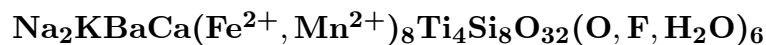


**Jinshajiangite**

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**Crystal Data:** Monoclinic. *Point Group:*  $2/m, m,$  or  $2.$  As tabular crystals, up to 2 cm.**Physical Properties:** *Cleavage:* Perfect on  $\{010\}$  and  $\{100\}.$  *Fracture:* Uneven.  
Hardness = n.d. VHN = 430 D(meas.) = 3.61 D(calc.) = 3.56**Optical Properties:** Semitransparent. *Color:* Blackish red, brownish red, golden red.  
*Streak:* Light yellow. *Luster:* Vitreous.  
*Optical Class:* Biaxial (+). *Pleochroism:* Strong;  $X =$  light golden yellow;  $Y =$  brownish yellow;  
 $Z =$  brownish red. *Orientation:*  $X \wedge c = 13^\circ.$  *Dispersion:*  $r < v.$  *Absorption:*  $X = Y > Z.$   
 $\alpha = 1.729$   $\beta = 1.802$   $\gamma = 1.852$   $2V(\text{meas.}) = 72^\circ$   $2V(\text{calc.}) = 76^\circ$ **Cell Data:** *Space Group:*  $C2/m, Cm,$  or  $C2.$   $a = 10.732$   $b = 13.847$   $c = 20.817$   
 $\beta = 95^\circ 3'$   $Z = 2$ **X-ray Powder Pattern:** Near the Jinshajiang River, China.  
3.44 (10), 3.15 (8), 2.570 (8), 10.2 (7), 2.85 (7), 2.63 (7), 1.715 (5b)

Chemistry:	(1)		(1)	
	SiO <sub>2</sub>	27.10	MgO	0.28
	TiO <sub>2</sub>	15.90	CaO	2.94
	(Zr, Hf)O <sub>2</sub>	0.70	SrO	0.08
	Al <sub>2</sub> O <sub>3</sub>	0.36	BaO	9.80
	RE <sub>2</sub> O <sub>3</sub>	0.30	Na <sub>2</sub> O	3.15
	Fe <sub>2</sub> O <sub>3</sub>	1.64	K <sub>2</sub> O	2.31
	Nb <sub>2</sub> O <sub>5</sub>	1.03	F	2.66
	Ta <sub>2</sub> O <sub>5</sub>	0.07	H <sub>2</sub> O <sup>+</sup>	0.33
	FeO	19.07	H <sub>2</sub> O <sup>-</sup>	0.36
	MnO	12.93	-O = F <sub>2</sub>	1.12
			<hr/> Total	<hr/> 99.89

(1) Near the Jinshajiang River, China; corresponds to  $\text{Na}_{1.81}\text{K}_{0.87}\text{Ba}_{1.14}\text{Ca}_{0.93}\text{RE}_{0.10}\text{Sr}_{0.01}$   
 $(\text{Fe}_{4.73}^{2+}\text{Mn}_{3.25}\text{Mg}_{0.12})_{\Sigma=8.10}(\text{Ti}_{3.55}\text{Fe}_{0.37}^{3+}\text{Nb}_{0.14}\text{Zr}_{0.10})_{\Sigma=4.16}(\text{Si}_{8.04}\text{Al}_{0.12})_{\Sigma=8.16}\text{O}_{32}[\text{O}_{2.83}\text{F}_{2.49}$   
 $(\text{H}_2\text{O})_{0.56}(\text{OH})_{0.12}]_{\Sigma=6.00}.$ **Occurrence:** In an arfvedsonite dike in alkalic syenites.**Association:** Albite, arfvedsonite, aegirine, pyrochlore, monazite, chevkinite.**Distribution:** Found near the Jinshajiang River, western Sichuan Province, China.**Name:** For the Jinshajiang River, China.**Type Material:** Institute of Geochemistry, Academy Sinica, Guiyang, Ghizhou Province, China.**References:** (1) Hong Wenxing and Fu Pingqiu (1982) Jinshajiangite, a new Ba-Mn-Fe-Ti-bearing silicate mineral. *Geochemistry (China)*, 1, 458–464 (in English). (2) (1984) *Amer. Mineral.*, 69, 567 (abs. ref. 1). (3) Chao, G.Y. (1991) Perraultite, a new hydrous Na-K-Ba-Mn-Ti-Nb silicate species from Mont Saint-Hilaire, Quebec. *Can. Mineral.*, 29, 355–358.