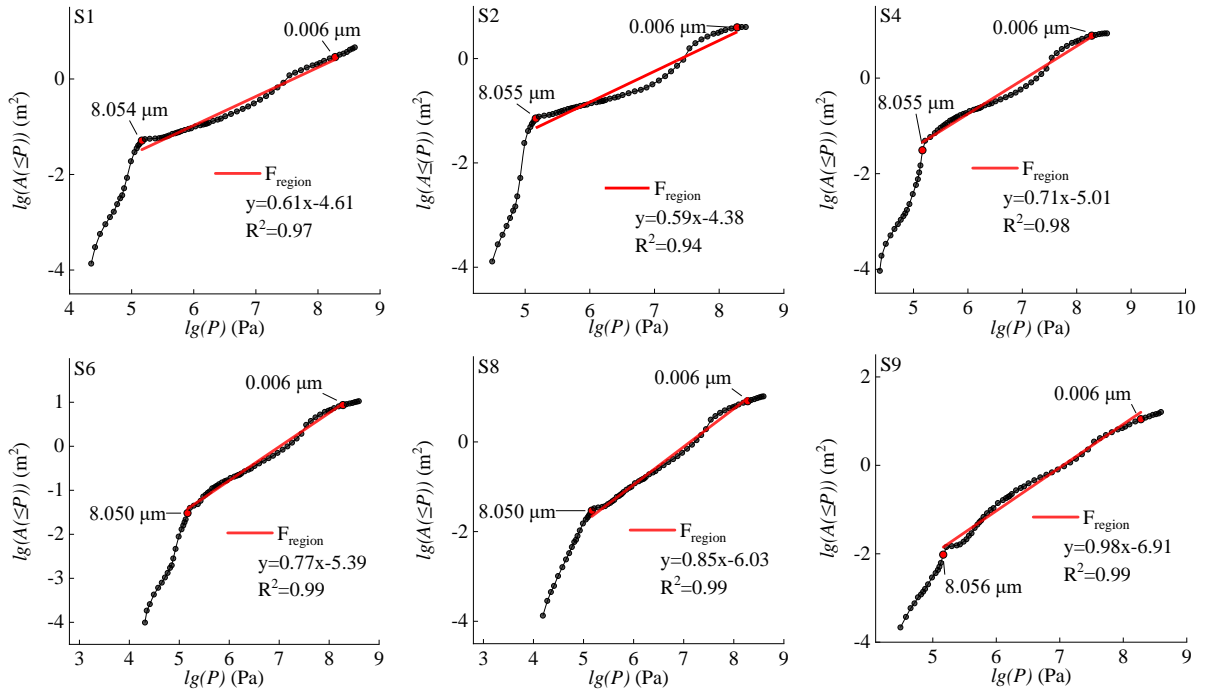


Fig. S4 Plots of $\lg(P)$ vs. $\lg(A \leq P)$ for the samples (Model 2). The fractal dimensions are shown in Table 4

