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Hydrochemical bath deposition of solid solutions replacements in system Cu_2S−CdS

© **Larisa N. Maskaeva**,[1,2]* **Alexandra O. Polepishina**,[1]
Alexey N. Ermakov,[3] **Emma G. Vovcotrup**,[4] and **Vyacheslav F. Markov**[1,2]*
[1] *Chair Physical and Colloidal Chemistry. The Ural Federal University of a Name of the First President of Russia B.N. Yeltsin. Mira St., 19. Yekaterinburg, 620002. Sverdlovsk Area. Russia. Phone: +7 (343) 375-93-18. E-mail: markv@mail.ustu.ru*
[2] *Chair of Chemistry and Burning Processes. Ural Institute GPS of the Ministry of Emergency Measures of Russia. Mira St., 22. Yekaterinburg, 620022. Russia. Phone: +7 (343) 360-81-68 E-mail: mln@e-sky.ru*
[3] *Institute of Chemistry of a Solid State. The Ural Branch of the Russian Academy of Sciences. Pervomaiskay St., 91. Yekaterinburg, 620990. Russia. E-mail: Ermakov@ihim.uran.ru*
[4] *Institute of High-Temperature Electrochemistry. The Ural Branch of the Russian Academy of Sciences. Covalevskoy St., 22. Yekaterinburg, 620990. Russia.*

*Supervising author; +Corresponding author

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Abstract

The calculation of conditions for joint formation CdS and CuS from ethylenediamine system. For the first time by hydrochemical deposition obtained polycrystalline solid solutions $Cu_xCd_{1-x}S$ with a copper content of 69 at. %. Using methods X-ray diffraction, gray scale, and Raman spectroscopy investigated their composition, structure and morphology. The dependence of the solid solutions $Cu_xCd_{1-x}S$ relationship of the content of metal salts in the reaction mixture.