

# GENETIC MACHANISM OF THE LATE JURASSIC FORNTAL DEPRSSIONAL BASINS OF THE YANSHAN-YINSHAN LARGE-SCALE THRUST BELTS IN NORTH CHINA

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The Yanshan-Yinshan moumtain range is located in the northern region of North China. In the Late Jurassic a narrow E-W basin group over 1200km long and 50--80km wide developed in this area. The basin group draws the outline of a very clear E-W linear steucture in North China.

1. Braidrivers, dry lakes, alluvial fans and desert environments were developed in the Late Jurassic basins. Thick coarse clastic accumulation (1000-4500m) in the basins reflected that an intense thrusting-uplifting event occured in this area at that time.

2. The characteristics of the asymmetric fillment, E-W distributions of sedimentary facies belts and palaeocurrent-water, and coarsening-upward sequences indicate that the Late Jurassic deposition was controlled with synsedimentary thrusting on the north sides of the basins. Some of the basins are piggyback basins whose thrust sequence progresses southward.

3. The late Jurassic basins were generated under the compressitve condition from the north to the south, belonging to the frontal depressional basins of the large-scale Yanshan-Yinshin thrust structure belts. The formation of the belt resulted from the collision orogeny of the Mongolia-Okhotsk orogenic belt during the Mid-Late Jurassic to the north of the this area.