Model 5

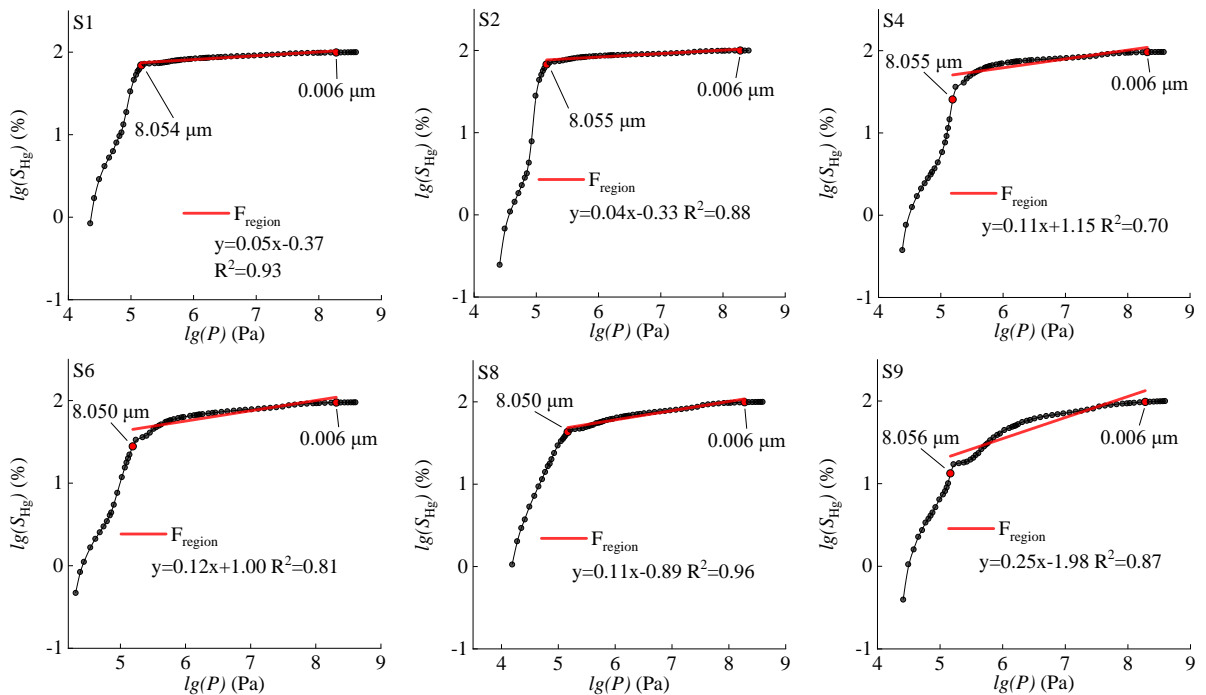


Fig. S5 Plots of $\lg(P)$ vs. $\lg(S_{Hg})$ for the samples (Model 5). The fractal dimensions are shown in Table 4

