

Document AM-86-309

Supplement to Lange, R.A., Carmichael, I.S.E.
and Stebbins, J.F. (1986) Phase
transitions in leucite (KAlSi₂O₆),
orthorhombic KAlSiO₄ and their
iron analogues (KFeSi₂O₆, KFeSiO₄).
American Mineralogist, 71, 937-945.

Thermodynamic data for the following minerals:

- 1) 89-21 Mt. Cimini leucite
- 2) 89-21-A Heat-treated Mt. Cimini leucite
- 3) 90-05 Rocca Monfina leucite
- 4) 1774 Wyomingite leucite
- 5) SL.1 Synthetic KAlSi₂O₆
- 6) FL.1 Synthetic KFeSi₂O₆
- 7) SL.2 Synthetic 86 wt.% KAlSi₂O₆-14 wt.% KAlSi₃O₈
- 8) alpha-KF Synthetic orthorhombic KFeSiO₄
- 9) beta-KF Synthetic hexagonal KFeSiO₄

* Data derived from fitted heat capacity measurements

Mt. Cimini leucite 89-21			
T (K)	Cp (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	157.6	314.	1.3
310.0	162.3	1914.	7.7
320.0	166.6	3559.	14.0
330.0	170.5	5245.	20.2
340.0	174.2	6989.	26.2
350.0	177.7	8728.	32.2
360.0	180.9	10521.	38.1
370.0	183.9	12346.	43.8
380.0	186.7	14199.	49.5
390.0	189.4	16080.	55.0
400.0	192.0	17987.	60.5
410.0	195.2	19919.	66.1
420.0	197.4	21882.	71.4
430.0	199.6	23866.	76.6
440.0	201.5	25871.	81.7
450.0	203.4	27895.	86.7
460.0	205.3	29939.	91.6
470.0	207.2	32001.	96.6
480.0	209.0	34083.	101.4
490.0	210.7	36181.	106.1
500.0	212.1	38295.	110.8
510.0	213.5	40424.	115.4
520.0	215.0	42568.	119.9
530.0	216.2	44723.	124.3
540.0	217.0	46889.	128.6
550.0	218.5	49067.	132.9
560.0	219.8	51259.	137.2
570.0	221.2	53464.	141.4
580.0	222.5	55682.	145.6
590.0	223.8	57913.	149.8
600.0	224.9	60157.	153.8
610.0	226.4	62414.	157.9
620.0	227.6	64683.	161.9
630.0	228.8	66964.	165.9
640.0	230.1	69259.	169.8
650.0	231.3	71566.	173.7
660.0	232.6	73886.	177.6
670.0	233.9	76218.	181.4
680.0	235.0	78562.	185.1
690.0	236.9	80925.	189.0
700.0	238.2	83301.	192.8
710.0	239.3	85689.	196.5
720.0	240.8	88090.	200.2
730.0	241.9	90505.	203.8
740.0	243.5	92932.	207.5
750.0	245.0	95375.	211.2
757.0	245.9	97093.	213.7
758.0	246.2	97339.	214.1
759.0	246.4	97586.	214.4
760.0	246.6	97832.	214.8
761.0	246.6	98079.	215.2
762.0	246.7	98325.	215.6
763.0	247.2	98572.	215.9
764.0	247.0	98819.	216.2
765.0	247.2	99066.	216.6
766.0	247.5	99314.	217.0
767.0	247.8	99561.	217.3
768.0	247.9	99809.	217.7

(89-21)

T	Cp	H(T)-H(298)	S(T)-S(298)
769.0	248.0	100057.	218.1
770.0	248.3	100306.	219.5
771.0	248.4	100554.	218.8
772.0	248.6	100802.	219.2
773.0	248.7	101051.	219.5
774.0	249.1	101300.	220.0
775.0	249.0	101549.	220.3
776.0	249.2	101798.	220.6
777.0	249.5	102047.	221.0
778.0	249.9	102297.	221.5
779.0	249.9	102547.	221.8
780.0	250.0	102797.	222.1
781.0	250.3	103047.	222.5
782.0	250.6	103297.	222.9
783.0	250.6	103548.	223.2
784.0	251.0	103799.	223.7
785.0	251.1	104050.	224.0
786.0	251.3	104301.	224.4
787.0	251.5	104552.	224.7
788.0	251.8	104804.	225.1
789.0	252.0	105056.	225.5
790.0	252.3	105308.	226.0
791.0	250.5	105559.	225.8
792.0	250.8	105809.	226.1
793.0	251.1	106060.	226.5
794.0	251.4	106312.	226.9
795.0	251.4	106563.	227.2
796.0	251.7	106815.	227.6
797.0	251.9	107066.	228.0
798.0	252.0	107318.	228.4
799.0	252.1	107570.	228.7
800.0	252.5	107823.	229.1
801.0	252.9	108075.	229.5
802.0	252.9	108328.	229.8
803.0	253.3	108581.	230.3
804.0	253.6	108835.	230.6
805.0	253.8	109089.	231.0
806.0	254.1	109343.	231.4
807.0	254.3	109597.	231.8
808.0	254.5	109851.	232.1
809.0	254.7	110106.	232.5
810.0	254.9	110361.	232.9
811.0	255.3	110616.	233.3
812.0	255.6	110871.	233.7
813.0	256.1	111127.	234.1
814.0	256.4	111383.	234.5
815.0	256.8	111640.	234.9
816.0	256.9	111896.	235.2
817.0	257.2	112153.	235.6
818.0	257.5	112411.	236.0
819.0	258.0	112669.	236.5
820.0	258.5	112927.	236.9
821.0	258.8	113185.	237.3
822.0	259.4	113445.	237.7
823.0	259.8	113704.	238.2
824.0	260.2	113964.	238.6
825.0	260.5	114225.	239.0
826.0	261.3	114486.	239.5
827.0	261.6	114747.	239.9
828.0	262.1	115009.	240.3

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T	Cp	H(T)-H(298)	S(T)-S(298)
829.0	282.8	115271.	240.8
830.0	283.2	115534.	241.2
831.0	283.7	115798.	241.7
832.0	284.4	116062.	242.2
833.0	285.0	116326.	242.6
834.0	285.5	116591.	243.1
835.0	286.1	116857.	243.6
836.0	286.7	117124.	244.0
837.0	287.5	117391.	244.5
838.0	288.3	117659.	245.1
839.0	289.2	117927.	245.6
840.0	289.8	118197.	246.1
850.0	281.5	120946.	252.2
860.0	304.7	123867.	261.4
870.0	300.5	126942.	264.0
880.0	280.2	129841.	262.3
890.0	252.5	132512.	258.4
900.0	241.5	134971.	258.3
910.0	237.4	137381.	260.0
920.0	234.9	139721.	261.9
930.0	234.2	142066.	264.3
940.0	233.9	144405.	266.7
950.0	233.6	146741.	269.1
960.0	234.0	149078.	271.6
970.0	234.5	151420.	274.2
980.0	235.7	153771.	276.9
990.0	237.0	156133.	279.6

