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化学

高放废物处置库野马泉预选场址地下水放射性同位素特征

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摘要 甘肃北山野马泉地区是我国高放废物处置库预选场址之一。文章阐述高放废物处置库天然类比研究的主要内容，并阐述类比研究中涉及的地球化学问题。以野马泉岩体为例，研究地下水铀、钍含量及放射性特征、铀同位素特征。初步认为，在当地的地质、水文地质等环境条件下，铀的迁移能力有限，迁移距离较小。这一认识为预选场址评价提供了重要的信息和依据。

关键词 高放废物处置库 预选场址 野马泉 地下水 放射性同位素

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Radioactive Isotope Features of Groundwater in Yemaquan Preselected Site for China's HLW Disposal Repository

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Abstract Yemaquan region in Beishan area, Gansu Province, is one of the preselected sites of disposal repository for high-level radioactive waste (HLW) in our country. The main content of natural analogue research of high-level waste disposal repository was introduced in the paper. The major geochemical issues related to the analogue research were described. Taking Yemaquan rock body as an example, U, Th, radioactive features and U isotopes of groundwater were studied. The result shows that the migration ability and distance of U are very limited in the geological, hydrogeological environmental conditions. This cognition provides very important information and basis for the evaluation of Yemaquan preselected site.

Key words high-level radioactive waste disposal repository _ preselected site _ Yemaquan _ groundwater _ radioactive isotope

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