

## List of impacted publications used as part of dissertation:

1. F. Hájek, V. Jarý, T. Hubáček, F. Dominec, A. Hospodková, K. Kuldová, J. Oswald, J. Pangrác, T. Vaněk, M. Buryi, G. Ledoux, C. Dujardin  
Donor-Acceptor pairs recombination as the origin of the emission shift in InGaN/GaN scintillator heterostructures doped with Zn  
Radiation Measurements ?? (2023), ?? (*in process*)
2. A. Hospodková, J. Čížek, F. Hájek, T. Hubáček, J. Pangrác, F. Dominec, K. Kuldová, J. Batysta, M.O. Liedke, E. Hirschmann, M. Butterling, A. Wagner  
[Relation between Ga Vacancies, Photoluminescence, and Growth Conditions of MOVPE-Prepared GaN Layers](#)  
Materials 15 (2022) 6916(1) - 6916(13).
3. T. Vaněk, V. Jarý, T. Hubáček, F. Hájek, K. Kuldová, Z. Gedeonová, V. Babin, Z. Remeš, M. Buryi  
[Acceleration of the yellow band luminescence in GaN layers via Si and Ge doping](#)  
J. Alloy. Compd. 914 (2022) 165255
4. F. Hájek, A. Hospodková, T. Hubáček, J. Oswald, J. Pangrác, F. Dominec, R. Horešovský, K. Kuldová  
[Depth profile of acceptor concentration in InGaN/GaN multiple quantum wells](#)  
J. Lumin. 236 (2021) 118127(1) - 118127(5).
5. T. Vaněk, F. Hájek, F. Dominec, T. Hubáček, K. Kuldová, J. Pangrác, T. Košutová, P. Kejzlar, P. Bábtor, A. Lachowski, A. Hospodková  
[Luminescence redshift of thick InGaN/GaN heterostructures induced by the migration of surface adsorbed atoms](#)  
J. Cryst. Growth 565 (2021) 126151(1) - 126151(6).
6. A. Hospodková, F. Hájek, J. Pangrác, M. Slavická Zíková, T. Hubáček, K. Kuldová, J. Oswald, T. Vaněk, A. Vetushka, J. Čížek, M.O. Liedke, M. Butterling, A. Wagner  
[A secret luminescence killer in deepest QWs of InGaN/GaN multiple quantum well structures](#)  
J. Cryst. Growth 536 (2020) 125579(1) - 125579(6).

## List of other impacted publications with FNSPE affiliation:

7. M. Buryi, N. Neykova, K. Ridzoňová, Z. Remeš, K. Děcká, F. Hájek, A. Artemenko, J. Mičová, L. Landová, I. Jakubec  
[Peculiarities of erbium incorporation into ZnO microrods at high doping level leading to upconversion and the morphology change. Influence on excitonic as well as shallow donor states](#)  
Appl. Surf. Sci. 611 (2023) 155651(1) - 155651(14).
8. A. Hospodková, F. Hájek, T. Hubáček, Z. Gedeonová, P. Hubík, J.J. Mareš, J. Pangrác, F. Dominec, K. Kuldová, E. Hulicius  
[Electron mobility in GaN layers and HEMT structure optimized by MOVPE technological parameters](#)  
J. Cryst. Growth 605 (2023) 127061-1 - 127061-7.
9. T. Hubáček, K. Kuldová, Z. Gedeonová, F. Hájek, T. Košutová, S. Banerjee, P. Hubík, J. Pangrác, T. Vaněk, A. Hospodková  
[Impact of Ge doping on MOVPE grown InGaN layers](#)  
J. Cryst. Growth 604 (2023) 127043(1) - 127043(5).
10. M. Buryi, V. Babin, T. Hubáček, V. Jarý, F. Hájek, K. Kuldová, A. Artemenko, A. Hospodková

- [\*The influence of Si on the properties of MOVPE grown GaN thin films: Optical and EPR study\*](#)  
Radiat. Meas. 157 (2022) 106842
11. M. Buryi, V. Babin, T. Hubáček, V. Jarý, F. Hájek, K. Kuldová, Z. Remeš, A. Hospodková  
[\*Optical properties of epitaxially grown GaN:Ge thin films\*](#)  
Opt. Mater.: X 16 (2022) 100211(1) - 100211(6).
12. K. Děcká, J. Král, F. Hájek, P. Průša, V. Babin, E. Mihóková, and V. Čuba  
[\*Scintillation Response Enhancement in Nanocrystalline Lead Halide Perovskite Thin Films on Scintillating Wafers\*](#)  
Nanomaterials 12 (2022) 14-1 - 11. Materials 15 (2022) 6916(1) - 6916(13).
13. M. Buryi, T. Salamakha, V. Babin, J. Paterek, F. Hájek, Z. Remeš, L. Landová, E. Trusova, Y. Tratsiak  
[\*Stabilization of light emitting Eu<sup>2+</sup> centers inside Ca\(Sr\)I<sub>2</sub>:Eu particles in glass ceramics. The preliminary concept of synthesis\*](#)  
Ceram. Int. 47 (2021) 29232 - 29252.
14. F. Hájek, A. Hospodková, P. Hubík, Z. Gedeonová, T. Hubáček, J. Pangrác, K. Kuldová  
[\*Transport properties of AlGaIn/GaN HEMT structures with back barrier: impact of dislocation density and improved design\*](#)  
Semicond. Sci. Tech. 36 (2021) 075016(1) - 075016(9).

#### List of impacted publications without FNSPE affiliation:

1. V. Jarý, A. Hospodková, T. Hubáček, F. Hájek, K. Blažek, M. Nikl  
[\*Optical Properties of InGaIn/GaN Multiple Quantum Well Structures Grown on GaN and Sapphire Substrates\*](#)  
IEEE Trans. Nucl. Sci. 67 (2020) 974 - 977.
2. T. Hubáček, A. Hospodková, K. Kuldová, J. Oswald, J. Pangrác, V. Jarý, F. Dominec, M. Slavická Zíková, F. Hájek, E. Hulicius, A. Vetushka, G. Ledoux, Ch. Dujardin, M. Nikl  
[\*Advancement toward ultra-thick and bright InGaIn/GaN structures with a high number of QWs\*](#)  
CrystEngComm 21 (2019) 356 - 362.
3. T. Hubáček, A. Hospodková, J. Oswald, K. Kuldová, J. Pangrác, M. Zíková, F. Hájek, F. Dominec, N. Florini, Ph. Komninou, G. Ledoux, C. Dujardin  
[\*Strong suppression of In desorption from InGaIn QW by improved technology of upper InGaIn/GaN QW interface\*](#)  
J. Cryst. Growth 507 (2019) 310 - 315.
4. K. Rubešová, J. Havlíček, V. Jakeš, L. Nádherný, J. Cajzl, D. Pánek, T. Parkman, A. Beitlerova, R. Kučerková, F. Hájek, M. Nikl  
[\*Heavily Ce<sup>3+</sup>-doped Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub> thin films deposited by a polymer sol-gel method for fast scintillation detectors\*](#)  
CrystEngComm 21 (2019) 5115 - 5123.
5. M. Zíková, A. Hospodková, J. Pangrác, T. Hubáček, J. Oswald, K. Kuldová, F. Hájek, G. Ledoux, C. Dujardin  
[\*Influence of Si doping of GaN layers surrounding InGaIn quantum wells on structure photoluminescence properties\*](#)  
J. Cryst. Growth 506 (2019) 8 - 13.