Heat-treated T (K)	Mt. Cimini leucite Cp (J/gfw K)	89-21-A H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	166.3	332.	1.3
310.0	169.4	2011.	7.6
320.0	172.4	3720.	13.7
330.0	175.2	5458.	19.8
340.0	177.8	7223.	25.7
350.0	180.4	9014.	31.5
360.0	182.8	10830.	37.3
370.0	185.1	12669.	42.9
380.0	187.3	14531.	48.4
390.0	189.5	16415.	53.8
400.0	191.5	18320.	59.2
410.0	192.8	20246.	64.2
420.0	194.9	22184.	69.4
430.0	197.1	24143.	74.6
440.0	199.1	26124.	79.7
450.0	201.0	28125.	84.7
460.0	203.0	30145.	89.6
470.0	204.8	32183.	94.4
480.0	206.5	34240.	99.2
490.0	208.1	36312.	103.9
500.0	209.5	38400.	108.4
510.0	211.1	40504.	113.0
520.0	212.5	42622.	117.4
530.0	214.1	44755.	121.9
540.5	216.7	47012.	127.2
550.5	218.0	49186.	131.5
560.5	219.2	51372.	135.8
570.5	220.5	53570.	140.0
580.5	221.6	55781.	144.1
590.5	222.8	58003.	148.2
600.5	224.0	60238.	152.3
610.5	225.2	62485.	156.3
620.5	226.5	64744.	160.3
630.5	227.8	67015.	164.2
640.5	229.2	69300.	168.2
650.5	230.5	71598.	172.1
660.5	232.0	73910.	176.0
670.5	233.4	76238.	179.8
680.5	235.1	78580.	183.7
690.5	236.5	80939.	187.5
700.5	237.9	83311.	191.3
710.5	239.2	85698.	195.0
720.5	240.7	88098.	198.7
730.5	242.0	90511.	202.3
740.5	243.8	92941.	206.1
750.5	245.6	95387.	209.8
755.5	246.7	96863.	212.1
757.5	246.9	97110.	212.4
758.5	247.1	97357.	212.8
759.5	247.3	97604.	213.2
760.5	247.3	97852.	213.5
761.5	247.5	98099.	213.9
762.5	247.7	98347.	214.3
763.5	248.0	98595.	214.7
764.5	247.8	98843.	215.0
765.5	248.2	99091.	215.4
766.5	248.4	99339.	215.7
767.5	248.7	99587.	216.1

(89-21-A)

T	Cp	H(T)-H(298)	S(T)-S(298)
768.5	249.0	99838.	216.6
769.5	249.3	100085.	216.9
770.5	249.4	100335.	217.3
771.5	249.6	100584.	217.7
772.5	249.9	100834.	218.1
773.5	250.1	101084.	218.4
774.5	250.4	101334.	218.8
775.5	250.7	101585.	219.2
776.5	250.9	101836.	219.6
777.5	251.3	102087.	220.0
778.5	251.4	102338.	220.4
779.5	251.7	102590.	220.8
780.5	251.9	102842.	221.1
781.5	252.3	103094.	221.6
782.5	252.4	103346.	221.9
783.5	252.7	103598.	222.3
784.5	252.9	103851.	222.7
785.5	253.3	104104.	223.1
786.5	253.8	104358.	223.6
787.5	254.1	104612.	224.0
788.5	254.3	104866.	224.3
789.5	254.6	105121.	224.8
790.5	256.0	105376.	225.4
791.5	256.3	105632.	225.8
792.5	256.7	105888.	226.2
793.5	257.0	106145.	226.6
794.5	257.4	106402.	227.0
795.5	257.8	106660.	227.4
796.5	258.1	106918.	227.9
797.5	258.6	107176.	228.3
798.5	258.9	107435.	228.7
799.5	259.2	107694.	229.1
800.5	259.6	107953.	229.6
801.5	260.2	108213.	230.0
802.5	260.4	108473.	230.4
803.5	260.9	108734.	230.8
804.5	261.5	108995.	231.3
805.5	262.0	109257.	231.8
806.5	262.3	109519.	232.2
807.5	263.0	109782.	232.7
808.5	263.6	110045.	233.1
809.5	264.0	110309.	233.6
810.5	264.5	110573.	234.0
811.5	265.3	110838.	234.5
812.5	266.1	111104.	235.1
813.5	266.8	111370.	235.6
814.5	267.5	111637.	236.1
815.5	268.1	111905.	236.5
816.5	268.7	112173.	237.0
817.5	269.7	112443.	237.6
818.5	270.7	112713.	238.2
819.5	271.5	112984.	238.7
820.5	272.7	113256.	239.3
821.5	273.9	113529.	240.0
822.5	275.0	113804.	240.6
823.5	276.4	114079.	241.2
824.5	277.7	114356.	241.9
825.5	279.3	114635.	242.7
826.5	281.2	114915.	243.5
827.5	283.0	115197.	244.3

(89-21-A)

T	Cp	H(T)-H(298)	S(T)-S(298)
828.5	284.8	115481.	245.0
829.5	287.0	115767.	245.9
830.5	289.8	116055.	247.0
831.5	292.5	116346.	248.0
832.5	295.9	116640.	249.2
833.5	298.9	116938.	250.3
834.5	302.8	117239.	251.6
835.5	306.3	117543.	252.9
836.5	309.7	117851.	254.1
837.5	312.4	118162.	255.1
838.5	314.8	118476.	256.1
839.5	316.1	118792.	256.8
840.5	318.2	119108.	257.3
841.5	314.8	119423.	257.3
842.5	312.6	119737.	257.2
843.5	309.2	120048.	256.8
844.5	304.9	120355.	256.0
845.5	300.4	120658.	255.2
846.5	298.4	120956.	254.6
847.5	292.7	121251.	254.0
848.5	289.6	121542.	253.5
849.5	287.3	121830.	253.3
850.5	286.8	122117.	253.5
851.5	287.6	122404.	254.0
852.5	289.6	122693.	254.8
853.5	292.0	122984.	255.8
854.5	294.2	123277.	256.7
855.5	295.2	123571.	257.3
856.5	296.9	123867.	258.0
857.5	297.1	124165.	258.5
858.5	295.4	124461.	258.4
859.5	292.9	124755.	257.7
860.5	287.1	125041.	256.1
861.5	269.6	125317.	253.2
862.5	269.5	125581.	250.9
863.5	252.9	125837.	249.4
864.5	249.1	126088.	248.8
865.5	246.7	126336.	248.4
866.5	244.9	126581.	248.2
867.5	243.9	126826.	248.3
868.5	243.2	127069.	248.4
869.5	242.3	127312.	248.4
870.5	241.6	127554.	248.6
871.5	241.0	127795.	248.7
872.5	240.6	128036.	248.8
873.5	240.4	128277.	249.1
874.5	240.1	128517.	249.3
875.5	239.9	128757.	249.5
876.5	239.8	128997.	249.7
877.5	239.4	129236.	249.9
878.5	239.0	129476.	250.1
879.5	238.7	129714.	250.3
880.5	238.7	129953.	250.5
890.5	237.8	132335.	253.0
900.5	236.7	134711.	255.3
910.5	236.5	137077.	257.9
920.5	235.4	139436.	260.3
930.5	235.3	141791.	262.8
940.5	235.4	144142.	265.3
950.5	234.8	146491.	267.6

(89-21-A)

T	Cp	H(T)-H(298)	S(T)-S(298)
960.5	235.0	148840.	270.2
970.5	235.7	151193.	272.8
980.5	236.8	153554.	275.5
990.5	237.3	155925.	278.0

