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_chemical_name_common ?
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_chemical_formula_sum
'Al2 K1.97 O8 Si2'
_chemical_formula_weight 315.17

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_atom_type_symbol
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_atom_type_scatter_dispersion_real
_atom_type_scatter_dispersion_imag
_atom_type_scatter_source
'O' 'O' 0.0106 0.0060
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
'Al' 'Al' 0.0645 0.0514
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
'Si' 'Si' 0.0817 0.0704
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
'K' 'K' 0.2009 0.2494
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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_symmetry_space_group_name_H-M ?

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'y, x, z+1/2'
'-x+y, -x, z'
'-x, -x+y, z+1/2'
'x-y, -y, z+1/2'

_cell_length_a 5.1694(13)
_cell_length_b 5.1694(13)
_cell_length_c 8.714(2)
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_cell_angle_beta 90.00
_cell_angle_gamma 120.00
_cell_volume 201.66(9)
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 _exptl_crystal_density_method 'not measured'
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 _diffrn_reflns_limit_k_max 8
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 _computing_cell_refinement ?
 _computing_data_reduction ?

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_computing_structure_refinement 'SHELXL-97 (Sheldrick, 1997)'
_computing_molecular_graphics   ?
_computing_publication_material ?

_refine_special_details
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Refinement of F2 against ALL reflections. The weighted R-factor wR and
goodness of fit S are based on F2, conventional R-factors R are based
on F, with F set to zero for negative F2. The threshold expression of
F2 > 2sigma(F2) is used only for calculating R-factors(gt) etc. and is
not relevant to the choice of reflections for refinement. R-factors based
on F2 are statistically about twice as large as those based on F, and R-
factors based on ALL data will be even larger.
;

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_refine_ls_matrix_type          full
_refine_ls_weighting_scheme      calc
_refine_ls_weighting_details
'calc w=1/[sigma^2(Fo^2)+(0.0150P)^2+1.0000P] where P=(Fo^2+2Fc^2)/3'
_atom_sites_solution_primary     direct
_atom_sites_solution_secondary   difmap
_atom_sites_solution_hydrogens   geom
_refine_ls_hydrogen_treatment    mixed
_refine_ls_extinction_method      SHELXL
_refine_ls_extinction_coef        0.023(10)
_refine_ls_extinction_expression
'Fc^*=kFc[1+0.001xFc^2/l^3/sin(2\q)]^-1/4'
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'Flack H D (1983), Acta Cryst. A39, 876-881'
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_refine_ls_number_parameters      16
_refine_ls_number_restraints      8
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_refine_ls_wR_factor_gt           0.0966
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_refine_ls_restrained_S_all       1.060
_refine_ls_shift/su_max           0.000
_refine_ls_shift/su_mean          0.000

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_atom_site_U_iso_or_equiv
_atom_site_adp_type
_atom_site_occupancy
_atom_site_symmetry_multiplicity

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T1 Al 0.3333 0.6667 0.0642(9) 0.0111(19) Uiso 1 3 d SD . .
O1 O 0.3333 0.6667 0.2604(12) 0.0337(16) Uiso 1 3 d SD . .
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_geom_special_details
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All esds (except the esd in the dihedral angle between two l.s. planes)
are estimated using the full covariance matrix. The cell esds are taken
into account individually in the estimation of esds in distances, angles
and torsion angles; correlations between esds in cell parameters are only
used when they are defined by crystal symmetry. An approximate (isotropic)
treatment of cell esds is used for estimating esds involving l.s. planes.
;

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K O1 2.9851(8) . ?
K O1 2.9851(8) 1_445 ?
K O2 2.986(16) 5_664 ?
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K O2 2.986(16) 6_454 ?
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T2 O1 1.611(7) . ?
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T2 K 3.418(4) 1_565 ?
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