

**Orthorhombic to cubic high temperature phase transition
in synthetic Rb₂CoSi₅O₁₂ leucite analogue**

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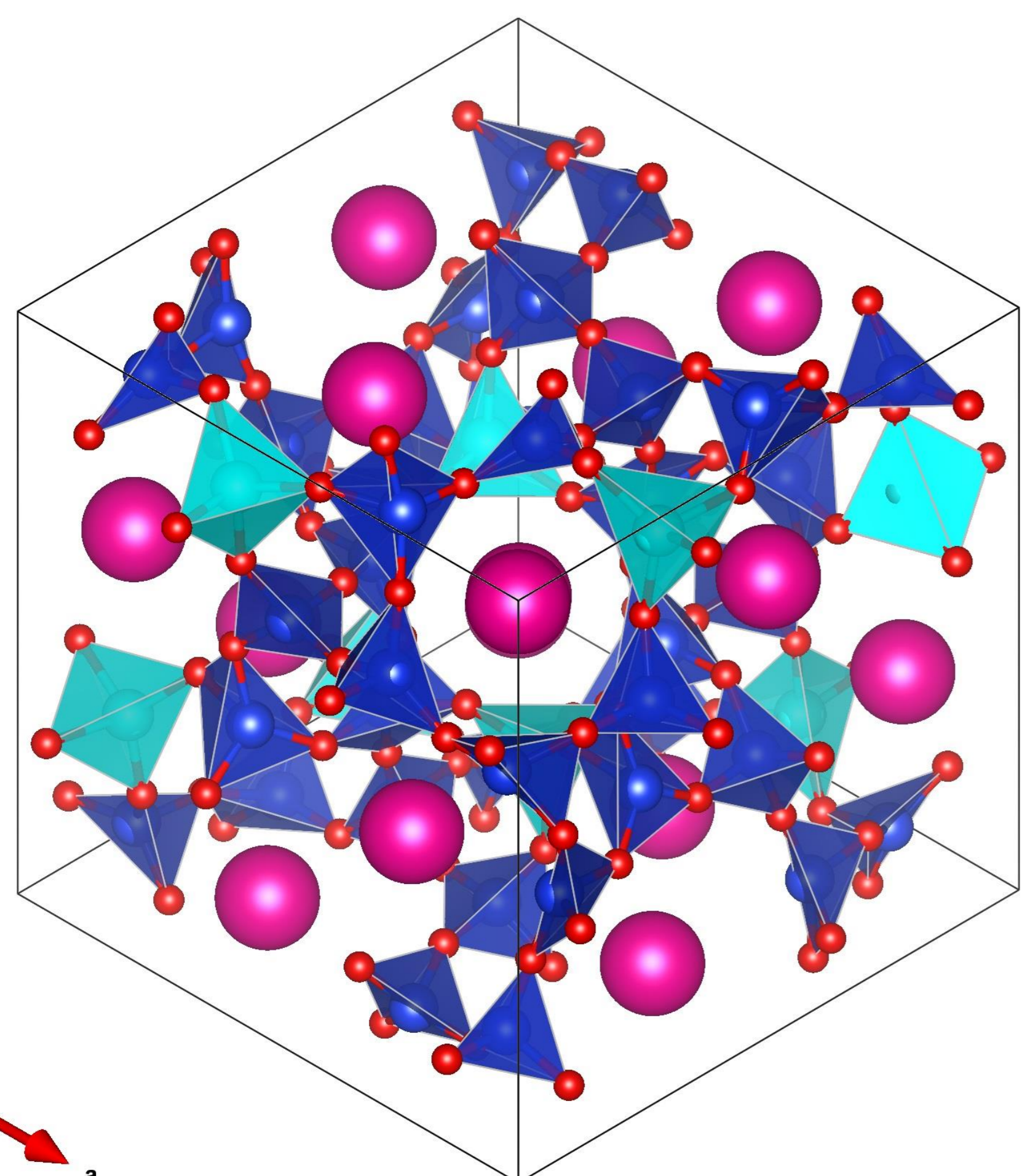
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Orthorhombic to cubic high temperature phase transition in synthetic $\text{Rb}_2\text{CoSi}_5\text{O}_{12}$ leucite analogue.

