FAN Jijiao,JI Xiaofeng,HU Qiuyun,JIN Xiaolin,PAN Jianyong and ZHANG Chao, 2013. Potential and Suitable Conditions Evaluation of CO_2 Storage in Sichuan Basin. *Acta Geologica Sinica* (English Edition), 87(supp.): 941.

Potential and Suitable Conditions Evaluation of CO_2 Storage in Sichuan Basin

FAN Jijiao[2],JI Xiaofeng[2],HU Qiuyun[1],JIN Xiaolin[2],PAN Jianyong[2] and ZHANG Chao[2]

1 China Geology Survey，No.45 Fuwai Street,Xicheng District,Beijing,100037,China;
2 China Geological Survey Center for Hydrogeology and Environmental Geology, Baoding City, Hebei Province, China, 071051

The paper takes the secondary tectonic units of Sichuan basin as the evaluation objects, with regional crustal stability conditions, basic geological conditions, reservoir and cap rock conditions, storage potential conditions ， geothermal conditions, research degree and potential resources conditions, social and economic conditions for the level one indexes, Based on the data collection and analysis for 16 level two indexes, using AHP - fuzzy comprehensive index method, think that middle gentle fold belt in Sichuan basin is more suitable for carbon dioxide geological storage; high and steep belt in Eastern Sichuan basin is not more suitable for carbon dioxide storage; fold belt of Northwest in Sichuan Basin, fold belt of Southwest in Sichuan Basin and low steep belt of Southwest in Sichuan basin is not suitable for carbon dioxide storage, and also research the storage mode locates in middle gentle fold belt in Sichuan basin，on this basis, indentified 4 geological storage areas as CO_2 geological target area, target reservoirs include Xujiahe, Leikoupo, Jialingjiang, Feixianguan formation in Triassic. This paper lays a foundation for site selection of CO_2 geologic storage in Sichuan basin.

Key words: Suitability evaluation; Sichuan Basin; geological storage of carbon dioxide; tectonic unit

* Corresponding author. E-mail: fanjijiao@chegs.cn