

České vysoké učení technické v Praze  
Fakulta jaderná a fyzikálně inženýrská  
Katedra fyzikální elektroniky



## **Seznam publikací**

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# Seznam literatury související s dizertační prací

## články (s impaktem)

- M. Hývl, G. Nogay, P. Loper, F.-J. Haug, Q. Jeangros, A. Fejfar, C. Ballif, *et al.*, “Nanoscale study of the hole-selective passivating contacts with high thermal budget using c-afm tomography”, en, *ACS Applied Materials Interfaces*, vol. 13, no. 8, pp. 9994–10 000, Mar. 3, 2021, ISSN: 1944-8244, 1944-8252. DOI: 10.1021/acsami.0c21282.
- M. Müller\*, M. Hývl\*, M. Kratzer, C. Teichert, S. Misra, M. Foldyna, L. Yu, *et al.*, “Investigating inhomogeneous electronic properties of radial junction solar cells using correlative microscopy”, *Japanese Journal of Applied Physics*, vol. 54, no. 8S1, 08KA08, Aug. 1, 2015, ISSN: 0021-4922, 1347-4065. DOI: 10.7567/JJAP.54.08KA08.\*  
*\*First two authors contributed equally to this work*
- A. Fejfar, M. Hývl, A. Vetushka, P. Pikna, Z. Hájková, M. Ledinský, J. Kočka, *et al.*, “Correlative microscopy of radial junction nanowire solar cells using nanoincident position markers”, *Solar Energy Materials and Solar Cells*, EMRS 2014 Spring Meeting – Advanced materials and characterization techniques for solar cells II, vol. 135, pp. 106–112, Apr. 1, 2015, ISSN: 0927-0248. DOI: 10.1016/j.solmat.2014.10.027.
- G. Köppel, V. Preidel, S. Mangold, E. Rudigier-Voigt, M. Hývl, A. Fejfar, B. Rech, *et al.*, “Nanoimprint-textured Glass Superstrates for Light Trapping in Crystalline Silicon thin-film Solar Cells”, en, *Energy Procedia*, vol. 84, pp. 118–126, Dec. 2015, ISSN: 18766102. DOI: 10.1016/j.egypro.2015.12.304. [Online]. Available: <http://linkinghub.elsevier.com/retrieve/pii/S1876610215029690> (visited on 03/21/2017).
- J. K. Rath, C. Prastani, D. E. Nanu, M. Nanu, R. E. I. Schropp, A. Vetushka, M. Hývl, *et al.*, “Fabrication of SnS quantum dots for solar-cell applications: Issues of capping and doping”, en, *physica status solidi (b)*, vol. 251, no. 7, 2014, ISSN: 1521-3951. DOI: 10.1002/pssb.201350377. [Online]. Available: <https://onlinelibrary.wiley.com/doi/abs/10.1002/pssb.201350377> (visited on 03/15/2022).
- A. Fejfar, M. Hývl, M. Ledinský, A. Vetushka, J. Stuchlík, J. Kočka, S. Misra, *et al.*, “Microscopic measurements of variations in local (photo)electronic properties in nanostructured solar cells”, en, *Solar Energy Materials and Solar Cells*, Thin-film Photovoltaic Solar Cells, vol. 119, pp. 228–234, Dec. 2013, ISSN: 0927-0248. DOI: 10.1016/j.solmat.2013.07.042. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0927024813003887> (visited on 03/15/2022).

