P45. Investigation of $Bi_{0,9}La_{0,1}FeO_3$ Sol-Gel films by XRD

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$Bi_{0,9}La_{0,1}FeO_3$ thin films by sol-gel method were synthesized and their properties on dependence of the temperature of heat treatment were investigated. Salts of metals, ethylene glycol, zitric acid, ethylenediamine were used for the films synthesis. $Bi_{0,9}La_{0,1}FeO_3$ thin films were annealed at the different temperatures for 20 minutes. XRD was by sliding method measured.

As in the case of $BiFeO_3$ powders [1] and films, perovskite phase formation begins at the temperature of 500 °C. The increasing of the synthesis temperature leads to the decrease of the content of the required phase due to the weak bond of bismuth ions in the crystalline cell.

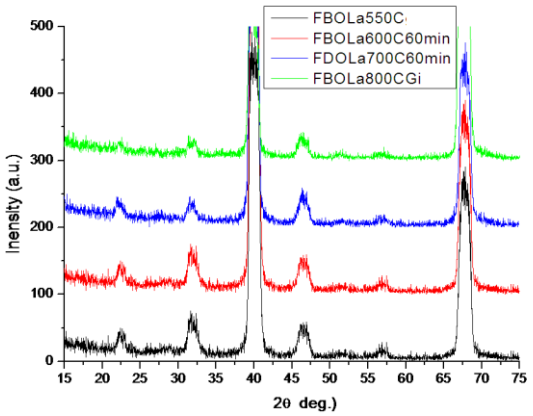

Figure 1- XRD of $Bi_{0,9}La_{0,1}FeO_3$ sol-gel films

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References

[1] S. Khakhomov, V. Gaishun, D. Kovalenko, A. Semchenko et. al., *Recent Advances in Technology Research and Education: Proceedings of the 17th International Conference on Global Research and Education Inter-Academia–2018*, **53,** 43-48 (2018).