Rocca Monfina leucite 90-05			
T (K)	Cp (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	155.3	310.	1.3
310.0	160.1	1807.	7.6
320.0	164.4	3510.	13.9
330.0	168.5	5175.	20.0
340.0	172.2	6879.	26.0
350.0	175.7	8619.	32.0
360.0	179.0	10392.	37.8
370.0	182.0	12198.	43.5
380.0	184.9	14033.	49.1
390.0	187.6	15896.	54.6
400.0	190.2	17785.	60.1
410.0	193.0	19700.	65.5
420.0	195.1	21640.	70.7
430.0	197.1	23601.	75.8
440.0	199.0	25581.	80.8
450.0	201.0	27581.	85.8
460.0	202.8	29601.	90.7
470.0	204.8	31639.	95.6
480.0	206.8	33697.	100.4
490.0	208.5	35774.	105.1
500.0	210.4	37869.	109.9
510.0	212.0	39981.	114.4
520.0	213.7	42110.	119.0
530.0	215.3	44254.	123.5
540.0	216.8	46414.	127.9
550.0	217.7	48585.	132.1
560.0	219.1	50770.	136.4
570.0	220.5	52968.	140.6
580.0	221.7	55179.	144.8
590.0	222.8	57403.	148.9
600.0	224.1	59638.	152.9
610.0	225.4	61885.	157.0
620.0	226.6	64145.	161.0
630.0	227.9	66418.	164.9
640.0	229.1	68703.	168.8
650.0	230.3	71001.	172.7
660.0	231.5	73310.	176.5
670.0	232.7	75631.	180.3
680.0	233.8	77964.	184.0
690.0	234.7	80306.	187.7
700.0	235.8	82658.	191.3
710.0	236.8	85022.	194.9
720.0	237.9	87398.	198.6
730.0	239.0	89780.	202.1
740.0	239.9	92175.	205.6
750.0	241.1	94581.	209.1
760.0	242.5	97000.	212.7
763.0	243.2	97728.	213.8
764.0	243.3	97971.	214.2
765.0	243.2	98215.	214.4
768.0	243.5	98458.	214.8
767.0	243.8	98702.	215.2
768.0	244.1	98945.	215.6
769.0	244.1	99190.	215.9
770.0	244.2	99434.	216.3
771.0	244.4	99678.	216.6
772.0	244.6	99923.	217.0
773.0	244.8	100167.	217.4

(90-05)

. T	Cp	H(T)-H(298)	S(T)-S(298)
774.0	245.0	100412.	217.7
775.0	245.1	100657.	218.1
776.0	245.4	100902.	218.5
777.0	245.4	101148.	218.8
778.0	245.6	101393.	219.2
779.0	245.9	101639.	219.6
780.0	246.1	101885.	219.9
781.0	246.3	102131.	220.3
782.0	246.5	102378.	220.6
783.0	246.7	102624.	221.0
784.0	246.7	102871.	221.3
785.0	247.2	103118.	221.8
786.0	247.4	103365.	222.1
787.0	247.6	103613.	222.5
788.0	247.7	103861.	222.8
789.0	247.9	104108.	223.2
790.0	248.1	104356.	223.6
791.0	247.2	104604.	223.7
792.0	247.4	104851.	224.0
793.0	247.5	105098.	224.3
794.0	247.7	105346.	224.7
795.0	247.9	105594.	225.1
796.0	247.9	105842.	225.4
797.0	248.1	106090.	225.7
798.0	248.3	106338.	226.1
799.0	248.4	106586.	226.4
800.0	248.6	106835.	226.8
801.0	248.9	107083.	227.2
802.0	249.0	107332.	227.5
803.0	249.2	107582.	227.9
804.0	249.3	107831.	228.2
805.0	249.5	108080.	228.6
806.0	249.8	108330.	229.0
807.0	249.9	108580.	229.3
808.0	250.1	108830.	229.7
809.0	250.2	109080.	230.0
810.0	250.4	109330.	230.4
811.0	250.6	109581.	230.7
812.0	250.8	109831.	231.1
813.0	251.1	110082.	231.4
814.0	251.3	110333.	231.8
815.0	251.4	110585.	232.2
816.0	251.7	110836.	232.5
817.0	251.9	111088.	232.9
818.0	252.1	111340.	233.2
819.0	252.3	111592.	233.6
820.0	252.6	111845.	234.0
821.0	252.8	112098.	234.4
822.0	253.1	112350.	234.7
823.0	253.5	112604.	235.1
824.0	253.7	112857.	235.5
825.0	253.7	113111.	235.8
826.0	254.0	113365.	236.2
827.0	254.0	113619.	236.5
828.0	254.4	113873.	236.9
829.0	254.7	114127.	237.3
830.0	255.0	114382.	237.7
831.0	255.2	114637.	238.0
832.0	255.4	114893.	238.4
833.0	255.7	115148.	238.8

(90-05)

. T	Cp	H(T)-H(298)	S(T)-S(298)
834.0	258.1	115404.	239.2
835.0	258.5	115660.	239.6
836.0	258.7	115917.	239.9
837.0	257.1	116174.	240.3
838.0	257.3	116431.	240.7
839.0	257.6	116688.	241.1
840.0	257.9	116946.	241.5
841.0	258.3	117204.	241.9
842.0	258.7	117463.	242.3
843.0	259.2	117722.	242.7
844.0	259.7	117981.	243.1
845.0	259.8	118241.	243.5
846.0	260.2	118501.	243.9
847.0	260.7	118761.	244.3
848.0	261.3	119022.	244.8
849.0	261.4	119284.	245.1
850.0	262.0	119545.	245.6
851.0	262.5	119808.	246.0
852.0	263.0	120070.	246.4
853.0	263.4	120334.	246.9
854.0	263.9	120598.	247.4
855.0	264.9	120862.	247.8
856.0	265.4	121127.	248.3
857.0	266.1	121393.	248.7
858.0	266.7	121660.	249.2
859.0	267.5	121927.	249.7
860.0	268.2	122195.	250.2
861.0	269.1	122463.	250.8
862.0	269.9	122733.	251.2
863.0	270.6	123003.	251.7
864.0	271.5	123274.	252.3
865.0	272.6	123546.	252.9
866.0	273.8	123819.	253.5
867.0	274.8	124094.	254.1
868.0	275.8	124369.	254.6
869.0	277.3	124645.	255.3
870.0	278.7	124923.	256.0
871.0	280.1	125203.	256.6
872.0	281.6	125484.	257.3
873.0	283.3	125766.	258.1
874.0	285.3	126050.	258.9
875.0	286.9	126336.	259.6
876.0	288.9	126624.	260.4
877.0	291.1	126914.	261.3
878.0	293.6	127207.	262.3
879.0	296.2	127502.	263.3
880.0	298.6	127799.	264.2
881.0	300.8	128099.	265.1
882.0	303.2	128401.	266.0
883.0	305.1	128705.	266.8
884.0	306.5	129011.	267.6
885.0	307.4	129318.	268.2
886.0	307.4	129625.	268.5
887.0	308.5	129933.	268.7
888.0	305.3	130238.	268.7
889.0	303.1	130543.	268.5
890.0	300.3	130844.	268.2
891.0	297.3	131143.	267.8
892.0	294.1	131439.	267.3
893.0	291.1	131732.	266.9

(90-05)

T	Cp	H(T)-H(298)	S(T)-S(298)
894.0	288.8	132022.	266.8
895.0	288.1	132309.	266.3
896.0	283.5	132594.	265.9
897.0	281.5	132878.	265.7
898.0	280.1	133157.	265.7
899.0	278.8	133436.	265.7
900.0	278.5	133715.	265.9
901.0	277.9	133993.	266.0
902.0	277.6	134271.	266.3
903.0	278.1	134549.	266.7
904.0	278.6	134827.	267.1
905.0	279.4	135106.	267.6
906.0	279.7	135386.	268.0
907.0	279.8	135665.	268.4
908.0	278.5	135944.	268.4
909.0	276.6	136222.	268.2
910.0	273.3	136497.	267.7
911.0	269.2	136769.	267.0
912.0	264.9	137038.	266.3
913.0	260.3	137298.	265.4
914.0	256.8	137556.	264.7
915.0	252.7	137811.	264.0
916.0	249.4	138062.	263.4
917.0	246.6	138310.	263.0
918.0	244.5	138556.	262.8
919.0	242.5	138799.	262.5
920.0	240.5	139041.	262.3
921.0	239.2	139281.	262.2
922.0	238.3	139519.	262.2
923.0	237.7	139757.	262.3
924.0	237.0	139995.	262.4
925.0	236.5	140231.	262.5
926.0	236.4	140468.	262.8
927.0	235.9	140704.	262.9
930.0	235.5	141411.	263.6
940.0	234.9	143762.	265.9
950.0	234.9	146110.	268.4
960.0	235.1	148461.	270.9
970.0	235.5	150813.	273.4
980.0	236.2	153171.	276.0
990.0	236.9	155538.	278.6

