

Projekta Izp-2020/1-0345 rezultāti

Epitaksiālas Ga₂O₃ plānas kārtiņas kā platzonas topoloģiski caurspīdīgi elektrodi ultravioletai optoelektronikai

Oriģināli zinātniskie raksti, kas publicēti zinātniskos žurnālos, rakstu krājumos vai konferenču rakstu krājumos, kuri ir indeksēti datu bāzēs Web of Science Core Collection, SCOPUS vai ERIH PLUS

1. Khartsev, S.; Hammar, M.; Nordell, N.; Zolotarjovs, A.; Purans, J.; Hallén, A. Reverse-Bias Electroluminescence in Er-Doped β -Ga₂O₃ Schottky Barrier Diodes Manufactured by Pulsed Laser Deposition. - *Physica status solidi (a) – Applications and materials science*, 2021, <https://doi.org/10.1002/pssa.202100610>
2. Butanovs, R.; Dipane, L.; Zolotarjovs, A.; Vlassov, S.; Polyakov, B. Preparation of functional Ga₂S₃ and Ga₂Se₃ shells around Ga₂O₃ nanowires via sulfurization or selenization. - *Optical Materials*, 2022, <https://doi.org/10.1016/j.optmat.2022.112675>
3. Eglitis, R.; Piskunov, S.; Popov, A.I.; Purans, J.; Bocharov, D.; Jia, R. Systematic Trends in Hybrid-DFT Computations of BaTiO₃/SrTiO₃, PbTiO₃/SrTiO₃ and PbZrO₃/SrZrO₃ (001) Hetero Structures. - *Condensed Matter*, 2022, <https://doi.org/10.3390/condmat7040070>
4. Dimitrocenko, L.; Strikis, G.; Polyakov, B.; Bikse, L.; Oras, S.; Butanovs, E. The Effect of a Nucleation Layer on Morphology and Grain Size in MOCVD-Grown β -Ga₂O₃ Thin Films on C-Plane Sapphire. - *Materials*, 2022, <https://doi.org/10.3390/ma15238362>
5. Eglitis, R. I.; Bocharov, D.; Piskunov, S.; Jia, R. Review of First Principles Simulations of STO/BTO, STO/PTO, and SZO/PZO (001) Heterostructures. - *Crystals*, 2023, <https://doi.org/10.3390/cryst13050799>
6. Zachinskis, A.; Grechenkov, J.; Butanovs, E.; Platonenko, A.; Piskunov, S.; Popov, A.; Purans, J.; Bocharov, D. Ir impurities in α - and β -Ga₂O₃ and their detrimental effect on p-type conductivity. - *Scientific Reports*, 2023, <https://doi.org/10.1038/s41598-023-35112-9>
7. Eglitis, R.; Purans, J.; Popov, A.I.; Piskunov, S.; Jia, R.; Kruchinin, S.P. ABO₃ perovskite as well as BaF₂, SrF₂ and CaF₂ bulk and surface F-center first principles predictions. - *Modern Physics Letters B*, 2023, <https://doi.org/10.1142/S0217984923420046>