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Publications and patents

Last update 5 April 2023

Publications

86. **Antiferromagnetic spin canting and magnetoelectric multipoles in h-$YMnO_3$**
M. Ramakrishnan, Y. Joly, Q. N. Meier, M. Fechner, M. Porer, S. Parchenko, Y. W. Windsor, E. M. Bothschafter, F. Lichtenberg, and U. Staub
Physical Review Research **5**, 013203 (1 - 9) (2023)
https://doi.org/10.1103/PhysRevResearch.5.013203

85. **Excitonic quenching of the oxygen-chain phonon in the photoinduced metal-to-insulator transition of photoexcited $Sr_{0.95}NbO_{3.37}$ studied by ultraviolet-resonance Raman scattering**
Sören Buchenau, Florian Biebl, Benjamin Grimm-Lebsanft, Philipp Lenzen, Teguh C. Asmara, Andrivo Rusydi, Frank Lichtenberg, and Michael Rübhausen
Physical Review B **107**, 035149 (1 - 5) (2023)
https://doi.org/10.1103/PhysRevB.107.035149

84. **Presentation about a special type of electric motor which was build by third semester students of materials science during a project-based pacticum in fall semester 2022 at the ETH Zurich**
Melody Greminger, Charlotte Kalbermatten, Alessandro Marton, Laura Sironi, Ronja Wyss, Thomas Schweizer, Martin Willeke, Frank Lichtenberg, Christoph Dräyer, Christoph Maier, Maxim Vovk, Karim Bingöl, and Sascha Pucillo
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https://ethz.ch/content/dam/ethz/special-interest/matl/materials-theory-dam/documents/Praktikum-P2-III_HS-2022_Keppe-Motor-Projekt_Praesentation-von-Gruppe1.ppsx

83. **Webpage at the ETH Zurich about teaching for a project-based practicum and presentations from third semester students of materials science about the creation and study of a special type of electric motor:** https://theory.mat.ethz.ch/lab/teaching-for-a-project-based-practicum-and-a-presentation-from-s.html

82. **Melt-grown synthesis of oxide materials by the floating zone method: Presentation of a custom-made data and image recording, processing, and visualization system for a Cyberstar mirror furnace**
Frank Lichtenberg, Nicolas Guyon, Ahmed Nouri, Florian Seywert, Murielle Lescure, and Eusebio Barcelo
Published in July 2021 by the library of the ETH Zurich / ETH Research Collection
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81. **Photoinduced metastable *dd*-exciton-driven metal-insulator transitions in quasi-one-dimensional transition metal oxides**
Teguh Citra Asmara, Frank Lichtenberg, Florian Biebl, Tao Zhu, Pranab Kumar Das, Muhammad Avicenna Naradipa, Angga Dito Fauzi, Caozheng Diao, Ping Yang, Philipp Lenzen, Sören Buchenau, Benjamin Grimm-Lebsanft, Dongyang Wan, Paolo E. Trevisanutto, Mark B. H. Breese, T. Venkatesan, Michael Rübhausen, Andrivo Rusydi
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80. **Carpy-Galy phases $A_nB_nO_{3n+2}$ = ABO_x : Overview, properties, special and hypothetical systems, and melt-grown synthesis of *A*- and O-deficient *n* = 5 types such as $Sr_{19}Nb_{19}WO_{66}$ and $Sr_{17}Ca_2Nb_{19}WO_{64}$ and *n* = 6 type $Ln_6Ti_4Fe_2O_{20}$ and $Ca_6Nb_5FeO_{20}$**
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79. **Synthesis of melt-grown hexagonal $YMnO_3$, $YMn_{0.95}O_{2.93}$, $YMnO_{3+y}$, and $DyMnO_{3-\delta}$ and study of their properties by powder x-ray diffraction, piezoresponse force microscopy, a SQUID magnetometer, and thermogravimetry**
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Chunlin Chen, Deqiang Yin, Kazutoshi Inoue, Frank Lichtenberg, Xiuliang Ma, Yuichi Ikuhara, Johannes Georg Bednorz
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