

Subdivision 9, Publications 2018 – 2020

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Articles in journals

- 1)* García-Valenzuela, A., **Fakhfouri, A.**, Oliva-Ramírez, M., Rico-Gavira, V., Rojas, T.C., Alvarez, R., **Menzel, S.B.**, Palmero, A., **Winkler, A.**, González-Elipé, A.R., Patterning and control of the nanostructure in plasma thin films with acoustic waves: mechanical vs. electrical polarization effects, *Materials Horizons* 2 8 (2021), S. 515-524
<https://pubs.rsc.org/en/content/articlelanding/2021/mh/d0mh01540g#!divAbstract>.
- 2) Smirnova, E.P., Sotnikova, G.Yu., Zaitseva, N.V., Senkevich, S.V., **Sotnikov, A.V.**, Gavrilov, G.A., Electrocaloric multilayer capacitors on the base of lead magnesium niobate–lead scandium niobate, *Journal of Applied Physics* 10 128 (2020), S. 104106/1-8
<https://aip.scitation.org/doi/10.1063/5.0006211>.
- 3) **Weser, R.**, Darinskii, A.N., **Schmidt, H.**, Polarization manipulation of surface acoustic waves by metallization patterns on a piezoelectric substrate, *Applied Physics Letters* 14 117 (2020), S. 143502/1-5 <https://aip.scitation.org/doi/10.1063/5.0015292>.
- 4) **Park, E.**, **Seifert, M.**, **Rane, G.K.**, **Menzel, S.**, **Gemming, T.**, **Niensch, K.**, Stress and Microstructure Evolution in Mo Thin Films without or with Cover Layers during Thermal-Cycling, *Materials* 18 13 (2020), S. 3926/1-10 <https://doi.org/10.3390/ma13183926>.
- 5) **Roudini, M.**, Niedermeier, D., Stratmann, F., **Winkler, A.**, Droplet Generation in Standing-Surface-Acoustic-Wave Nebulization at Controlled Air Humidity, *Physical Review Applied* 1 14 (2020), S. 014071/1-11 <https://doi.org/10.1103/PhysRevApplied.14.014071>.
- 6) **Oswald, S.**, **Lattner, E.**, **Seifert, M.**, XPS chemical state analysis of sputter depth profiling measurements for annealed TiAl-SiO₂ and TiAl-W layer stacks, *Surface and Interface Analysis* (2020), S. 924-928 <https://onlinelibrary.wiley.com/doi/full/10.1002/sia.6820>.
- 7) **Seifert, M.**, **Lattner, E.**, **Menzel, S.**, **Oswald, S.**, **Gemming, T.**, Phase Formation and High-Temperature Stability of Very Thin Co-Sputtered Ti-Al and Multilayered Ti/Al Films on Thermally Oxidized Si Substrates, *Materials* 9 13 (2020), S. 2039/1-11
<https://doi.org/10.3390/ma13092039>.
- 8) **Weser, R.**, **Winkler, A.**, Weihnacht, M., **Menzel, S.**, **Schmidt, H.**, The complexity of surface acoustic wave fields used for microfluidic applications, *Ultrasonics* 106 (2020), S. 106160/1-12 <https://doi.org/10.1016/j.ultras.2020.106160>.
- 9) Gavrilov, G., Sotnikova, G., **Sotnikov, A.**, Smirnova, E., Interrelation of electrocaloric and concomitant effects in lead magnesium niobate based ceramics, *Journal of Materials Science* 55 (2020), S. 6783–6793 <https://doi.org/10.1007/s10853-020-04504-x>.
- 10) **Seifert, M.**, High Temperature Behavior of RuAl Thin Films on Piezoelectric CTGS and LGS Substrates, *Materials* 7 13 (2020), S. 1605/1-20 <https://doi.org/10.3390/ma13071605>.
- 11) O'Rorke, R., **Winkler, A.**, Collins, D., Ai, Y., Slowness curve surface acoustic wave transducers for optimized acoustic streaming, *RSC Advances* 20 10 (2020), S. 11582-11589 <https://doi.org/10.1039/C9RA10452F>.
- 12) **Weser, R.**, Darinskii, A., Weihnacht, M., **Schmidt, H.**, Experimental and numerical investigations of mechanical displacements in surface acoustic wave bounded beams, *Ultrasonics* 106 (2020), S. 106077/1-10 <https://doi.org/10.1016/j.ultras.2020.106077>.
- 13) Suhak, Y., Johnson, W.L., **Sotnikov, A.**, **Schmidt, H.**, Fritze, H., Transport and Electromechanical Properties of Ca₃TaGa₃Si₂O₁₄ Piezoelectric Crystals at Extreme Temperatures, *MRS Advances* 9 4 (2019), S. 515-521
