

论文

小波变换在识别储层流体性质中的应用

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摘要 根据小波变换的特点提出一种识别储层流体的新方法. 本文假设测井所得的信号为地层微观孔隙结构、地层流体性质及岩性和岩相等各部分的综合贡献之和, 不同的储层中小波分析的能量谱特征不同, 因而通过对已知储层模型进行小波能量谱分析, 可得到各种储层的特征能量谱, 根据这些储层特征能量谱就可以对待划分的储层段进行储层流体性质判别.

关键词 [小波变换](#) [能谱分析](#) [储层流体识别](#) [电法测井](#)

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A METHOD FOR RECOGNITION OF FLUID PROPERTY IN RESERVOIRS USING WAVELET TRANSFORMATION

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Abstract We attempt to develop a new method for recognition of fluid properties in eservoirs by using wavelet transform. Assume that signals of electric well logging epresent the integrated contribution of many subsurface factors. They include microscope porous structure of strata, properties of underground fluids, rock features and rock hases. The characteristics of energy spectra from wavelet analyses for varied reservoirs are iffereent. So we can obtain characteristic energy spectra of various kinds of eservoirs through wavelet analysis to known models. With these spectra we can make recognition of fluid properties to reservoir sections, which are to be distinguished.

Key words [Wavelet transform](#); [Energy spectrum analysis](#); [Reservoir fluid recognition](#); [Electric well logging](#).

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