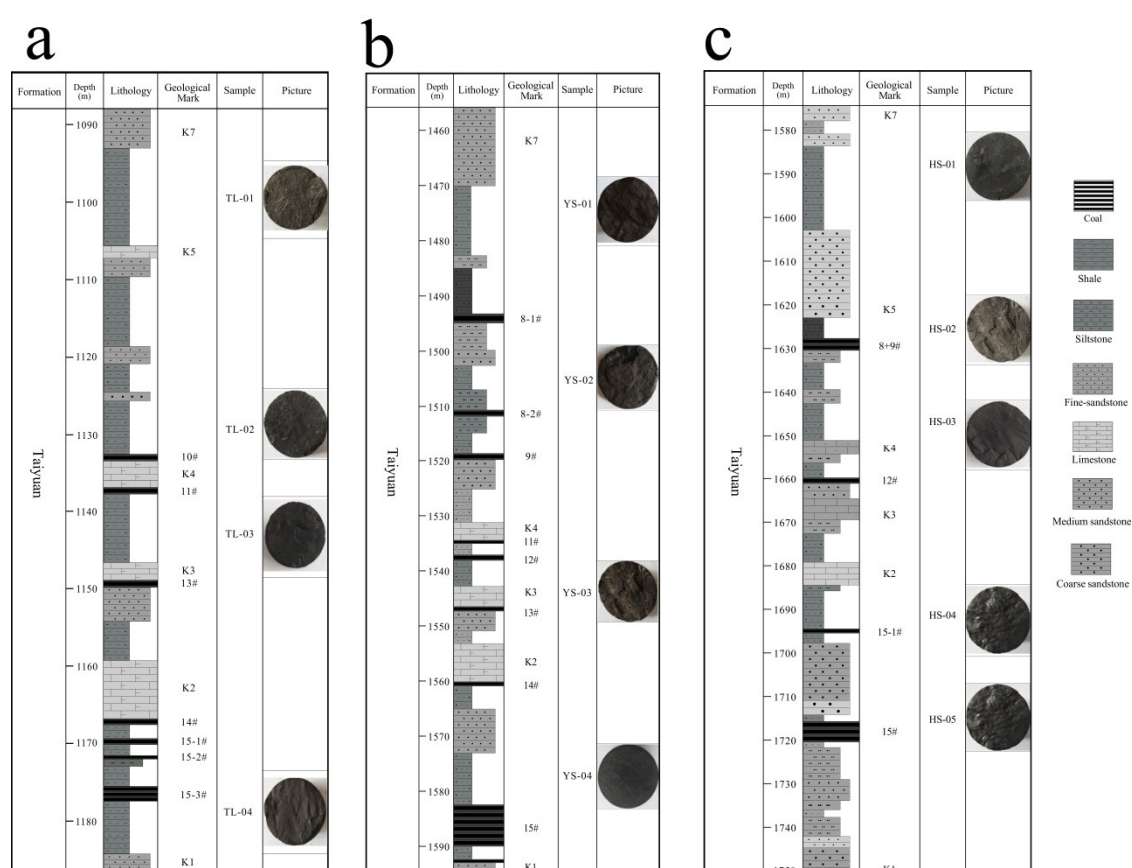


# Supporting information for

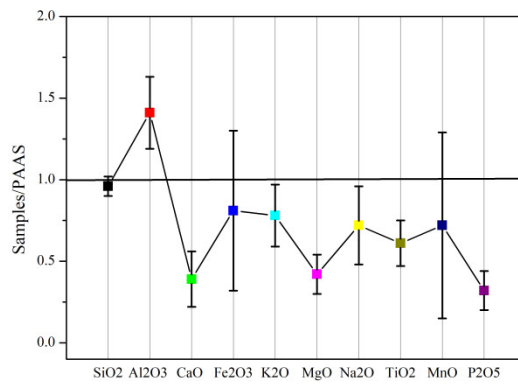
## Geochemical and Microstructural Characteristics of