Wyomingite leucite 1774			
T (K)	Cp (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	147.3	293.	1.3
310.0	152.5	1793.	7.5
320.0	157.2	3341.	13.6
330.0	161.6	4936.	19.6
340.0	165.6	6573.	25.5
350.0	169.4	8248.	31.3
360.0	172.9	9959.	37.0
370.0	176.1	11704.	42.5
380.0	179.1	13480.	48.0
390.0	181.9	15285.	53.4
400.0	184.6	17118.	58.7
410.0	188.3	18977.	64.3
420.0	189.7	20889.	69.2
430.0	191.9	22779.	74.2
440.0	193.8	24709.	79.1
450.0	195.7	26656.	84.0
460.0	197.3	28621.	88.7
470.0	198.9	30602.	93.4
480.0	200.5	32600.	98.0
490.0	202.0	34613.	102.5
500.0	203.5	36640.	107.0
510.0	205.1	38683.	111.4
520.0	206.6	40741.	115.7
530.0	208.8	42822.	120.3
540.0	210.2	44917.	124.6
550.5	212.0	47134.	129.4
560.5	213.1	49260.	133.5
570.5	214.3	51397.	137.6
580.5	215.5	53546.	141.6
590.5	216.8	55706.	145.5
600.5	217.5	57877.	149.4
610.5	218.6	60058.	153.3
620.5	219.7	62251.	157.1
630.5	220.7	64454.	160.9
640.5	221.7	66666.	164.6
650.5	222.8	68889.	168.4
660.5	223.6	71122.	172.0
670.5	224.8	73365.	175.6
680.5	225.4	75616.	179.1
690.5	226.3	77874.	182.6
700.5	226.9	80139.	186.0
710.5	227.8	82412.	189.5
720.5	228.4	84692.	192.8
730.5	229.4	86982.	196.2
740.5	230.2	89279.	199.6
750.5	231.1	91586.	202.9
760.5	232.0	93900.	206.2
770.5	232.9	96224.	209.4
780.5	233.4	98556.	212.6
790.5	235.3	100894.	216.1
800.5	235.4	103247.	219.0
810.5	236.0	105603.	222.1
820.5	236.6	107965.	225.1
830.5	237.2	110333.	228.1
840.5	237.7	112707.	231.1
850.5	238.2	115087.	234.0
860.5	238.9	117473.	237.0
870.5	240.1	119867.	240.1

(1774)

T	Cp	H(T)-H(298)	S(T)-S(298)
880.5	241.3	122274.	243.1
890.5	242.9	124694.	246.3
900.5	244.6	127133.	249.4
901.5	245.1	127378.	249.8
903.5	245.5	127868.	250.5
905.5	246.5	128360.	251.3
907.5	247.2	128854.	252.0
909.5	248.2	129350.	252.8
911.5	248.9	129847.	253.5
913.5	249.8	130346.	254.3
915.5	250.8	130846.	255.1
917.5	251.6	131348.	255.8
919.5	252.4	131853.	256.6
921.5	253.1	132358.	257.3
923.5	253.5	132865.	257.9
925.5	254.0	133372.	258.6
927.5	254.3	133880.	259.2
929.5	254.7	134389.	259.9
931.5	254.7	134899.	260.4
933.5	254.7	135408.	261.0
935.5	254.9	135918.	261.6
937.5	254.7	136427.	262.1
939.5	254.8	136937.	262.6
941.5	254.9	137447.	263.2
943.5	254.7	137956.	263.7
945.5	254.7	138465.	264.2
947.5	254.7	138975.	264.8
949.5	254.4	139484.	265.2
951.5	254.3	139993.	265.7
953.5	254.3	140501.	266.3
955.5	254.2	141010.	266.8
957.5	254.3	141518.	267.3
959.5	254.1	142026.	267.8
961.5	253.8	142534.	268.3
963.5	254.0	143042.	268.8
965.5	253.6	143550.	269.3
967.5	253.7	144057.	269.8
969.5	253.9	144565.	270.4
971.5	253.8	145072.	270.9
973.5	253.8	145580.	271.4
975.5	253.8	146087.	271.9
977.5	253.6	146594.	272.4
979.5	253.9	147102.	273.0
981.5	253.6	147609.	273.4
983.5	253.7	148116.	274.0
985.5	253.5	148624.	274.5
987.5	253.7	149131.	275.0
989.5	253.6	149638.	275.5
991.5	253.5	150145.	276.0
993.5	253.8	150652.	276.6
995.5	253.7	151160.	277.0
997.5	253.5	151667.	277.5

Synthetic leucite SL.1			
T (K)	Cp (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	169.9	339.	1.3
310.0	172.7	2053.	7.6
320.0	175.3	3793.	13.8
330.0	177.8	5559.	19.8
340.0	180.1	7348.	25.8
350.0	182.4	9181.	31.6
360.0	184.5	10996.	37.3
370.0	186.6	12852.	42.9
380.0	188.6	14728.	48.4
390.0	190.6	16624.	53.8
400.0	192.4	18539.	59.1
410.0	193.3	20472.	64.1
420.0	195.4	22415.	69.3
430.0	197.3	24379.	74.4
440.0	199.1	26361.	79.4
450.0	201.0	28362.	84.4
460.0	202.8	30382.	89.3
470.0	204.5	32418.	94.1
480.0	206.5	34472.	98.9
490.0	208.1	36545.	103.6
500.0	209.5	38633.	108.2
510.0	210.9	40735.	112.7
520.0	212.4	42851.	117.2
530.0	214.0	44984.	121.6
540.0	215.1	47134.	125.9
550.0	216.5	49293.	130.2
560.0	217.8	51464.	134.5
570.0	219.1	53648.	138.7
580.0	220.0	55844.	142.7
590.0	221.2	58049.	146.8
600.0	222.3	60267.	150.8
610.0	223.3	62496.	154.7
620.0	224.6	64735.	158.7
630.0	226.2	66987.	162.7
640.0	226.8	69250.	166.4
650.0	228.2	71526.	170.3
660.0	229.5	73815.	174.1
670.0	232.5	76118.	178.4
680.0	233.8	78449.	182.1
690.0	235.2	80794.	185.9
700.0	236.3	83151.	189.5
710.0	237.5	85519.	193.2
720.0	238.4	87900.	196.8
730.0	239.9	90292.	200.4
740.0	240.9	92696.	204.0
750.0	242.1	95112.	207.5
760.0	243.3	97539.	211.0
771.0	244.3	100221.	214.6
781.0	245.2	102869.	218.0
791.0	245.4	105121.	221.2
801.0	246.6	107581.	224.6
802.0	246.7	107828.	224.9
803.0	246.8	108075.	225.2
804.0	247.1	108322.	225.6
805.0	247.3	108569.	226.0
806.0	247.7	108817.	226.4
807.0	247.5	109064.	226.6
808.0	247.7	109312.	227.0

(SL.1)

