

Tobias Beirau

List of Publications by Year in descending order

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20
papers

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1307594

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101
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| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Structural anisotropy and annealing-induced nanoscale atomic rearrangements in metamict titanite. <i>American Mineralogist</i> , 2012, 97, 1354-1365. | 1.9 | 17 |
| 2 | Thermal annealing of natural, radiation-damaged pyrochlore. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2017, 232, 25-38. | 0.8 | 17 |
| 3 | Maximization of the reuse of industrial residues for the production of eco-friendly CSA-belite clinker. <i>Construction and Building Materials</i> , 2019, 208, 250-257. | 7.2 | 16 |
| 4 | Anisotropic mechanical properties of zircon and the effect of radiation damage. <i>Physics and Chemistry of Minerals</i> , 2016, 43, 627-638. | 0.8 | 14 |
| 5 | Mechanical and structural properties of radiation-damaged allanite-(Ce) and the effects of thermal annealing. <i>Physics and Chemistry of Minerals</i> , 2019, 46, 921-933. | 0.8 | 11 |
| 6 | Mechanical properties of natural radiation-damaged titanite and temperature-induced structural reorganization: A nanoindentation and Raman spectroscopic study. <i>American Mineralogist</i> , 2016, 101, 399-406. | 1.9 | 10 |
| 7 | Radiation-damage-induced transitions in zircon: Percolation theory applied to hardness and elastic moduli as a function of density. <i>Applied Physics Letters</i> , 2018, 112, . | 3.3 | 9 |
| 8 | Radiation-damage in multi-layered zircon: Mechanical properties. <i>Applied Physics Letters</i> , 2019, 115, . | 3.3 | 7 |
| 9 | Modelling the effect of intrinsic radiation damage on mechanical properties: The crystalline-to-amorphous transition in zircon. <i>Scripta Materialia</i> , 2021, 197, 113789. | 5.2 | 7 |
| 10 | Mechanical and structural response of radiation-damaged pyrochlore to thermal annealing. <i>Materialia</i> , 2020, 14, 100950. | 2.7 | 6 |
| 11 | Nano-indentation and avalanches in compressed porous SiO ₂ . <i>Applied Physics Letters</i> , 2019, 115, 071902. | 3.3 | 5 |
| 12 | Avalanches during recrystallization in radiation-damaged pyrochlore and allanite: Statistical similarity to phase transitions in functional materials. <i>Applied Physics Letters</i> , 2019, 115, . | 3.3 | 5 |
| 13 | Percolation transitions in pyrochlore: Radiation-damage and thermally induced structural reorganization. <i>Applied Physics Letters</i> , 2021, 119, . | 3.3 | 4 |
| 14 | Locally preserved ± 2 phase transition in natural radiation-damaged titanite (CaTiSiO ₅): evidence from laser-induced photoluminescence and dielectric measurements. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 035403. | 1.8 | 3 |
| 15 | Radiation-induced effects on the mechanical properties of natural ZrSiO ₄ : double cascade-overlap damage accumulation. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 435-442. | 0.8 | 3 |
| 16 | Fracture toughness of radiation-damaged zircon studied by nanoindentation pillar-splitting. <i>Applied Physics Letters</i> , 2021, 119, . | 3.3 | 3 |
| 17 | Iron sites in radiation-damaged allanite-(Ce): the effects of thermally induced oxidation and structural reorganization. <i>Hyperfine Interactions</i> , 2020, 241, 1. | 0.5 | 1 |
| 18 | Partially disordered pyrochlore: time-temperature dependence of recrystallization and dehydration. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2022, . | 0.8 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | High-temperature resonant ultrasound spectroscopy of highly radiation-damaged pyrochlore: Structural reorganization and high acoustic loss. <i>Applied Physics Letters</i> , 2022, 120, 231901. | 3.3 | 0 |
| 20 | A modeling approach to predict the mechanical response of materials to irradiation damage from external sources: Nanoindentation of Pb-implanted ZrSiO ₄ . <i>Materialia</i> , 2022, 24, 101506. | 2.7 | 0 |