Model 3

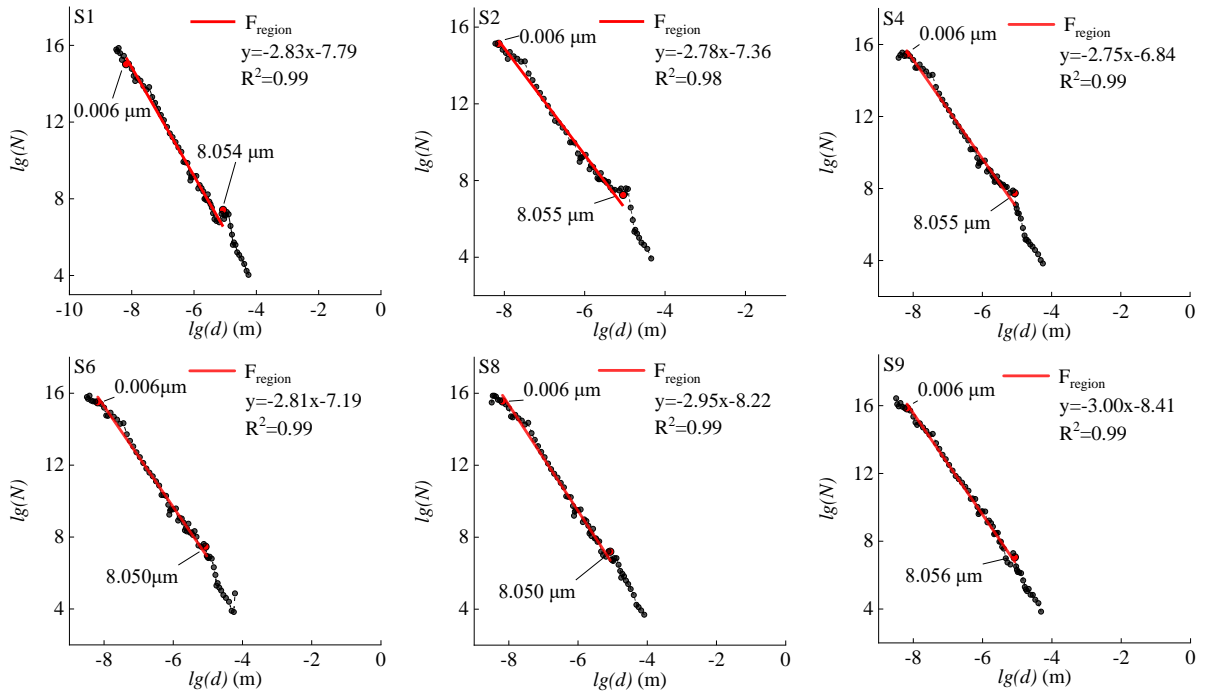


Fig. S6 Plots of $\lg(d)$ vs. $\lg(N)$ for the samples (Model 3). The fractal dimensions are shown in [Table 4](#)

Model 4

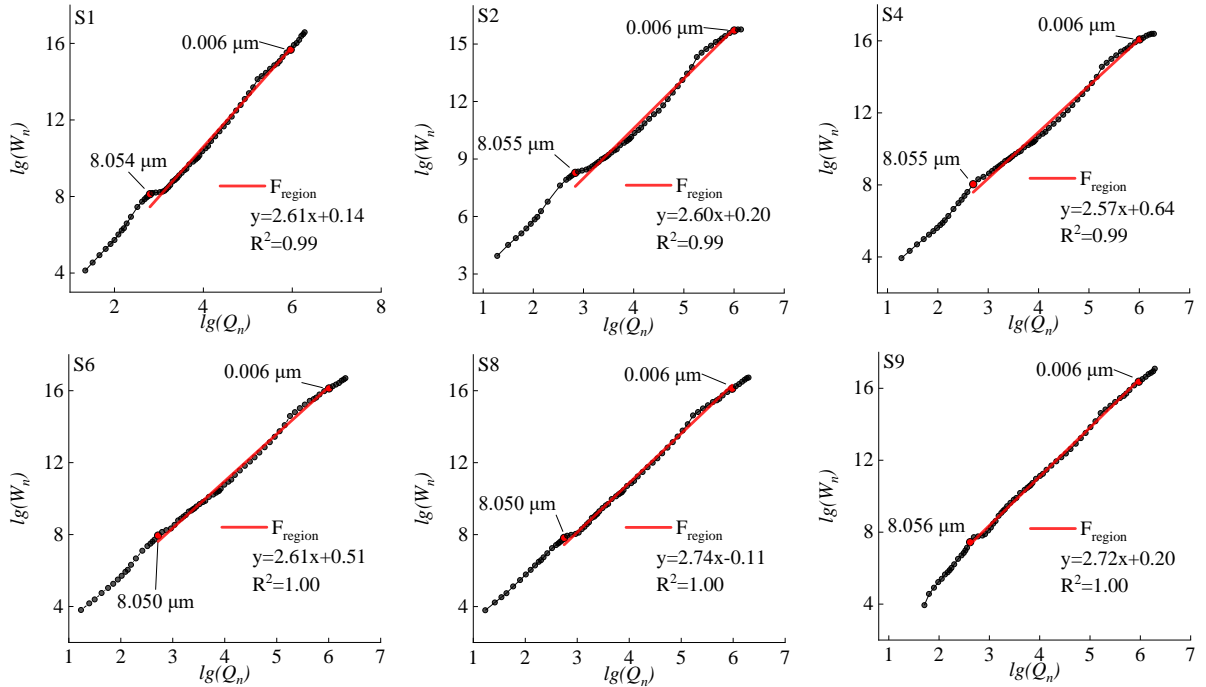


Fig. S7 Plots of $\lg(Q_n)$ vs. $\lg(W_n)$ for the samples (Model 4). The fractal dimensions are shown in [Table 4](#)