Full Paper _____ *Thematic Section:* Research of the New Processes.
Reference Object Identifier – ROI: jbc-02/15-44-10-40 *Subsection:* Inorganic Chemistry.
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*".
http://butlerov.com/readings/ *(English Preprint)*
Contributed: September 10, 2015.

Thematic division: Hydrochemical synthesis of metal chalcogenides films. Part 27.

Influence of iodine-containing addition on composition, morphology and structure of PbSe thin films

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Keywords: chemical bath deposition, thin films, lead selenide, iodine doping.

Abstract

Influence of iodine addition on elemental composition, structure and surface morphology on lead selenide thin films prepared by chemical bath deposition method was studied by methods of X-ray diffraction analysis and scanning electron microscopy with elemental energy-dispersive analysis. Content of iodine in thin films raised to 4.25 at. % with increasing concentration of ammonium iodide in bath solution. Influence of iodine dopant on lattice constant and crystallite size of lead selenide thin films was found.