

from 1.911 to 1.883 Ga accompanying with the high-pressure metamorphism in the southern part of the orogen, the closing of the rift and the compressional deformations. Then, from 1.875 to 1.66 Ga, a little lithospheric blocks were delaminated, anorogenic plutons such as rapakivii granite and syenite intruded, the pegmatite veins and mafic dyke swarm developed and crosscut all the structural traces, the Yishulazi Group deposited. Meanwhile, the Dabie-Sulu orogen in the south of the eastern block was an intensive active continental margin at a range from 1.7 to 1.6 Ga. After 1.6 Ga, the Dabie-Sulu orogen underwent a series of crust reworking, evidently differentiating from the major eastern block. In summary, the tectono-thermal evolution in the crust is dominated by the underplating style, collisional processes and delamination types in the deep lithosphere.

Key words: Paleoproterozoic; tectono-thermal evolution; deep processes; underplating; delamination

中国内蒙古晚白垩世一新原角龙类(恐龙:新角龙)

尤海鲁¹⁾ 董枝明²⁾

1) 中国地质科学院地质研究所, 北京, 100037; 2) 中国科学院古脊椎动物与古人类研究所, 北京, 100044

本文记述了由中加恐龙合作计划发现于内蒙古巴音满都乎晚白垩世的一几近完整头骨化石。新材料代表原角龙科恐龙一新属种: 道德森巨吻龙 (*Magnirostris dodsoni* gen. et

sp. nov.)。巨吻龙具有较发育的吻骨和初步发育的眶角而区别于其它原角龙科成员。巨吻龙和小角龙 (*Bagaceratops*) 因都具有两个眶前孔而关系密切。

江苏东海芝麻坊石榴二辉橄榄岩中金刚石的发现及其意义

潘明宝^{1,2)} 张庆龙¹⁾ 卢华复¹⁾ 陈火根²⁾ 陈守矩²⁾ 朱士鹏²⁾

1) 南京大学地球科学系, 210093; 2) 江苏地质调查研究院, 南京, 210018

沿苏鲁造山带南缘江苏省东海县至山东省荣成县, 伴随超高压变质带显著地发育着一条超基性岩带, 可进一步划分为许沟岩带(北带)和毛北—岗尚岩带(南带)。在南带的芝麻坊石榴二辉橄榄岩中通过人工重砂获取了一颗金刚石, 粒径 2.13 mm × 1.42 mm × 0.83 mm, 重 9.4 mg, 呈阶梯状八面体, 晶体浅黄色, 表面略带绿色斑点, 透明, X 射线下发天蓝色光, 紫外射线下不发光, 拉曼光谱谱线峰值出现于 1330 cm⁻¹, 强度与标样一致。金刚石的存在证明芝麻坊石榴二辉

橄榄岩捕虏体来源于岩石圈上地幔。由于芝麻坊石榴二辉橄榄岩捕虏体发育于花岗质片麻岩中, 它的就位机制与金伯利岩中石榴二辉橄榄岩显然不同。苏鲁造山带在晚元古代为华北板块边部活动性大陆边缘, 由洋壳拉斑玄武岩构成的相对较冷、含水的消减板片俯冲于华北克拉通岩石圈地幔之下, 在高温高压作用下, 发生部分熔融, 形成花岗质岩浆和含水流体, 底辟上升刺穿上覆地幔楔, 使之碎裂, 残片作为岩浆捕虏体被携至地壳。