

SPRINCEAN, Veaceslav; VATAVU, Elmira; DMITROGLO, Liliana, UNTILA, Dumitru, CARAMAN, Iuliana, CARAMAN, Mihail. The structure and chemical composition of Ga₂O₃ oxide prepared by annealing of Ga₂Se₃ crystals. In: *IFMBE Proceedings*. Ediția a 4-a, 18-21 septembrie 2019, Chișinău. Switzerland: Springer Nature Switzerland AG, 2020, pp. 207-211. ISBN 978-303031865-9.

The chemical composition and structure of Ga₂O₃ obtained by thermal treatment (TT) in air of β-Ga₂Se₃ crystals were studied using the X-ray diffraction (XRD) method, Raman spectroscopy, EDX, and SEM. The surface of the Ga₂Se₃ crystal air annealed at 770 K is covered by β-Ga₂O₃ layer of microcrystallites and as well as by β-Ga₂Se₃ crystallites. The oxygen is non-homogenously distributed on the surface of the 770 K annealed sample. The sample obtained by TT at 1150 K consists of nanolamella, nanotowers, and nanobars of β-Ga₂O₃, their size being estimated to 10–200 nm.