T	Cp	H(T)-H(298)	S(T)-S(298)
809.0	247.9	109560.	227.4
810.0	248.0	109808.	227.7
811.0	248.0	110056.	228.0
812.0	248.3	110304.	228.4
813.0	248.6	110552.	228.7
814.0	248.7	110801.	229.1
815.0	240.7	111050.	229.4
816.0	248.8	111298.	229.7
817.0	249.0	111547.	230.1
818.0	249.2	111796.	230.4
819.0	249.3	112046.	230.8
820.0	249.6	112295.	231.1
821.0	249.8	112545.	231.5
822.0	250.0	112795.	231.9
823.0	250.0	113045.	232.1
824.0	250.3	113295.	232.6
825.0	252.2	113545.	233.3
826.0	252.4	113798.	233.7
827.0	252.6	114050.	234.0
828.0	252.6	114303.	234.3
829.0	253.0	114556.	234.7
830.0	253.2	114809.	235.1
831.0	253.3	115062.	235.4
832.0	253.3	115316.	235.7
833.0	253.9	115569.	236.2
834.0	254.1	115823.	236.5
835.0	254.2	116077.	236.9
836.0	254.3	116331.	237.2
837.0	254.4	116586.	237.5
838.0	254.7	116840.	237.9
839.0	254.8	117095.	238.2
840.0	255.2	117350.	238.6
841.0	255.6	117605.	239.0
842.0	255.7	117861.	239.4
843.0	255.8	118117.	239.7
844.0	256.1	118373.	240.1
845.0	256.3	118629.	240.4
846.0	256.6	118885.	240.8
847.0	256.3	119142.	241.2
848.0	257.2	119399.	241.6
849.0	257.2	119656.	241.9
850.0	257.7	119914.	242.3
851.0	257.8	120172.	242.6
852.0	258.2	120430.	243.0
853.0	258.3	120688.	243.3
854.0	258.6	120946.	243.7
855.0	258.8	121205.	244.1
856.0	258.8	121464.	244.4
857.0	259.3	121723.	244.8
858.0	259.5	121982.	245.2
859.0	259.8	122242.	245.5
860.0	260.0	122502.	245.9
861.0	260.6	122762.	246.3
862.0	260.9	123023.	246.7
863.0	261.3	123284.	247.1
864.0	261.5	123545.	247.5
865.0	261.9	123807.	247.9
866.0	262.1	124069.	248.2
867.0	262.3	124331.	248.6
868.0	262.7	124594.	249.0

(SL.1)

T	Cp	H(T)-H(298)	S(T)-S(298)
869.0	263.1	124857.	249.4
870.0	263.4	125120.	249.8
871.0	263.8	125383.	250.2
872.0	264.0	125647.	250.5
873.0	264.5	125912.	250.9
874.0	264.9	126178.	251.3
875.0	265.3	126441.	251.8
876.0	265.7	126707.	252.2
877.0	266.2	126973.	252.6
878.0	266.8	127239.	253.0
879.0	267.2	127506.	253.4
880.0	267.6	127774.	253.9
881.0	268.1	128042.	254.3
882.0	268.5	128310.	254.7
883.0	269.0	128579.	255.1
884.0	269.7	128848.	255.6
885.0	270.3	129118.	256.0
886.0	270.7	129388.	256.5
887.0	271.2	129659.	256.9
888.0	271.9	129931.	257.3
889.0	272.4	130203.	257.8
890.0	273.1	130476.	258.3
891.0	273.8	130749.	258.7
892.0	274.5	131023.	259.2
893.0	275.0	131298.	259.7
894.0	275.7	131573.	260.2
895.0	276.5	131849.	260.8
896.0	277.4	132126.	261.2
897.0	278.1	132404.	261.7
898.0	278.8	132682.	262.2
899.0	279.6	132962.	262.7
900.0	280.7	133242.	263.2
901.0	281.6	133523.	263.8
902.0	282.3	133805.	264.3
903.0	283.5	134089.	264.9
904.0	284.4	134372.	265.4
905.0	285.3	134657.	266.0
906.0	286.4	134943.	266.6
907.0	287.5	135230.	267.2
908.0	288.6	135518.	267.7
909.0	289.7	135807.	268.3
910.0	290.7	136097.	268.9
911.0	291.7	136388.	269.5
912.0	292.8	136680.	270.1
913.0	293.6	136973.	270.6
914.0	294.8	137268.	271.2
915.0	295.1	137563.	271.6
916.0	295.5	137858.	272.0
917.0	296.1	138154.	272.5
918.0	296.5	138450.	272.9
919.0	296.5	138747.	273.3
920.0	296.3	139043.	273.5
921.0	296.0	139339.	273.8
922.0	295.4	139635.	274.0
923.0	294.2	139930.	274.0
924.0	292.8	140223.	274.0
925.0	291.1	140515.	273.9
926.0	289.5	140805.	273.8
927.0	287.9	141094.	273.7
928.0	286.3	141381.	273.6

(SL.1)

T	Cp	H(T)-H(298)	S(T)-S(298)
929.0	284.8	141667.	273.5
930.0	283.8	141951.	273.6
931.0	282.4	142234.	273.5
932.0	281.5	142516.	273.8
933.0	280.6	142797.	273.7
934.0	279.9	143077.	273.8
935.0	279.0	143357.	273.9
936.0	278.3	143636.	274.0
937.0	277.7	143914.	274.1
938.0	276.9	144191.	274.3
939.0	276.1	144467.	274.4
940.0	275.3	144743.	274.4
941.0	274.5	145018.	274.5
942.0	273.7	145292.	274.6
943.0	272.7	145565.	274.7
944.0	272.0	145837.	274.8
945.0	271.2	146109.	274.9
946.0	270.1	146380.	274.9
947.0	268.8	146649.	274.9
948.0	267.6	146917.	274.9
949.0	266.0	147184.	274.7
950.0	264.6	147450.	274.6
951.0	262.9	147713.	274.5
952.0	261.3	147975.	274.4
953.0	259.5	148236.	274.2
954.0	257.8	148494.	274.0
955.0	255.8	148751.	273.8
956.0	254.0	149006.	273.6
957.0	252.1	149259.	273.4
958.0	250.6	149510.	273.3
959.0	249.4	149760.	273.3
960.0	248.3	150009.	273.3
961.0	247.1	150257.	273.2
962.0	246.1	150503.	273.2
963.0	245.3	150749.	273.3
964.0	244.7	150994.	273.4
965.0	243.8	151238.	273.3
966.0	243.2	151482.	273.5
967.0	242.5	151725.	273.6
968.0	241.9	151967.	273.7
969.0	241.6	152208.	273.8
970.0	241.1	152450.	274.0
971.0	241.0	152691.	274.2
972.0	240.7	152932.	274.4
973.0	240.1	153172.	274.5
974.0	239.9	153412.	274.6
975.0	239.9	153652.	274.9
976.0	239.8	153892.	275.2
977.0	239.5	154131.	275.3
981.0	239.0	155089.	276.2
991.0	238.0	157475.	278.3

Iron leucite FL.1			
T (K)	Cp (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	177.4	354.	1.3
310.0	180.2	2143.	7.9
320.0	182.9	3959.	14.3
330.0	185.4	5800.	20.6
340.0	187.8	7687.	28.8
350.0	190.1	9558.	32.9
360.0	192.3	11468.	38.8
370.0	194.3	13401.	44.6
380.0	196.4	15355.	50.3
390.0	198.3	17328.	55.9
400.0	200.2	19320.	61.4
410.0	201.2	21331.	66.7
420.0	203.2	23353.	72.1
430.0	205.4	25398.	77.4
440.0	207.1	27458.	82.6
450.0	208.8	29538.	87.7
460.0	210.6	31638.	92.7
470.0	212.4	33751.	97.7
480.0	213.9	35882.	102.6
490.0	215.4	38029.	107.4
500.0	216.7	40191.	112.1
510.0	218.6	42369.	116.9
520.0	220.2	44563.	121.6
530.0	221.3	46772.	126.0
540.0	222.6	48994.	130.5
550.0	224.0	51227.	134.9
560.0	225.4	53476.	139.4
570.0	226.7	55737.	143.7
580.0	227.7	58009.	147.9
590.0	228.8	60292.	152.1
600.0	229.9	62588.	156.2
610.0	231.1	64891.	160.3
620.0	232.3	67209.	164.4
630.0	233.5	69539.	168.4
640.0	234.9	71881.	172.4
650.0	236.2	74237.	176.4
660.0	237.7	76607.	180.4
670.0	239.1	78991.	184.3
680.0	240.5	81388.	188.3
690.0	241.2	83795.	191.9
700.0	242.5	86213.	195.8
710.0	243.5	88644.	199.5
720.0	245.1	91087.	203.3
730.0	246.8	93545.	207.0
740.0	248.1	96019.	210.8
750.0	249.7	98508.	214.5
757.0	251.2	100261.	217.2
758.0	251.4	100512.	217.6
759.0	251.5	100764.	218.0
760.0	251.8	101016.	218.4
761.0	252.0	101267.	218.7
762.0	252.2	101519.	219.1
763.0	252.4	101772.	219.5
764.0	252.8	102024.	220.0
765.0	252.7	102277.	220.2
766.0	253.0	102530.	220.7
767.0	253.3	102783.	221.1
768.0	253.6	103036.	221.5