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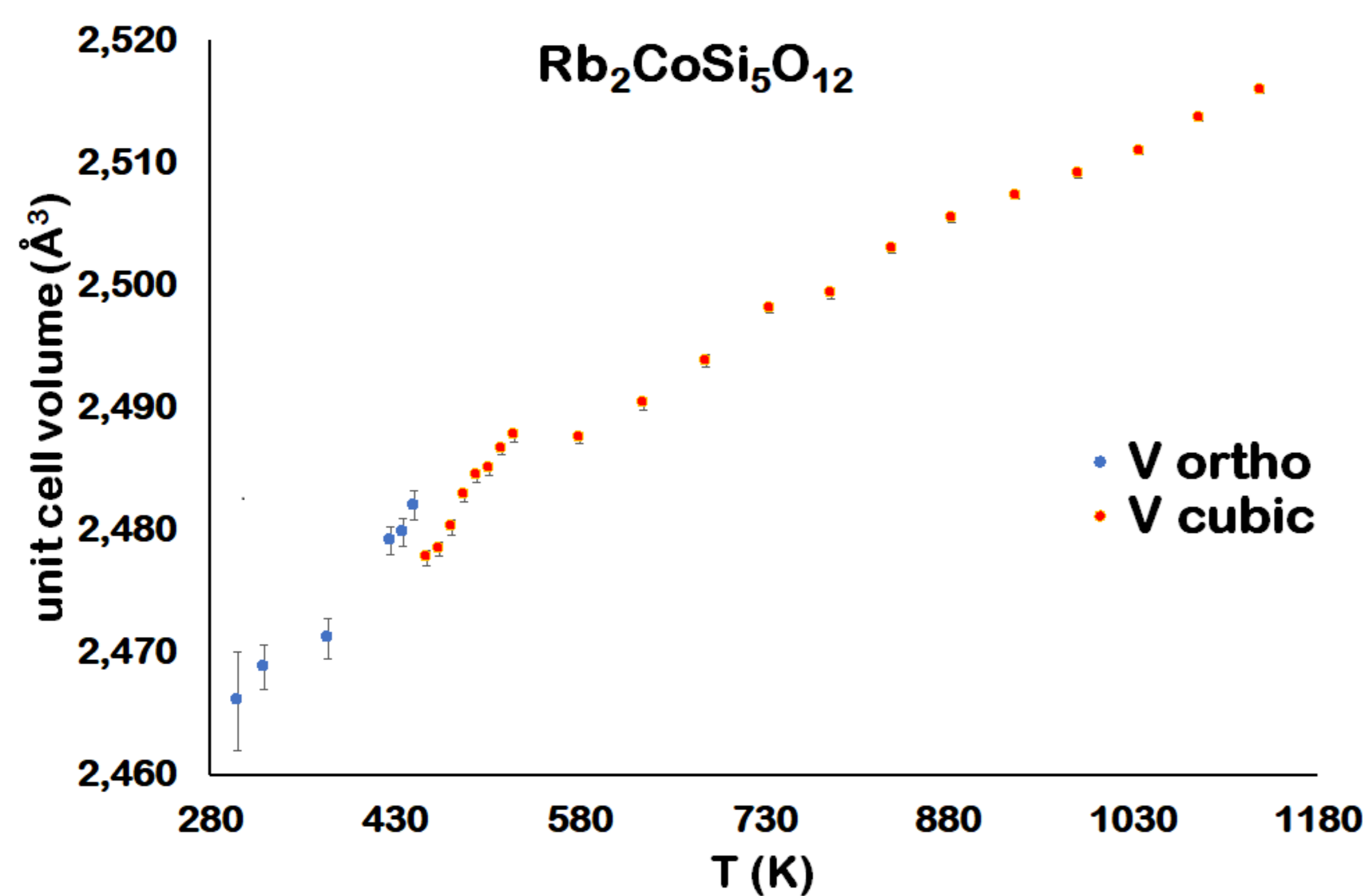
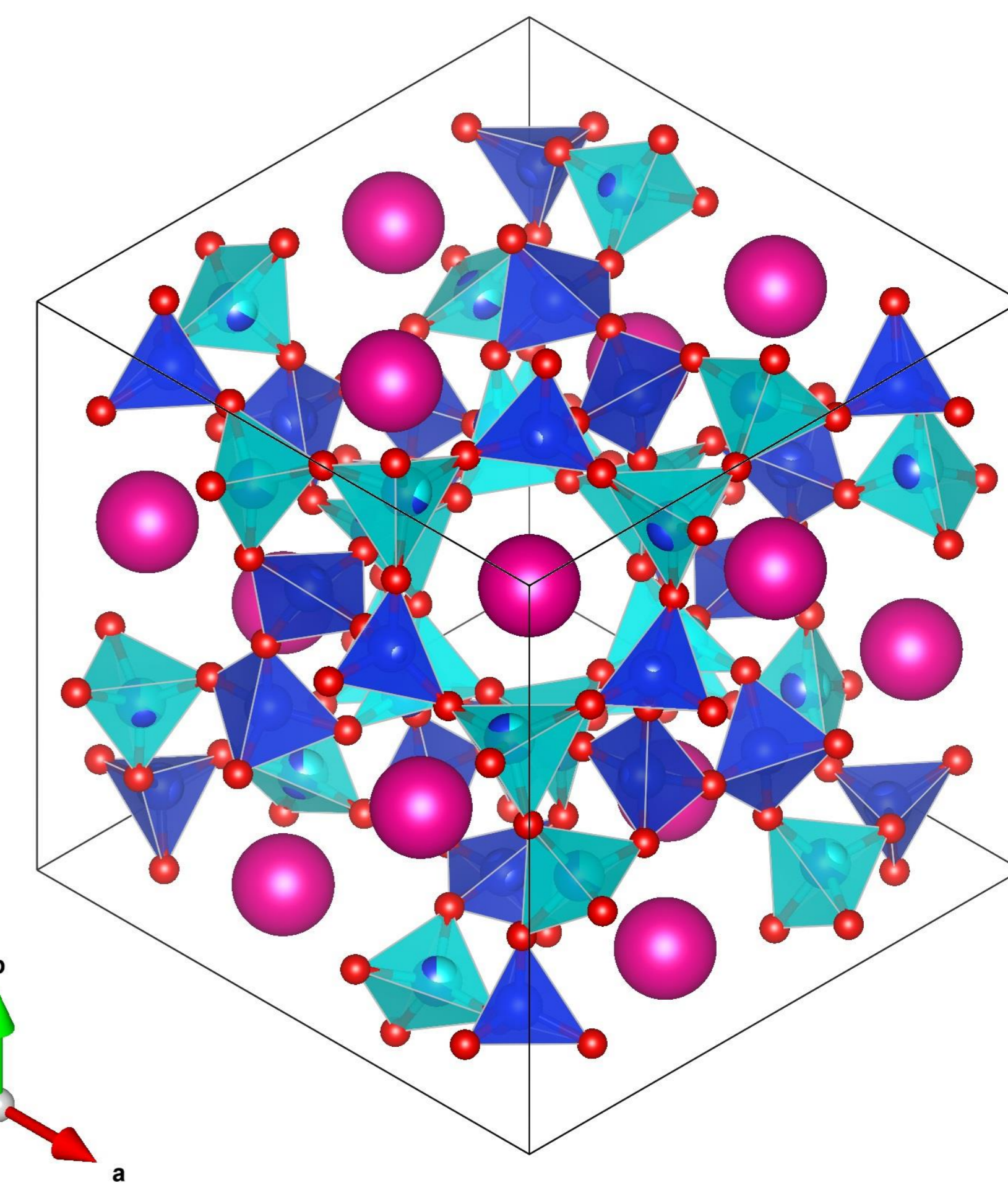
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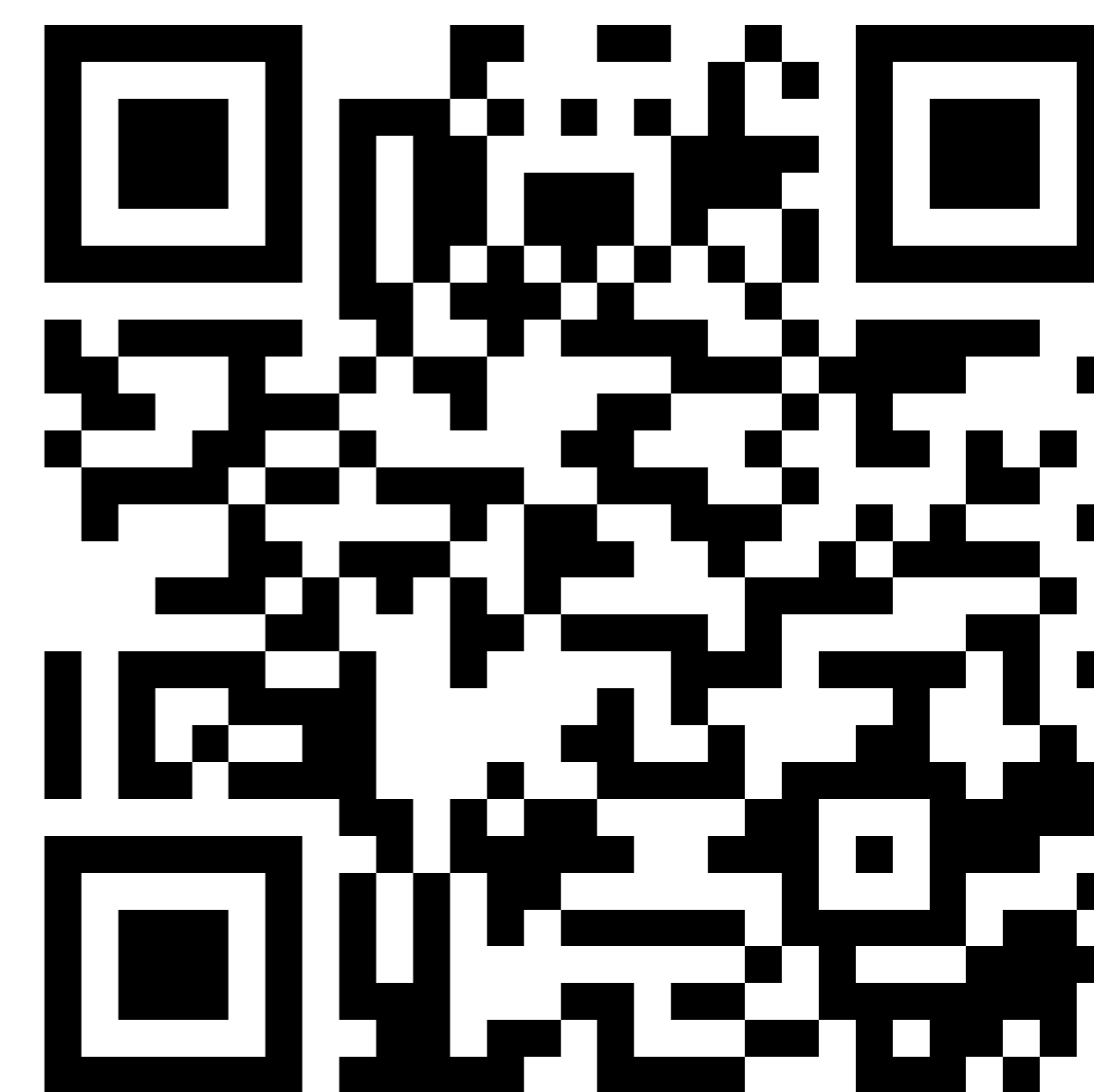
$\text{Rb}_2\text{CoSi}_5\text{O}_{12}$ is a leucite analogue with fully ordered T-sites. At room temperature is isostructural with *Pbca* $\text{Cs}_2\text{CdSi}_5\text{O}_{12}$ [1].

$\text{Rb}_2\text{CoSi}_5\text{O}_{12}$ structure changes to partially ordered T-sites on heating to 457K. It is isostructural with high temperature *Pa $\bar{3}$* $\text{Cs}_2\text{ZnSi}_5\text{O}_{12}$ [2].



$\text{Rb}_2\text{CoSi}_5\text{O}_{12}$ unit cell *contracts* through the orthorhombic-cubic phase transition!

Want to know more? Read my paper [3] or scan the QR code.



References:- [1] Bell, A.M.T., *et al Acta Cryst.* (1994). B50, 560-566 <https://doi.org/10.1107/S0108768194003393> [2] Bell, A.M.T. & Henderson, C.M.B. *Mineralogical Magazine* (2012). 76, 1257-1280. <https://doi.org/10.1180/minmag.2012.076.5.12> [3] Bell, A.M.T. *Minerals* (2023). 13(2). 210: <https://doi.org/10.3390/min13020210>