

Structural and optical properties of CdS nanocrystals embedded in NaCl single crystals

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Publication date

2004/3/30

Journal

Catalysis today

Volume

89

Issue

3

Pages

293-296

Publisher

Elsevier

Description

The elaboration of the CdS nanocrystals embedded in a NaCl single crystal has been performed using the Czochralski method. The optical density spectrum shows a blue shift of the absorption edge towards the high energies. The energy gap has been found to be 2.70 eV. The photoluminescence has been assigned to the neutral-donor band (D^0 , X) and radiative recombinations from deep defect and impurity levels.