### Clay Minerals and Their Effects on the Pore Structure of

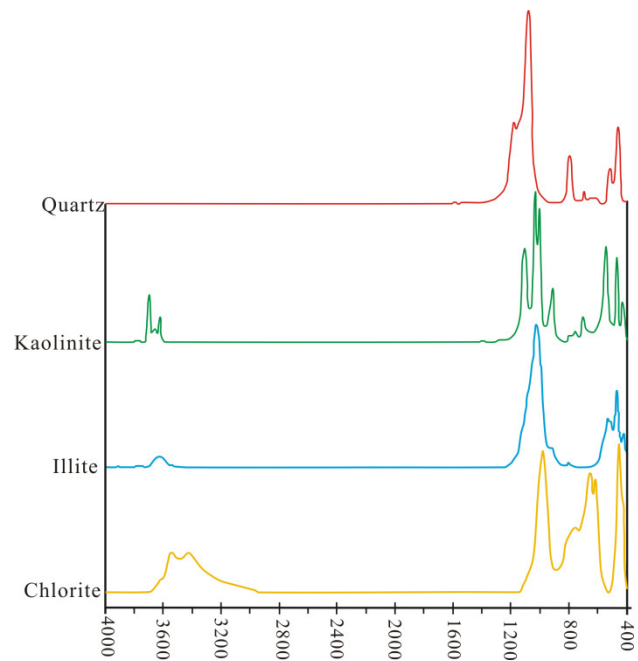
### Coal-Measure Shale: A Case Study in Qinshui Basin, China



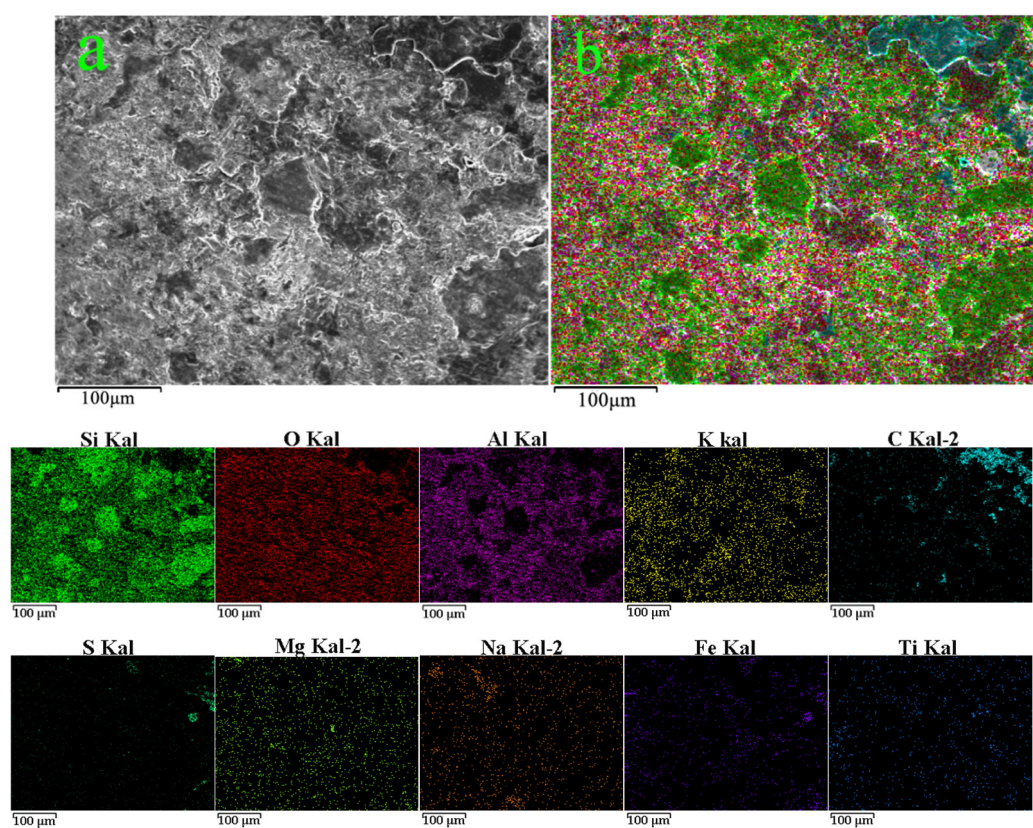
**Figure S1.** Stratigraphic column of Taiyuan formation in study area and position of samples, (a) Well TL-01; (b) YS-01; (c) Well HS-01.



