Graphical Synopsis

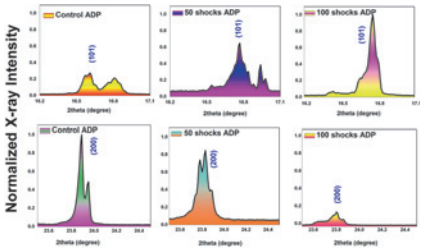
Inorganic Crystal Structures

Sivakumar Aswathappa, Arumugam Saranraj, Sahaya Jude Dhas Sathiyadhas, Kondaviti Showrilu and Martin Britto Dhas Sathiyadhas Amalapushpam

Phase stability analysis of shocked ammonium dihydrogen phosphate by X-ray and Raman scattering studies

https://doi.org/10.1515/zkri-2020-0072
Z. Kristallogr. 2021; 236(1–2): 1–10

Synopsis: Using X-ray diffraction and Raman scattering studies, we have evaluated the structural properties of ammonium dihydrogen phosphate (ADP) polycrystals after shock wave treatment. Interestingly, prismatic face shows the loss of degree of crystallinity whereas pyramidal face shows enhancement of crystalline nature with respect to number of shock pulses.

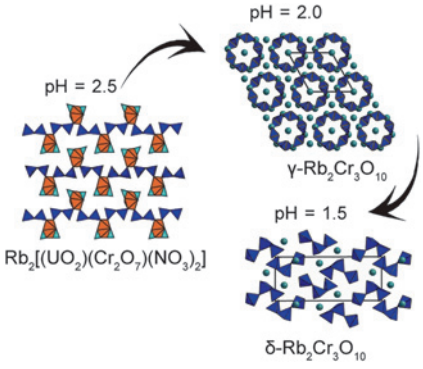


Evgeny V. Nazarchuk, Oleg I. Siidra, Dmitry O. Charkin, Stepan N. Kalmykov and Elena L. Kotova

Effect of solution acidity on the crystallization of polychromates in uranyl-bearing systems: synthesis and crystal structures of $Rb_2[(UO_2)(Cr_2O_7)(NO_3)_2]$ and two new polymorphs of $Rb_2Cr_3O_{10}$

https://doi.org/10.1515/zkri-2020-0078
Z. Kristallogr. 2021; 236(1–2): 11–21

Synopsis: Three new rubidium polychromates, $Rb_2[(UO_2)(Cr_2O_7)(NO_3)_2]$, γ-$Rb_2Cr_3O_{10}$, and δ-$Rb_2Cr_3O_{10}$ were prepared by combination of hydrothermal treatment at 220 °C and evaporation of aqueous solutions. Effect of solution acidity on the crystallization of polychromates in uranyl-bearing systems is discussed.

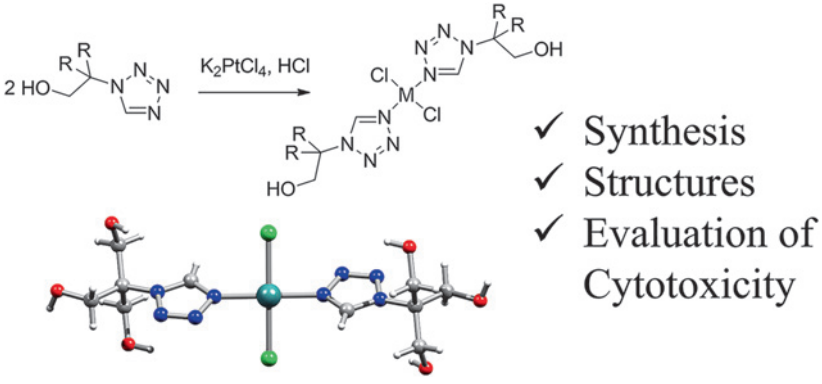


Organic and Metalorganic Crystal Structures

Tatiyana V. Serebryanskaya, Alexander S. Lyakhov, Ludmila S. Ivashkevich, Yuri V. Grigoriev, Andreii S. Kritchenkov, Victor N. Khrustalev, Alexander G. Tskhovrebov and Oleg A. Ivashkevich

Novel tetrazole Pt^{II} and Pd^{II} complexes with enhanced water solubility: synthesis, structural characterization and evaluation of antiproliferative activity

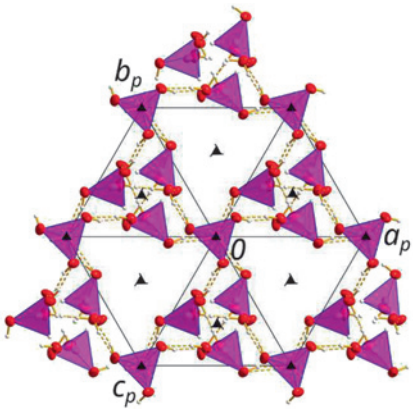
https://doi.org/10.1515/zkri-2020-0082
Z. Kristallogr. 2021; 236(1–2): 23–32



Matthias Kogler and Berthold Stöger
Hydrogen-bonding in mono-, di- and tetramethylammonium dihydrogenphosphites

https://doi.org/10.1515/zkri-2020-0088
Z. Kristallogr. 2021; 236(1–2): 33–41

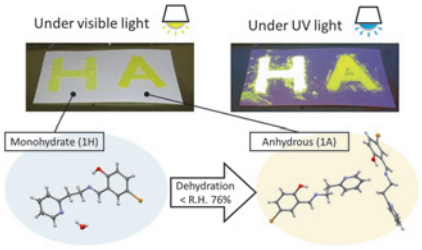
Synopsis: The order-disorder phase transition of a hydrogen-bonded structure is analyzed using undirected and directed voltage graphs.



Haruki Sugiyama
Photophysical property change of *N*-(5-bromo-salicylidene)-3-aminoethylpyridine monohydrated crystals via dehydration phase transition

https://doi.org/10.1515/zkri-2020-0091
Z. Kristallogr. 2021; 236(1–2): 43–50

Synopsis: A novel photochromic organic compound, *N*-(5-bromo-salicylidene)-3-aminoethylpyridine was synthesised and obtained as a monohydrated crystal **(1H)**. **1H** was dehydrated to form the anhydrous crystal **(1A)** at a relative humidity of less than 76%. The photochromic properties were activated and the quantum yield of fluorescence decreased significantly through the dehydration phase transition.



Formulae Index