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The invention relates to the technology for obtaining multicomponent oxide materials, in particular to a process for obtaining nanostructured zinc gallate, which may be used in devices sensible to ultra-violet and visible spectral ranges and materials for gas sensors.

The process includes mixing of the aqueous solutions of salts, containing Ga^{3+} and Zn^{2+} ions in the molar ratio 2:1, slow heating with agitation during 5 minutes, afterwards it is added a concentrated ammonia solution, then the mixture is agitated during 10...15 minutes, it is filtered, the residual solution is boiled up to $\text{pH}=7...8$, the precipitate formed after boiling is filtered and calcined during 6 hours at the temperature of $700...800^{\circ}\text{C}$.

At the same time, for zinc gallate obtaining it is carried out doping with rare-earth ions in the concentration of 0,1...1% mol by adding to the solutions, containing Ca^{3+} and Zn^{2+} ions, aqueous solutions of rare-earth metal salts.

Claims: 2

Fig.: 1