(FL.1)

T	Cp	H(T)-H(298)	S(T)-S(298)
769.0	253.7	103290.	221.8
770.0	254.0	103544.	222.2
771.0	254.3	103798.	222.6
772.0	254.6	104053.	223.0
773.0	254.7	104307.	223.4
774.0	255.0	104562.	223.8
775.0	255.2	104817.	224.2
776.0	255.6	105073.	224.6
777.0	255.8	105328.	225.0
778.0	256.1	105584.	225.4
779.0	256.4	105840.	225.8
780.0	256.8	106097.	226.2
781.0	257.1	106354.	226.6
782.0	257.5	106611.	227.1
783.0	257.9	106869.	227.5
784.0	258.2	107127.	227.9
785.0	258.5	107385.	228.3
786.0	259.2	107644.	228.8
787.0	259.4	107903.	229.2
788.0	259.6	108163.	229.6
789.0	260.0	108423.	230.0
790.0	260.3	108683.	230.3
791.0	261.5	108944.	231.0
792.0	262.0	109206.	231.4
793.0	262.7	109468.	232.0
794.0	263.3	109731.	232.5
795.0	264.1	109995.	233.0
796.0	264.9	110259.	233.5
797.0	265.6	110525.	234.0
798.0	266.5	110791.	234.6
799.0	267.4	111058.	235.2
800.0	268.2	111325.	235.7
801.0	269.0	111594.	236.2
802.0	269.5	111863.	236.7
803.0	270.3	112133.	237.2
804.0	272.1	112404.	238.0
805.0	274.2	112677.	238.8
806.0	276.6	112953.	239.8
807.0	279.2	113231.	240.7
808.0	282.3	113511.	241.9
809.0	285.1	113795.	243.0
810.0	288.2	114081.	244.1
811.0	291.4	114371.	245.2
812.0	295.4	114665.	246.5
813.0	300.0	114962.	248.1
814.0	305.3	115265.	249.7
815.0	311.6	115573.	251.7
816.0	318.4	115888.	253.6
817.0	327.9	116211.	256.3
818.0	340.1	116545.	259.9
819.0	355.5	116892.	264.1
820.0	376.0	117257.	269.5
821.0	399.0	117644.	275.3
822.0	431.3	118060.	283.8
823.0	462.8	118508.	292.7
824.0	460.9	118975.	294.1
825.0	386.9	119406.	276.6
826.0	312.5	119755.	257.7
827.0	279.8	120049.	249.8
828.0	263.9	120319.	245.9

(FL.1)

T	Cp	H(T)-H(298)	S(T)-S(298)
829.0	256.5	120578.	244.2
830.0	252.4	120833.	243.5
831.0	250.0	121084.	243.1
832.0	248.6	121333.	243.1
833.0	247.7	121581.	243.1
834.0	247.1	121829.	243.3
835.0	246.4	122076.	243.4
836.0	246.2	122322.	243.6
837.0	246.1	122568.	243.9
838.0	245.8	122814.	244.1
839.0	245.8	123060.	244.4
840.0	245.6	123305.	244.7
850.0	245.0	125758.	247.4
860.0	245.0	128208.	250.3
870.0	244.9	130656.	253.1
880.0	244.8	133103.	255.9
890.0	244.6	135550.	258.6
900.0	244.0	137993.	261.2
910.0	243.4	140430.	263.7
920.0	243.5	142866.	266.4
930.0	243.4	145300.	269.0
940.0	243.4	147735.	271.6
950.0	243.6	150170.	274.2
960.0	243.8	152607.	276.8
970.0	244.4	155048.	279.5
980.0	244.9	157493.	282.2
990.0	245.6	159945.	284.8

T (K)	(.86)KAISi208- Cp (J/gfw K)	(.14)KAISi308 SL.2 H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	158.0	315.	1.3
310.0	162.3	1917.	7.6
320.0	166.3	3560.	13.8
330.0	170.0	5242.	19.9
340.0	173.5	6959.	25.9
350.0	176.7	8710.	31.8
360.0	179.8	10493.	37.6
370.0	182.7	12306.	43.3
380.0	185.4	14148.	48.9
390.0	188.0	16014.	54.4
400.0	190.5	17907.	59.8
410.0	192.8	19823.	65.1
420.0	195.5	21764.	70.5
430.0	197.4	23727.	75.6
440.0	199.3	25711.	80.6
450.0	201.4	27715.	85.6
460.0	203.3	29739.	90.6
470.0	205.1	31781.	95.4
480.0	206.8	33842.	100.2
490.0	208.6	35919.	104.9
500.0	210.2	38013.	109.5
510.0	211.9	40124.	114.1
520.0	213.4	42251.	118.6
530.0	215.3	44396.	123.2
540.0	216.8	46556.	127.6
550.0	218.4	48732.	132.0
560.0	219.8	50923.	136.3
570.0	221.4	53130.	140.6
580.0	222.9	55351.	144.9
590.0	224.4	57588.	149.1
600.0	225.8	59839.	153.2
610.0	227.1	62105.	157.3
620.0	228.5	64383.	161.3
630.0	229.8	66675.	165.3
640.0	231.1	68980.	169.3
650.0	232.3	71297.	173.2
660.0	233.6	73627.	177.1
670.0	234.7	75968.	180.8
680.0	235.7	78320.	184.6
690.0	236.1	80675.	188.1
700.0	237.6	83043.	191.9
710.0	238.7	85423.	195.6
720.0	240.1	87817.	199.3
730.0	241.6	90225.	202.9
740.0	243.1	92649.	206.6
750.0	244.8	95088.	210.3
751.0	245.0	95333.	210.7
752.0	245.1	95578.	211.0
753.0	245.1	95823.	211.4
754.0	245.4	96088.	211.8
755.0	245.7	96314.	212.2
756.0	245.9	96560.	212.5
757.0	246.0	96806.	212.9
758.0	246.2	97052.	213.3
759.0	246.4	97298.	213.6
760.0	246.5	97545.	214.0
761.0	246.7	97791.	214.4
762.0	246.9	98038.	214.7

(SL.2)

