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淮北煤田宿临矿区现今地温场分布特征及其影响因素

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摘要 淮北煤田是我国华东地区最主要的能源供给基地之一, 研究其现今地温场特征既是强烈的现实要求, 也具有十分重要的理论意义. 本文在淮北煤田宿临矿区区域地质研究的基础上, 根据位于宿临矿区内不同构造单元中的8个主要煤矿井田及其邻近区域111个钻孔的测温数据, 绘制了矿区现今地温\深度关系图、现今地温梯度\深度关系图以及不同构造单元的现今地温梯度分布图, 分析了宿临矿区现今地温场的分布特征. 研究表明, 宿临矿区现今地温梯度分布范围介于1.50~3.80 °C/hm, 整个矿区平均现今地温梯度约为2.65 °C/hm, 与华北其他主要能源盆地相比有所差异. 宿临矿区现今地温梯度在相同构造单元内分布具有褶皱隆起区高、断裂密集区域高的特点; 不同构造单元中井田的平均现今地温梯度相比较则表现出由东部构造单元至西部构造单元逐步增高的趋势. 分析表明, 区内现今地温场主要受构造格局和岩性变化影响.

关键词 [淮北煤田宿临矿区](#) [现今地温场](#) [现今地温梯度](#) [分布特征](#) [影响因素](#)

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Distribution characteristics and influence factors of present geo-temperature field in Su-Lin mine area, Huaibei coalfield

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Abstract Huaibei coalfield is an important base of energy sources in East China. The investigation to its distribution characteristics of present geothermal field not only has practical value, but also has theoretical significance. Based on the analysis of regional geology in Su-Lin mine area and present geo-temperature data from 8 mines and 111 wells of different structural units, we discuss the present geothermal field distribution characteristics of this area, which include the relationship curves of present geo-temperature and its gradients with depth, and the distribution of present geothermal gradients in various regions. The results indicate that present geo-temperature gradients of this area are between 1.50 °C/hm and 3.80 °C/hm, the average geo-temperature gradient is about 2.65 °C/hm. The characters of present geothermal field in Su-Lin mine area are different from other major energy basins of North China. In the same structural unit, fold uplift belt and dense faults area always have higher geothermal gradients than other places. In different structural units, present geo-temperature gradients increase gradually from east to west. The distribution features of present geo-temperature field in Su-Lin mine area is mainly controlled by the structures and rocks.

Key words [Su-Lin mine area of Huaibei coalfield](#); [Present geo-temperature field](#); [Present geo-temperature gradient](#); [Distribution characteristics](#); [Influence factor](#)

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