## Konference

- **M. Hývl**, G. Nogay, P. Loper, F.-J. Haug, Q. Jeangros, A. Fejfar, Ch. Ballif, *et al.*, *Mapping the Transport Paths in Silicon Passivating Contacts with Conductive AFM Tomography*, English, oral presentation, E-MRS Spring Meeting 2021, online, June 2021.
- **M. Hývl**, G. Nogay, P. Loper, A. Ingenito, M. Ledinský, Ch. Ballif, and A. Fejfar, *Nanoscale Study of the Hole-selective Passivating Contacts for High-Efficiency Silicon Solar Cells Using C-AFM Tomography*, English, oral presentation & poster\*, ICANS28, Palaiseau, France, August 2019.  
\*Awarded the Best Poster Award
- **M. Hývl**, M. Ledinský, and A. Fejfar, *Contact Force in C-AFM – Toward the Quantitative Results in Low-Force Regime*, English, oral presentation, SPM Workshop 2019, Lednice, Czech republic, March 2019.
- **M. Hývl**, M. Müller, M. Foldyna, P. R. i Cabarrocas, and A. Fejfar, *Application of Microscopy Methods for Characterization of Silicon Nanostructures*, English, oral presentation, ICN-T 2018, Brno, Czech republic, July 2018.
- **M. Hývl**, M. Müller, S. Misra, M. Foldyna, P. R. i Cabarrocas, and A. Fejfar, *Investigation of shunt propagation in radial junction solar cells with C-AFM*, English, oral presentation, SPM Workshop 2017, Lednice, Czech republic, March 2017.
- **M. Hývl**, M. Müller, M. Foldyna, P. R. i Cabarrocas, and A. Fejfar, *Application of Microscopy Methods for Characterization of Silicon Nanostructures*, English, oral presentation\*, ACEEES forum 2017, Tenerife, Spain, December 2017.  
\*Awarded the Best Presentation Award
- **M. Hývl**, M. Müller, A. Vetuško, A. Fejfar, S. Misra, and P. R. i Cabarrocas, *Correlative microscopy on radial junction solar cells based on silicon nanowires*, English, Poster, Microscopy 2016, CSMS, Lednice, Czech republic, March 2016.
- **M. Hývl**, M. Müller, A. Vetuško, M. Ledinský, S. Misra, M. Foldyna, L. Yu, *et al.*, *Correlative Microscopy on Radial Junction Solar Cells Based on Silicon Nanowires*, English, oral presentation, ACEEES forum 2015, Ka'anapali, Hawaii, USA, May 2015.

## seznam literatury nesouvisející s dizertační prací

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- **M. Hývl**, M. Müller, T.-H. Stuchlíková, J. Stuchlík, M. Šilhavík, J. Kočka, A. Fejfar, *et al.*, “Nucleation and growth of metal-catalyzed silicon nanowires under plasma”, en, *Nanotechnology*, vol. 31, no. 22, p. 225 601, Mar. 2020, publisher: IOP Publishing, ISSN: 0957-4484. DOI: 10.1088/1361-6528/ab76ef.

- J. Stránská-Matějová, A. Hospodková, T. Košutová, T. Hubáček, **M. Hývl**, and V. Holy, “V-pits formation in InGaN/GaN: Influence of threading dislocations and indium content”, *Journal of Physics D: Applied Physics*, 2022. [Online]. Available: <http://iopscience.iop.org/article/10.1088/1361-6463/ac5c1a>.
- A. Hospodková, T. Hubáček, J. Oswald, J. Pangrác, K. Kuldová, **M. Hývl**, F. Dominec, *et al.*, “InGaN/GaN Structures: Effect of the Quantum Well Number on the Cathodoluminescent Properties”, en, *physica status solidi (b)*, vol. 255, no. 5, p. 1700464, 2018, \_eprint: <https://onlinelibrary.wiley.com/doi/pdf/10.1002/pssb.201700464>, ISSN: 1521-3951. DOI: 10.1002/pssb.201700464. [Online]. Available: <https://onlinelibrary.wiley.com/doi/abs/10.1002/pssb.201700464> (visited on 03/15/2022).

### články (s review)

- T. Martínek, J. Kudělka, M. Navrátil, V. Křesálek, A. Fejfar, **M. Hývl**, and J. Sobota, “Nanoscale characterization of ultra-thin tungsten films deposited by radio-frequency magnetron sputtering”, in *2015 IEEE 15th International Conference on Nanotechnology (IEEE-NANO)*, Jul. 2015, pp. 510–513. DOI: 10.1109/NANO.2015.7388651.