Reedmergnerite $NaBSi_3O_8$

Crystal Data: Triclinic. *Point Group*: $\bar{1}$. As stubby prismatic to platy crystals, commonly wedge-shaped, may have jagged terminations; in aggregates, to 10 cm.

Physical Properties: *Cleavage*: Perfect on {001}. Hardness = 6-7 D(meas.) = 2.70-2.78 D(calc.) = 2.779

Optical Properties: Transparent. *Color*: Colorless to tan or yellowish pink. *Luster*: Vitreous. *Optical Class*: Biaxial (-). α = 1.554-1.558 β = 1.565 γ = 1.572-1.573 2V(meas.) = 74°-81°

Cell Data: *Space Group*: $C\bar{1}$. a = 7.8388(9) b = 12.3730(10) c = 6.8082(7) α = 93.324(8)° β = 116.381(9)° γ = 92.014(8)° Z = 4

X-ray Powder Pattern: Duchesne Co., Utah, USA.
3.037 (100), 3.561 (90), 3.076 (90), 3.225 (85), 3.876 (65), 2.841 (55), 6.076 (50)

Chemistry:	(1)	(2)	(3)		(1)	(2)	(3)
SiO_2	73.13	68.63	73.26	BaO	0.09		
TiO_2	0.03			Na_2O	12.15	10.11	12.59
B_2O_3	14.27	16.80	14.15	K_2O	0.03		
Al_2O_3	0.15	0.90		F		0.09	
Fe_2O_3	0.08			H_2O	0.08	0.98	
MgO	0.09	2.20		P_2O_5		0.08	.
CaO		0.70		Total	100.10	100.49	100.00

(1) Duchesne Co., Utah, USA. (2) Dara-i-Pioz massif, Tajikistan. (3) $NaBSi_3O_8$.

Mineral Group: Feldspar group.

Occurrence: As authigenic crystals along bedding laminations, in brown dolomitic rock and black oil shale from well cuttings (Duchesne Co., Utah, USA); in highly evolved pegmatite in an alkalic massif (Dara-i-Pioz massif, Tajikistan).

Association: Eitelite, shortite, nahcolite, searlesite, leucosphenite, aegirine, analcime, magnesio-riebeckite (Duchesne Co., Utah, USA); leucosphenite, eudialyte, stillwellite, pyrochlore, microcline, aegirine, polylithionite, albite, quartz (Dara-i-Pioz massif, Tajikistan).

Distribution: Near the Joseph Smith #1 well, near Duchesne, Duchesne Co., Utah; and at Wind Mountain, Otero Co., New Mexico, USA. In the Dara-i-Pioz massif, Alai Range, Tien Shan, Tajikistan. From the Lovozero massif, Kola Peninsula, Russia.

Name: Honors Frank S. *Reed* (1894-?) and John L. *Mergner* (1894-?), petrographic technicians with the U.S. Geological Survey.

Type Material: National Museum of Natural History, Washington, D.C., USA, 106865.

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