

## Indicatori de rezultat pentru proiectul PCE 50/2021

- **Articole publicate în reviste indexate ISI:**

1. G. Velișa, E. Zarkadoula, D. Iancu, M.D. Mihai, C. Grygiel, I. Monnet, B. Kombaiah, Y. Zhang, W.J. Weber, **Near-surface modification of defective  $\text{KTaO}_3$  by ionizing ion irradiation**, *J. Phys. D: Appl. Phys.* 54 (2021) 375302 (13pp). <https://doi.org/10.1088/1361-6463/ac0b11>. IF = 3.207
2. G. Velișa, R.F. Andrei, I. Burducea, A. Enciu, D. Iancu, D.A. Mirea, A. Spiridon, M. Straticiuc, **Joint research activities at the 3 MV Tandetron™ from IFIN-HH**, *Eur. Phys. J. Plus* 136 (2021) 1171. <https://doi.org/10.1140/epjp/s13360-021-02156-7>. IF = 3.911
3. I. Burducea, G. Velișa, M. Straticiuc, D.G. Ghita, **14<sup>th</sup> European conference on accelerators in applied research and technology**, *Nucl. Instr. Meth. B* 541 (2023) 314–321. . IF = 1.3. <https://doi.org/10.1016/j.nimb.2023.05.069>
4. M.D. Mihai, D. Iancu, E. Zarkadoula, R.A. Florin, Y. Tong, Y. Zhang, W.J. Weber, G. Velișa, **Athermal annealing of pre-existing defects in crystalline silicon**, *Acta Materialia* 261 (2023) 119379. IF = 9.4 <https://doi.org/10.1016/j.actamat.2023.119379>
5. D. Iancu, E. Zarkadoula, M.D. Mihai, C. Burducea, I. Burducea, M. Straticiuc, Y. Zhang, W. J. Weber, G. Velișa, Revealing two-stage phase transition process in defective  $\text{KTaO}_3$  under inelastic interactions, *Scr. Mater.* 222 (2023) 11503. <https://doi.org/10.1016/j.scriptamat.2022.115032>  
IF = 6.3

În total, cele 5 articole ISI au un factor de impact cumulat de 24.11.

- **Articole în curs de elaborare:**

G. Velișa, et al., **Precursory stage of damage production before the onset of damage annealing process in defective  $\text{KTaO}_3$  under intermediate energy ion irradiation**, va fi trimis către Acta Materialia IF = 9.4

- **Participări conferințe internaționale:**

1. G. Velișa, E. Zarkadoula, D. Iancu, M.D. Mihai, C. Grygiel, I. Monnet, B. Kombaiah, Y. Zhang, W. J. Weber, **Response of defective  $\text{KTaO}_3$  to ionizing ion irradiation (prezentare orală)**, *Applied Nuclear Physics Conference* 2021. [https://www.anpc2021.cz/AMCA-ANPC2020/media/system/program/ANPC-program\\_FINAL.pdf](https://www.anpc2021.cz/AMCA-ANPC2020/media/system/program/ANPC-program_FINAL.pdf)
2. G. Velișa, D. Iancu, E. Zarkadoula, M.-D. Mihai, Y. Zhang, W.J. Weber, **Revealing the onset of unprecedented transition from synergistic to competitive effect in defective  $\text{KTaO}_3$  (prezentare orală)**, *22<sup>nd</sup> INTERNATIONAL CONFERENCE ON ION BEAM MODIFICATION OF MATERIALS Lisbon, 10 – 15 July 2022*. [http://www.ctn.tecnico.ulisboa.pt/IBMM-2022/BOOK%20OF%20ABSTRACTS%20-%20IBMM2022\\_FINALv2.pdf](http://www.ctn.tecnico.ulisboa.pt/IBMM-2022/BOOK%20OF%20ABSTRACTS%20-%20IBMM2022_FINALv2.pdf)
3. M.-D. Mihai, D. Iancu, C. Burducea, I. Burducea, M. Straticiuc, E. Zarkadoula, Y. Zhang, W.J. Weber, G. Velișa, **Ionization-induced transition from synergistic to competitive effect in defective  $\text{KTaO}_3$  (prezentare orală)**, *14<sup>th</sup> European Conference on Accelerators in Applied Research and Technology (ECAART14)* will be held between 17th and 23rd of July, 2022 in Sibiu, Romania. <https://indico.nipne.ro/event/160/timetable/#20220721>
4. G. Velișa, D. Iancu, E. Zarkadoula, M.-D. Mihai, Y. Zhang, W.J. Weber, **Response of defective  $\text{KTaO}_3$  to inelastic interactions of ions**, *26<sup>th</sup> International Conference on the Application of Accelerators in Research & Industry and 53<sup>rd</sup> Symposium of Northeastern Accelerator Personnel, October 30 to November 3, 2022 Hilton Embassy Suites in Denton, Texas, USA (lectie invitată)*. <https://caari-sneap.com/sites/caari-sneap.com/files/document/caari-sneap-2022-v221030c.pdf>

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5. **G. Velisa**, et al., **Comparison of synergistic and competitive effects in defective  $\text{KTaO}_3$  (invited talk)**, *21<sup>st</sup> International Conference on Radiation Effects in Insulators*, September 1-9 2023, Fukuoka, Japonia. <https://rei21.kyushu-u.ac.jp/speakers.html>
6. **G. Velisa**, et al., **Radiation effects studies at the 3 MV Tandetron of IFIN-HH (invited talk)**, *International Symposium on Advanced Materials for Extreme Environments*, August 18-22 2023, Beijing, China.
7. **D. Iancu**, et al., **Sequential dual ion beam irradiation effects on  $\text{KTaO}_3$  (poster)**, *International Conference on Radiation Applications, International Symposium on Advanced Materials for Extreme Environments*, April 28 to May 2 2023, Anavyssos, Grecia.