On Discussion of Concentration of Radioelements in the Earth's Crust

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Abstract: Geothermic and astrolithological studies indicated the exponential attenuation of the Earth's radioelement consistency along the depth. The explanation to this fact remains an enigma in geoscience. Through the investigation of the Earth's gas discharge, we discovered that this process have brought radioelements to the upper layer and the surface of the Earth. The same process also happened in other earthlike planets and planetoids and the older the lesser the radioelements at the planet interior. All prevailing geodynamics theories are based on the mechanism of Earth's interior thermal dynamics. But the lack of interior radioelements of the Earth heckles this thermal mechanism.

Key words: radioelement; geodynamics; the Earth's gas discharge process.

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西藏定日一带侏罗系硅化木的发现及其地质意义

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西藏定日县、定结县一带主要属北喜马拉雅地层分区,侏罗系发育,自下而上分为下统普普嘎组、中统聂聂雄拉组、拉弄拉组、上统门卡墩组和古错村组.前人认为这套地层全为一套连续的海相沉积.

中国地质大学西藏队在该区进行 1∶25 万区域地质调查时在拉弄拉组下部首次发现有小型硅化木及古植物叶化石.硅化木直径 4～5 cm,保存部分全为次生木质部.年轮明显,春材宽度大致 11～40 个管胞,管胞(假管)大致为长方形,厚壁,平均60 μm×50 μm,最大的管胞约为 80 μm×70 μm;秋材较窄,其宽度约为 4～5 个管胞,管胞较小,近于长方形,平均 40 μm×25 μm.

根据硅化木的特征将其归为 *Dadoxylon* 类,该类化石时代跨度大,二叠纪—白垩纪均有分布.中国内蒙古晚二叠世、西伯利亚二叠纪及日本白垩纪曾有报道,但主要分布在岗瓦纳大陆(包括南美、非洲、澳洲及印度),其中以印度发现最多,时代分布包含晚二叠世—中侏罗世,测区这次发现的标本与印度 Stripermatur 中侏罗统中发现的 *Dadoxylon rajmanalense Sahwi* 特征极其相似.

产硅化木地层之上的海相地层产菊石,主要有 *Kamptokephalites hampytus*, *K. etherdgei*, *Macrocephalites compressus*,均为中侏罗纪卡洛期的代表分子;下伏聂聂雄拉组产中侏罗纪巴柔期的箭石、菊石和腕足类化石.因而,该硅化木的产出层位属中侏罗纪巴通期.与硅化木共生的有大量植物碎片及古植物叶化石:*Ptilophyllum* sp., *Cladophebis* sp., *Otozamites* sp.等,植物群面貌与印度拉贾马哈尔组所产相似.产硅化木的地层为一套灰色粉砂质页岩夹灰色薄—中层细粒岩屑砂岩及粉砂岩,属一套三角洲平原沉积中的分流河道—天然堤组合,硅化木产在分流河道中,植物叶一般产在天然堤内.

硅化木、古植物叶及三角洲平原相沉积的发现至少说明:(1)测区侏罗纪并不是一套连续的海相沉

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imbricate fan and stack antiform. In the middle part, the thrust structure dominates the styles of duplex, blind thrust in low angle or interbeds and pop-up and triangle zone. In the east part, the thrust structure dominates the styles of thrust-domino. Most of the thrust faults are dip to SEE (southeast-east) and the structural styles show the detachment of the thrust faults become deeper toward southeast. Possibly, all of the thrusts linked a large-scale thrust system whose direction is from SE-SEE to NW-NWW. The strata involved the thrust system mainly include Paleaozoic group and Lower-Middle Triassic but some leading thrusts have put in the Jurassic. We confer the thrust system was formed before Jurassic and after Triassic, and progressive thrust happened during Early-Middle Jurassic. The thrust system superposed extensional and right-lateral strike-slip tectonics during Cenozoic. Some sections of Cangdong fault which was controlling the formation of Huanghua basin during Tertiary were thrust faults during pre-Tertiary.

Key words: thrust structure; structural style; pre-Tertiary; Huanghua basin.

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积,很长时间暴露于水面,具陆相沉积.此外,也说明测区中侏罗世离大陆不远,在北喜马拉雅地区应存在有典型的陆相侏罗系.这对研究北喜马拉雅地区侏罗纪海平面变化及岩相古地理有重要的意义.(2)由于硅化木和古植物叶与印度 Stripermatu 等地中侏罗系及拉贾马哈尔组所产极其相似,因而说明本区中侏罗世应与上述地方同属岗瓦纳大陆,为板块构造的划分提供了重要的生物古地理证据.