

No. 35A-21 RbTiOAsO₄, Rubidium titanyl arsenate (RTA)*(M* = 288.27)

1a	Ferroelectricity in RbTiOAsO ₄ was suggested by dielectric anomaly by Cheng et al. in 1991.	91Che															
b	<table> <tr> <th>phase</th><th>II</th><th>I</th></tr> <tr> <td>state</td><td>(F)</td><td>P</td></tr> <tr> <td>crystal system</td><td>orthorhombic</td><td>orthorhombic</td></tr> <tr> <td>space group</td><td>Pna2₁–C_{2v}⁹</td><td>Pnan–D_{2h}⁶</td></tr> <tr> <td>Θ [°C]</td><td colspan="2">765</td></tr> </table>	phase	II	I	state	(F)	P	crystal system	orthorhombic	orthorhombic	space group	Pna2 ₁ –C _{2v} ⁹	Pnan–D _{2h} ⁶	Θ [°C]	765		93Han
phase	II	I															
state	(F)	P															
crystal system	orthorhombic	orthorhombic															
space group	Pna2 ₁ –C _{2v} ⁹	Pnan–D _{2h} ⁶															
Θ [°C]	765																
	$\rho_X = 4.018 \cdot 10^3 \text{ kg m}^{-3}$. Transparent and colorless.	91Che															
2a	Crystal growth: flux method (RbAsO ₃ – Rb ₄ AsO ₇), flux method (RbAsO ₃), flux method (tungstate and molybdate).	93Han 94Che 91Che															
b	Crystal form: Fig. 35A-21-001.																
3a	Unit cell parameters: $a = 13.2428 \text{ Å}$, $b = 6.6685 \text{ Å}$, $c = 10.7642 \text{ Å}$.	93Han															
b	Crystal structure: Table 35A-21-001.																
9a	Refractive indices: Table 35A-21-002; see also Table 35A-6-013 in No. 35A-6. Optical transmission: Fig. 35A-21-002; see also Fig. 35A-6-037 in No. 35A-6.																
b	Electrooptic coefficient: see Table 35A-6-018 in No. 35A-6.																
e	Nonlinear optical coefficients [pm V ^{–1}]: $d_{31} = 2.24$, $d_{32} = 7.73$, $d_{33} = 19.62$ ($\lambda = 1.064 \text{ μm}$); see also Table 35A-6-018 in No. 35A-6. Noncritical phase-matched Ti: sapphire-pumped femtosecond optical parametric oscillator. High repetition rate femtosecond optical parametric oscillator.	93Han 95Rei 94Pow															
11	Electrical conductivity: see Fig. 35A-6-084 in No. 35A-6.																