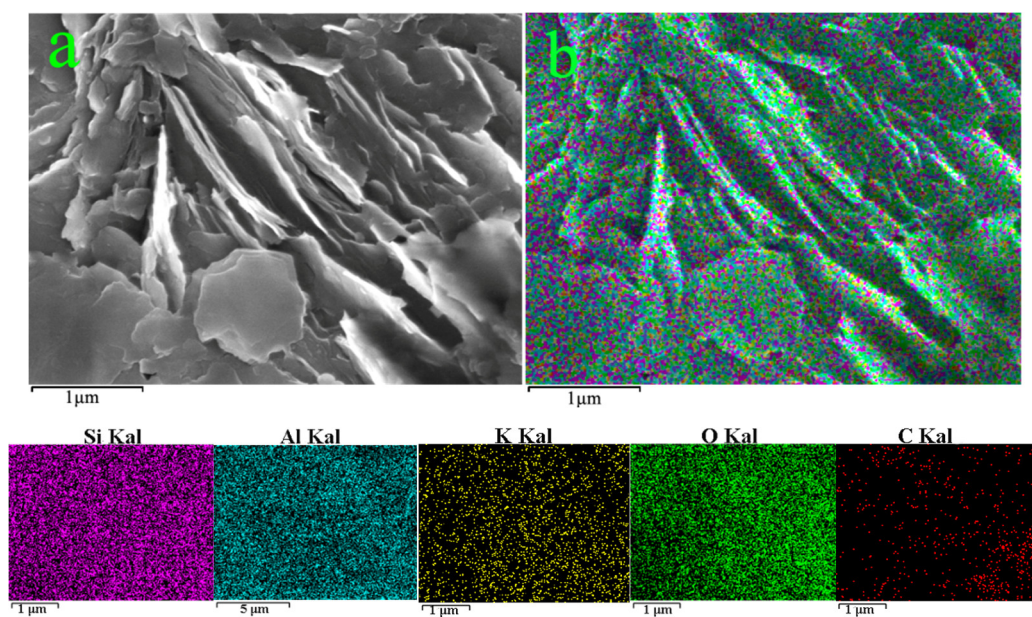
**Figure S2.** Elemental concentrations of the average of samples  
VS. those of the PAAS (Taylor and McLennan 1985).



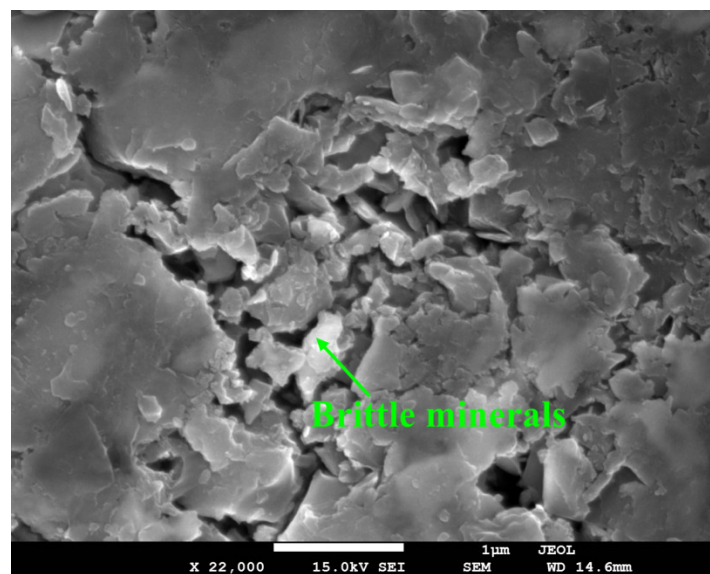
**Figure S3.** FTIR standard spectra of main minerals in the TYS.



**Figure S4.** EDS surface scanning images of TYS samples.



**Figure S5.** Kaolinite coexist with organic matters and contains K element.



**Figure S6.** Brittle minerals as rigid particles in the pores.