FORMATION OF NANOSTRUCTURES ON THE VdW-SURFACE OF CdI_2 CRYSTALS

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S u m m a r y

Morphological characteristics of nanosized defects and nanostructures formed on the surface of CdI_2 layered crystals have been studied and the processes of their growth under the conditions close to the thermodynamic equilibrium have been analyzed. The formation of nanosized structures – nanoclusters and nanopores – emerging on the CdI_2 surface after holding the crystals in air for some time was revealed for the first time. A mechanism of cluster formation was proposed, which includes a number of stages of cluster growth; these are nucleation, formation of separate noninteracting nanoaggregates, and association of the latter into agglomerates. The major morphometric characteristics of nanostructures – their average radius and height, and the average distance between the nearest neighbors – were analyzed.