T	Cp	H(T)-H(298)	S(T)-S(298)
763.0	247.1	98285.	215.1
764.0	247.4	98532.	215.5
765.0	247.5	98780.	215.9
766.0	247.7	99027.	216.3
767.0	247.9	99275.	216.6
768.0	248.1	99523.	217.0
769.0	248.3	99771.	217.4
770.0	248.4	100020.	217.7
771.0	248.6	100268.	218.1
772.0	248.8	100517.	218.5
773.0	248.9	100766.	218.8
774.0	249.3	101015.	219.2
775.0	249.5	101264.	219.6
776.0	249.7	101514.	220.0
777.0	249.8	101764.	220.3
778.0	250.2	102014.	220.7
779.0	250.3	102264.	221.1
780.0	250.6	102515.	221.5
781.0	250.7	102765.	221.8
782.0	251.0	103016.	222.2
783.0	251.4	103267.	222.6
784.0	251.6	103519.	223.0
785.0	251.9	103770.	223.4
786.0	252.3	104022.	223.8
787.0	252.4	104275.	224.2
788.0	252.5	104527.	224.5
789.0	252.8	104780.	224.9
790.0	253.1	105033.	225.1
791.0	255.9	105288.	226.3
792.0	256.3	105544.	226.7
793.0	256.5	105801.	227.1
794.0	256.9	106057.	227.6
795.0	257.3	106314.	228.0
796.0	257.7	106572.	228.4
797.0	258.1	106830.	228.8
798.0	258.7	107088.	229.3
799.0	259.1	107347.	229.7
800.0	259.8	107607.	230.2
801.0	260.4	107867.	230.7
802.0	260.5	108127.	231.0
803.0	261.0	108388.	231.5
804.0	261.8	108649.	232.0
805.0	262.4	108911.	232.5
806.0	263.0	109174.	233.0
807.0	263.5	109437.	233.4
808.0	264.0	109701.	233.9
809.0	264.8	109965.	234.4
810.0	265.5	110230.	234.9
811.0	265.9	110498.	235.3
812.0	266.4	110762.	235.8
813.0	267.2	111029.	236.3
814.0	267.8	111296.	236.8
815.0	268.5	111565.	237.3
816.0	269.3	111833.	237.8
817.0	270.1	112103.	238.4
818.0	270.7	112374.	238.8
819.0	271.4	112645.	239.3
820.0	272.3	112916.	239.9
821.0	273.1	113189.	240.4
822.0	273.9	113463.	241.0

(SL.2)

T	Cp	H(T)-H(298)	S(T)-S(298)
823.0	275.1	113737.	241.6
824.0	275.9	114013.	242.1
825.0	276.7	114289.	242.7
826.0	277.7	114566.	243.2
827.0	278.7	114845.	243.8
828.0	279.5	115124.	244.3
829.0	280.5	115404.	245.0
830.0	281.6	115685.	245.6
831.0	282.5	115967.	246.2
832.0	283.3	116250.	246.7
833.0	284.2	116533.	247.2
834.0	285.4	116818.	247.9
835.0	286.1	117104.	248.4
836.0	287.1	117390.	249.0
837.0	287.8	117678.	249.5
838.0	288.3	117968.	250.0
839.0	289.0	118255.	250.5
840.0	289.5	118544.	251.0
850.0	285.5	121431.	253.4
860.0	276.2	124248.	254.4
870.0	259.5	128914.	253.3
880.0	244.9	129427.	252.5
890.0	241.4	131853.	254.4
900.0	237.7	134247.	256.1
910.0	238.0	136625.	258.8
920.0	238.7	139009.	261.6
930.0	238.9	141398.	264.3
940.0	239.1	143787.	266.9
950.0	239.4	146181.	269.5
960.0	239.6	148576.	272.0
970.0	239.4	150970.	274.5
980.0	239.5	153366.	276.9
990.0	239.1	155761.	279.3

Orthorhombic KFeSiO_4 (α -KF)			
T (K)	C_p (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	166.8	334.	1.0
310.0	163.8	1987.	5.7
320.0	161.4	3612.	10.2
330.0	159.3	5218.	14.6
340.0	157.7	6800.	18.9
350.0	156.3	8370.	23.2
360.0	155.2	9927.	27.3
370.0	154.4	11475.	31.3
380.0	153.8	13018.	35.3
390.0	153.4	14551.	39.2
400.0	153.2	16084.	43.0
410.0	148.6	17614.	45.6
420.0	150.0	19106.	49.6
430.0	151.2	20613.	53.4
440.0	152.6	22132.	57.3
450.0	153.7	23663.	61.0
460.0	155.1	25208.	64.7
470.0	156.2	26764.	68.4
480.0	157.6	28333.	72.0
490.0	158.8	29915.	75.6
500.0	160.1	31510.	79.1
510.0	161.3	33117.	82.6
520.0	162.3	34735.	86.0
530.0	163.5	36364.	89.4
540.0	164.4	38004.	92.7
550.0	165.2	39652.	95.9
560.0	165.9	41307.	99.1
570.0	166.8	42971.	102.3
580.0	167.6	44643.	105.4
590.0	168.3	46322.	108.4
600.0	169.2	48010.	111.5
610.0	170.2	49706.	114.5
620.0	171.1	51411.	117.5
630.0	172.2	53126.	120.6
640.0	173.3	54855.	123.5
650.0	174.5	56594.	126.5
651.0	174.7	56789.	126.9
652.0	174.8	56944.	127.2
653.0	174.9	57118.	127.4
654.0	175.1	57293.	127.8
655.0	175.3	57469.	128.1
656.0	175.4	57644.	128.4
657.0	175.5	57819.	128.7
658.0	175.7	57995.	129.0
659.0	175.8	58171.	129.3
660.0	175.8	58347.	129.5
661.0	176.1	58523.	129.9
662.0	176.3	58699.	130.2
663.0	176.3	58875.	130.5
664.0	176.5	59051.	130.8
665.0	176.5	59228.	131.0
666.0	176.8	59405.	131.4
667.0	177.1	59582.	131.7
668.0	177.2	59759.	132.0
669.0	177.2	59936.	132.3
670.0	177.4	60113.	132.6
671.0	177.5	60291.	132.9
672.0	178.1	60469.	133.3

(alpha-KF)

T	Cp	H(T)-H(298)	S(T)-S(298)
673.0	178.1	60647.	133.6
674.0	178.1	60825.	133.8
675.0	178.3	61003.	134.1
676.0	178.5	61181.	134.5
677.0	178.6	61360.	134.8
678.0	178.9	61539.	135.1
679.0	179.2	61718.	135.4
680.0	179.4	61897.	135.8
681.0	179.3	62076.	136.0
682.0	179.3	62256.	136.3
683.0	179.6	62435.	136.6
684.0	179.6	62615.	136.9
685.0	179.9	62795.	137.2
686.0	180.0	62975.	137.5
687.0	180.3	63155.	137.8
688.0	180.6	63335.	138.1
689.0	180.7	63516.	138.4
690.0	180.8	63697.	138.7
691.0	181.1	63877.	139.1
692.0	181.3	64059.	139.4
693.0	181.5	64240.	139.7
694.0	181.9	64422.	140.0
695.0	182.0	64604.	140.3
696.0	182.1	64786.	140.6
697.0	182.4	64968.	140.9
698.0	182.7	65151.	141.3
699.0	183.0	65333.	141.6
700.0	183.2	65517.	141.9
701.0	183.5	65700.	142.3
702.0	183.6	65883.	142.6
703.0	183.9	66067.	142.9
704.0	184.1	66251.	143.2
705.0	184.4	66435.	143.6
706.0	184.7	66620.	143.9
707.0	184.9	66805.	144.2
708.0	185.2	66990.	144.5
709.0	185.3	67175.	144.8
710.0	185.6	67361.	145.1
711.0	185.9	67546.	145.5
712.0	186.2	67732.	145.8
713.0	186.3	67919.	146.1
714.0	186.5	68105.	146.4
715.0	186.8	68292.	146.8
716.0	187.0	68479.	147.1
717.0	187.2	68666.	147.4
718.0	187.5	68853.	147.7
719.0	187.6	69041.	148.0
720.0	187.9	69228.	148.3
721.0	187.9	69416.	148.6
722.0	188.1	69604.	148.9
723.0	188.2	69792.	149.2
724.0	188.4	69981.	149.5
725.0	188.5	70169.	149.8
726.0	188.6	70358.	150.1
727.0	188.6	70546.	150.3
728.0	188.7	70735.	150.6
729.0	188.7	70924.	150.9
730.0	188.7	71113.	151.1
731.0	188.6	71301.	151.4
732.0	188.6	71490.	151.6

