

Present situation of groundwater quality and pollution at the E-Mei Shan and its surrounding agricultural area,Sichuan Basin,China

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The formation mechanism of shallow groundwaters in and around the E-Mei Shan , Sichuan, China was studied in relation to the equilibrium with minerals in the hosted Paleozoic sedimentary formations and effects of anthropogenic pollution.

The major element chemistry of Ca^{2+} - HCO_3^- dominant with high Mg^{2+} and SO_4^{2-} contents are controled by the dissolution of mainly calcite and gypsum. Dolomite would be a main source for Mg^{2+} .In the alluvial fans at the foot of the E-Mei Shan, at where the rice field are widely distributed, NO_3^- pollution is caused by not only agriculture, but also direct drainage injection from houses and an industries. The level of pollution is not severe at the present, however, the future change should be watched for assessing the groundwater quality in the area.