

物理

沙漠砂的选频释光特征

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摘要 采用BG2003释光仪研究新疆的克拉玛依、沙湾黄梁、阜康西和鄯善, 甘肃的雅丹、月牙泉, 河北的天漠8个沙漠砂样品的选频释光特征, 确定了发射光子的特征发射频率。在红光(632.8 nm)激发下, 释光光子波长为480和320 nm时最为突显; 热释光峰(350~400 °C)释放出最多光子的波长分别为460和350 nm。沙湾黄梁、鄯善、天漠冲积扇在波长为500 nm和鄯善在波长310 nm时表现出在一定剂量范围内释光光子数随辐照剂量增大的趋势, 所以, 此波长可分别用于测年。

关键词 [沙漠沙](#) [释光](#) [特征图谱](#)

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Characteristic of Selected Frequency Luminescence for Desert Sand

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Abstract Eight desert sand samples from Xinjiang's Kelamayi, Shawan Huangliang, Fukangxi and Shanshan, Gansu's Yadan, Yueya Quan, Hebei's Tianmo were tested with BG2003 luminescence spectrograph. They are sampling from surface located. The characteristic spectra of the selected frequency luminescence of sands from different location were obtained. The wave lengths of emission photons in all samples are 480 and 320 nm. Their luminescence intensity is the highest for optical luminescence (OL). They are 460 and 350 nm in TL. The samples of Shawan Huangliang, Shanshan and Tianmo alluvial fan can response to definite radiological dose at 500 nm wave length and Shanshan's can also response at 310 nm.

Key words [desert](#) [sand](#) [luminescence](#) [characteristic](#) [spectrum](#)

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扩展功能

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