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- 14) Hayes, P., Jovičević Klug, M., Toxværd, S., Durdaut, P., Schell, V., Teplyuk, A., Burdin, D., **Winkler, A., Weser, R.**, Fetisov, Y., Höft, M., Knöchel, R., McCord, J., Quandt, E., Converse Magnetolectric Composite Resonator for Sensing Small Magnetic Fields, *Scientific Reports* 9 (2019), S. 16355/1-10 <https://doi.org/10.1038/s41598-019-52657-w>.
- 15) **Richard, C., Fakhfouri, A., Colditz, M., Striggow, F.**, Kronstein-Wiedemann, R., Tonn, T., **Medina Sanchez, M., Schmidt, O.G., Gemming, T., Winkler, A.**, Blood platelet enrichment in mass-producible surface acoustic wave (SAW) driven microfluidic chips, *Lab on a chip* 24 19 (2019), S. 4043-4051 <https://pubs.rsc.org/en/content/articlelanding/2019/LC/C9LC00804G#!divAbstract>.
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- 17) **Seifert, M., Brachmann, E., Rane, G., Menzel, S., Oswald, S., Gemming, T.**, Pt-RuAl bilayers as a model system for Pt wire bonding of high-temperature RuAl electrodes, *Journal of Alloys and Compounds* 813 (2020), S. 152107/1-8 <https://www.sciencedirect.com/science/article/abs/pii/S0925838819333535?via%3Dihub>.
- 18) **Menzel, S.B., Seifert, M., Priyadarshi, A., Rane, G.K., Park, E., Oswald, S., Gemming, T.**, Mo-La₂O₃ Multilayer Metallization Systems for High Temperature Surface Acoustic Wave Sensor Devices, *Materials* 17 12 (2019), S. 2651/1-15 <https://www.mdpi.com/1996-1944/12/17/2651>.
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- 23) Weiss, Z., Pickering, J.C., **Hoffmann, V.**, Obituary Prof. Edward B. M. Steers (1931-2018), *Spectrochimica Acta Part B: Atomic Spectroscopy* 149 (2018), S. 241-242 <https://doi.org/10.1016/j.sab.2018.08.014>.
- 24) Weiss, Z., Pickering, J.C., **Hoffmann, V.**, Sixty years of spectroscopic research: a tribute to Professor Edward B. M. Steers, *Chemical Papers* 12 73 (2019), S. 2891-2896 <https://doi.org/10.1007/s11696-018-0635-z>.
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- 27) **Seifert, M., Rane, G.K., Menzel, S., Oswald, S., Gemming, T.**, Improving the oxidation resistance of RuAl thin films with Al₂O₃ or SiO₂ cover layers, *Journal of Alloys and Compounds* 776 (2019), S. 819-825 <https://doi.org/10.1016/j.jallcom.2018.10.278>.
- 28) **Parsi Sreenivas, V.V., Winkler, A., Harazim, S., Schmidt, O.G.**, Ultraviolet transmittance of SU-8 photoresist and importance in multi-wavelength photolithography, *Journal of Vacuum Science and Technology B* 5 36 (2018), S. 051601/1-5 <https://doi.org/10.1116/1.5033996>.
- 29) **Brachmann, E., Seifert, M., Ernst, D., Menzel, S., Gemming, T.**, Pt-wire bonding optimization for electroplated Pt films on γ -Al₂O₃ for high temperature and harsh environment applications, *Sensors and Actuators A: Physical* 284 (2018), S. 129-134 <https://doi.org/10.1016/j.sna.2018.10.023>.
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- 35) Darinskii, A.N., Weihnacht, M., **Schmidt, H.**, Surface acoustic wave electric field effect on acoustic streaming: Numerical analysis, *Journal of Applied Physics* 123 (2018), S. 014902/1-8 <https://doi.org/10.1063/1.5005849>.
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Individual contributions to edited volumes

- 1) **Roudini, M.**, Niedermeier, D., Stratmann, F., **Winkler, A.**, Droplet generation from standing surface acoustic wave (sSAW) stabilized fluidic micropattern, *Physical Review Applied* (2020).
- 2) **Weser, R.**, Darinskii, A.N., **Schmidt, H.**, Polarization conversion of surface acoustic waves for enhanced microscale actuation applications, R. Weser, A. Darinskii and H. Schmidt: Polarization conversion of surface acoustic waves for enhanced microscale actuation

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- 4) **Biryukov, S., Sotnikov, A., Schmidt, H.,** SAW based tube rotation with wireless power transfer (2018).
- 5) **Weser, R., Sotnikov, A., Schmidt, H.,** Advanced characterization of surface acoustic wave fields at high temperature (2018).

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