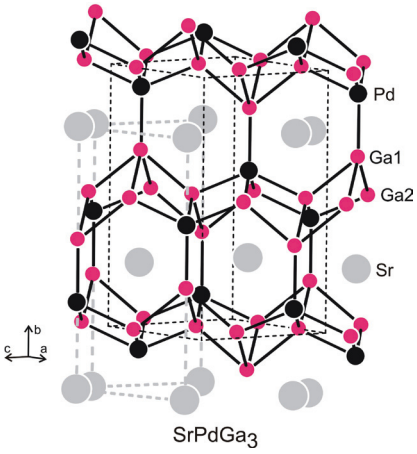
Graphical Synopsis

Inorganic Crystal Structures

Stefan Seidel, Rolf-Dieter Hoffmann and Rainer Pöttgen
$SrPdGa_3$ – An orthorhombic superstructure of the $ThCr_2Si_2$ type

DOI 10.1515/zkri-2014-1742
Z. Kristallogr. 2014; 229(6): 421–426

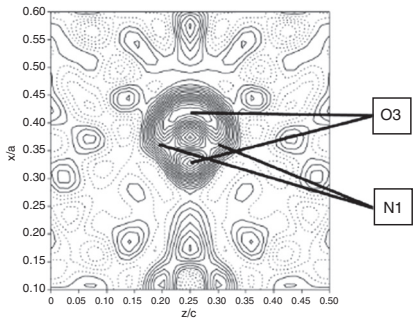
Synopsis: $SrPdGa_3$ is a new ternary ordering variant of the aristotype $BaAl_4$ / $ThCr_2Si_2$. The structural relation with $ThCr_2Si_2$ and the closely related silicide $BaNi_2Si_2$ is discussed on the basis of a group-subgroup relation.



Alexander Schmidt, Hans Boysen, Anatoliy Senyshyn and Martin Lerch
New findings on N-mayenite and a new kind of anion substituted mayenite: $Ca_{12}Al_{14}O_{32}(NO_2)_2$

DOI 10.1515/zkri-2013-1720
Z. Kristallogr. 2014; 229(6): 427–434

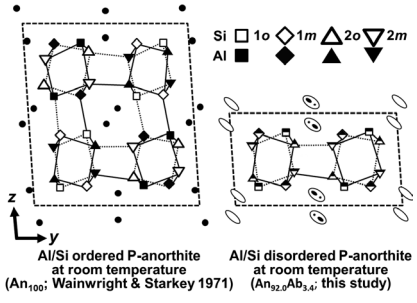
Synopsis: In this study we present two new anion-substituted mayenite-type phases: NO_2-mayenite and N-mayenite containing hydrazide ions. The new phases were investigated by means of neutron powder diffraction.



Takuya Echigo, Mihoko Hoshino, Mitsuyoshi Kimata, Masahiro Shimizu, Tomoaki Matsui and Norimasa Nishida
Single crystal X-ray and electron microprobe study of Al/Si-disordered anorthite with low content of albite

DOI 10.1515/zkri-2013-1713
Z. Kristallogr. 2014; 229(6): 435–449

Synopsis: The first natural crystal of Al/Si disordered anorthite ($An_{92.0}Ab_{3.4}$) was studied by single-crystal XRD and EMPA-WDS. Analytical results suggest that this Al/Si disordered anorthite is a metastable phase and the observed chemical non-stoichiometry may stabilize its metastable structure.

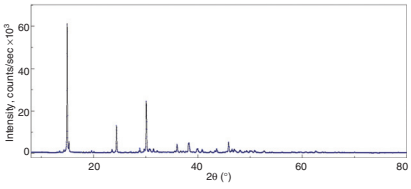


Soumen Ghosh, Abir Bhattacharya, Paramita Chatterjee and Alok Kumar Mukherjee

Structural and microstructural chracterization of seven human kidney stones using FTIR spectroscopy, SEM, thermal study and X-ray Rietveld analysis

DOI 10.1515/zkri-2014-1725
Z. Kristallogr. 2014; 229(6): 451–458

Synopsis: Structural and micorstructural characterization of seven human kidney stones has been reported. Quantitative phase analysis using the Rietveld method indicates that the major constituent is whewellite (in five stones) and anhydrous uric acid (in two stones) with minor amounts of weddellite and ammonium acid urate.



Organic and Metalorganic Crystal Structures

Núbia Boechat, Luiz C.S. Pinheiro, Angelo C. Pinto, Thiago S. Silva, James L. Wardell and Solange M.S.V. Wardell

Crystal structures of two anhydrous and one hydrated 7-(arylamino)-5-methyl-2-(trifluoromethyl)-[1,2,4]-triazolo-[1,5-a]pyrimidine derivatives

DOI 10.1515/zkri-2014-1740
Z. Kristallogr. 2014; 229(6): 459–471

Synopsis: While in both 7-(arylamino)-5-H_3Cl-2-F_3C-[1,2,4]-triazolo-[1,5-*a*]pyrimidines (**1a**: aryl = 3,5-dichlorophenyl; **1b**: aryl = 2,4-dichlorophenyl), the strongest intermolecular interactions are N—H···N hydrogen bonds, different acceptor atoms are involved.