(alpha-KF)

T	Cp	H(T)-H(298)	S(T)-S(298)
733.0	188.4	71678.	151.8
734.0	188.4	71887.	152.1
735.0	188.2	72055.	152.3
736.0	188.1	72243.	152.5
737.0	187.9	72431.	152.8
738.0	187.8	72619.	153.0
739.0	187.6	72807.	153.2
740.0	187.5	72994.	153.4
741.0	187.3	73182.	153.6
742.0	187.2	73389.	153.8
743.0	187.1	73556.	154.1
744.0	186.9	73743.	154.3
745.0	186.7	73930.	154.5
746.0	186.5	74116.	154.7
747.0	186.2	74303.	154.8
748.0	186.0	74489.	155.1
749.0	185.8	74675.	155.2
750.0	185.7	74861.	155.5
751.0	185.5	75048.	155.7
752.0	185.3	75232.	155.9
753.0	185.1	75417.	156.0
754.0	185.1	75602.	156.3
755.0	185.1	75787.	156.5
756.0	184.9	75972.	156.7
757.0	184.8	76157.	156.9
758.0	184.7	76342.	157.2
759.0	184.4	76528.	157.4
760.0	184.3	76711.	157.6
761.0	184.3	76895.	157.8
762.0	184.1	77079.	158.0
763.0	183.9	77263.	158.2
764.0	184.0	77447.	158.5
765.0	183.9	77631.	158.7
766.0	183.8	77815.	158.9
767.0	183.6	77999.	159.1
768.0	183.6	78182.	159.3
769.0	183.5	78366.	159.5
770.0	183.3	78549.	159.7
771.0	183.3	78732.	160.0
772.0	183.1	78916.	160.1
773.0	183.1	79099.	160.4
774.0	183.1	79282.	160.6
775.0	183.0	79465.	160.8
776.0	183.0	79648.	161.1
777.0	183.0	79831.	161.3
778.0	182.9	80014.	161.5
779.0	183.0	80197.	161.8
780.0	182.9	80380.	162.0
781.0	182.8	80563.	162.2
782.0	182.8	80745.	162.4
783.0	182.8	80928.	162.6
784.0	182.7	81111.	162.9
785.0	182.6	81294.	163.1
786.0	182.5	81476.	163.3
787.0	182.5	81659.	163.5
788.0	182.4	81841.	163.7
789.0	182.5	82024.	164.0
790.0	182.4	82208.	164.3
791.0	181.0	82387.	164.1
792.0	180.9	82568.	164.3

(alpha-KF)

T	Cp	H(T)-H(298)	S(T)-S(298)
793.0	180.9	82749.	184.5
794.0	180.8	82930.	184.7
795.0	180.7	83111.	184.9
796.0	180.7	83291.	185.1
797.0	180.6	83472.	185.3
798.0	180.5	83653.	185.5
799.0	180.4	83833.	185.7
800.0	180.6	84014.	186.0
801.0	180.8	84194.	186.3
802.0	180.3	84375.	186.4
803.0	180.4	84555.	186.8
804.0	180.2	84735.	186.8
805.0	180.3	84916.	187.1
806.0	180.3	85098.	187.3
807.0	180.3	85278.	187.5
808.0	180.2	85458.	187.7
809.0	180.0	85637.	187.9
810.0	180.2	85817.	188.1
811.0	180.1	85997.	188.3
812.0	179.9	86177.	188.5
813.0	179.9	86357.	188.7
814.0	180.0	86537.	189.0
815.0	179.8	86718.	189.2
816.0	179.7	86898.	189.4
817.0	179.7	87078.	189.6
818.0	179.9	87258.	189.8
819.0	179.8	87438.	170.0
820.0	179.6	87615.	170.2
821.0	179.7	87795.	170.4
822.0	179.8	87975.	170.7
823.0	179.8	88154.	170.9
824.0	179.7	88334.	171.1
825.0	179.7	88514.	171.3
826.0	179.7	88693.	171.5
827.0	179.9	88873.	171.8
828.0	179.7	89053.	172.0
829.0	179.8	89233.	172.2
830.0	179.7	89412.	172.4
840.0	179.7	91209.	174.6
850.0	179.8	93007.	176.7
860.0	180.4	94808.	179.0
870.0	180.8	96614.	181.2
880.0	181.4	98426.	183.4
890.0	182.1	100244.	185.6
900.0	182.3	102068.	187.8
910.0	183.4	103898.	190.0
920.0	183.7	105733.	192.1
930.0	183.7	107569.	194.1
940.0	184.3	109410.	196.2
950.0	184.8	111255.	198.2
960.0	185.0	113104.	200.3
970.0	185.0	114954.	202.2
980.0	185.5	116806.	204.2
990.0	186.2	118664.	206.2

Hexagonal KFeSiO ₄ (beta-KF)			
T (K)	C _p (J/gfw K)	H(T)-H(298) (J/gfw)	S(T)-S(298) (J/gfw K)
300.0	125.2	250.	1.0
310.0	128.1	1517.	5.9
320.0	130.8	2811.	10.6
330.0	133.2	4131.	15.3
340.0	135.5	5475.	19.9
350.0	137.6	6841.	24.4
360.0	139.5	8226.	28.8
370.0	141.3	9631.	33.1
380.0	143.0	11053.	37.3
390.0	144.6	12491.	41.4
400.0	146.1	13945.	45.5
410.0	147.9	15413.	49.6
420.0	149.1	16898.	53.4
430.0	150.1	18394.	57.2
440.0	151.1	19899.	60.9
450.0	152.0	21415.	64.5
460.0	152.9	22939.	68.1
470.0	153.9	24473.	71.7
480.0	154.9	26018.	75.2
490.0	155.8	27568.	78.6
500.0	156.5	29130.	81.9
510.0	157.5	30701.	85.3
520.0	158.4	32279.	88.5
530.0	159.8	33873.	92.0
540.0	160.6	35475.	95.2
550.0	161.4	37085.	98.3
560.0	162.0	38702.	101.4
570.0	162.7	40326.	104.5
580.0	163.4	41958.	107.5
590.0	163.9	43593.	110.4
600.0	164.5	45236.	113.3
610.0	165.1	46884.	116.2
620.0	165.7	48538.	119.0
630.0	166.2	50198.	121.8
640.0	166.6	51862.	124.5
650.0	167.1	53531.	127.2
660.0	167.7	55206.	129.9
670.0	168.2	56888.	132.6
680.0	168.7	58570.	135.2
690.0	169.5	60262.	137.9
700.0	170.0	61960.	140.5
710.0	170.6	63664.	143.0
720.0	171.2	65373.	145.6
730.0	171.7	67088.	148.1
740.0	172.3	68809.	150.6
750.0	172.9	70535.	153.0
760.0	173.3	72265.	155.4
770.0	173.9	74003.	157.8
780.0	174.2	75744.	160.2
790.0	174.6	77488.	162.5
800.0	175.3	79240.	164.8
810.0	175.4	80994.	167.1
820.0	176.0	82751.	169.4
830.0	176.1	84511.	171.5
840.0	176.1	86273.	173.6
850.0	176.4	88035.	175.8
860.0	176.8	89801.	177.9
870.0	177.4	91572.	180.2

(beta-KF)

T	Cp	H(T)-H(298)	S(T)-S(298)
880.0	178.1	93349.	182.4
890.0	178.8	95133.	184.5
900.0	179.4	96924.	186.8
910.0	178.3	98704.	188.4
920.0	178.1	100485.	190.2
930.0	178.8	102268.	192.4
940.0	178.9	104057.	194.3
950.0	180.0	105852.	196.5
960.0	180.2	107649.	198.7
970.0	180.8	109455.	200.4
980.0	182.8	111273.	202.8
990.0	183.3	113107.	204.8