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Fractal Properties of CdTe Quantum Dots Dendrites*

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Here we present the analyses of fractal properties of CdTe dendrites. The spectral characteristics of dendrites obtained at different acids of the initial solution were investigated. We demonstrate the displacement of the local luminescence peak depended on the branches of the dendritic structure. The fractal dimension has been calculated by the box-counting method. We obtained the correlation between the local peak of luminescence and the Minkowski dimension.

Keywords: fractal dimension, dendrites, quantum dots, CdTe, Minkowski dimension.