

Table 34 Refrigerant Temperature ($t' = ^\circ\text{C}$) and Enthalpy ($h = \text{kJ/kg}$) of Lithium Bromide Solutions

Percent	LiBr	0	10	20	30	40	45	50	55	60	65	70
Temp. ($t = ^\circ\text{C}$)												
20	t'	20	19.1	17.7	15.0	9.8	5.8	-0.4	-7.7	-15.8	-23.4 [#]	-29.3 [#]
	h	84.0	67.4	52.6	40.4	33.5	33.5	38.9	53.2	78.0	111.0 [#]	145.0 [#]
30	t'	30.0	29.0	27.5	24.6	19.2	15.0	8.6	1.0	-7.3	-15.2 [#]	-21.6 [#]
	h	125.8	103.3	84.0	68.6	58.3	56.8	60.5	73.5	96.8	128.4 [#]	161.7 [#]
40	t'	40.0	38.9	37.3	34.3	28.5	24.1	17.5	9.8	1.3	-7.0 [#]	-14.0 [#]
	h	167.6	139.5	115.8	96.0	82.5	79.7	82.2	93.5	115.4	146.0 [#]	178.3 [#]
50	t'	50.0	48.8	47.2	44.0	37.9	33.3	26.5	18.5	9.9	1.3	-6.3 [#]
	h	209.3	175.2	147.0	123.4	106.7	102.6	103.8	114.0	134.5	163.5	195.0 [#]
60	t'	60.0	58.8	57.0	53.6	47.3	42.5	35.5	27.3	18.4	9.5	1.4 [#]
	h	251.1	211.7	179.1	151.4	131.7	125.8	125.8	134.7	153.7	181.4	211.9 [#]
70	t'	70.0	68.7	66.8	63.3	56.6	51.6	44.4	36.1	27.0	17.7	9.0 [#]
	h	293.0	247.7	210.5	178.8	155.7	148.9	148.0	155.6	173.2	199.4	228.8 [#]
80	t'	80.0	78.6	76.7	73.0	66.0	60.8	53.4	44.8	35.6	26.0	16.7 [#]
	h	334.9	287.8	243.6	207.3	181.0	172.8	170.0	176.2	192.6	217.2	245.7 [#]
90	t'	90.0	88.6	86.5	82.6	75.4	70.0	62.3	53.6	44.1	34.2	24.3 [#]
	h	376.9	321.1	275.6	235.4	206.1	195.8	192.3	197.1	212.2	235.6	262.9 [#]
100	t'	100.0	98.5	96.3	92.3	84.7	79.1	71.3	62.4	52.7	42.4	32.0
	h	419.0	357.6	307.9	263.8	231.0	219.9	214.6	218.2	231.5	253.5	279.7
110	t'	110.0	108.4	106.2	101.9	94.1	88.3	80.2	71.1	61.3	50.6	39.7
	h	461.3	394.3	340.1	292.4	255.9	243.3	236.8	239.1	251.0	271.4	296.3
120	t'	120.0*	118.3*	116.0*	111.6	103.4	97.5	89.2	79.9	69.8	58.9	47.3
	h	503.7*	431.0*	372.5*	320.9	281.0	267.0	259.0	260.0	270.2	289.5	313.4
130	t'	130.0*	128.3*	125.8*	121.3*	112.8	106.7	92.8	88.7	78.4	67.1	55.0
	h	546.5*	468.0*	404.5*	349.6*	306.2	290.7	281.0	280.4	289.1	306.9	330.2
140	t'	140.0*	138.2*	135.7*	130.9*	122.2*	115.8	107.1	97.4	87.0	75.3	62.7
	h	589.1*	505.6*	437.8*	377.9*	331.3*	314.2	303.2	301.1	308.1	324.7	346.9
150	t'	150.0*	148.1*	145.5*	140.6*	131.5*	125.0*	116.1*	106.2	95.5	83.5	70.3
	h	632.2*	542.7*	470.5*	406.8*	356.6*	337.8*	325.5*	321.6	327.3	342.7	363.6
160	t'	160.0*	158.1*	155.3*	150.3*	140.9*	134.2*	125.0*	115.0	104.1	91.8	78.0
	h	675.6*	580.8*	503.1*	435.4*	381.9*	361.2*	347.7*	342.2	346.1	360.3	380.1
170	t'	170.0*	168.0*	165.2*	159.9*	150.3*	143.3*	134.0*	123.7	112.7	100.0	85.7
	h	719.2*	618.9*	536.1*	464.3*	406.8*	384.9*	369.9*	362.9	365.4	378.3	396.0
180	t'	180.0*	177.9*	175.0*	169.6*	159.6*	152.5*	142.9*	132.5*	121.2*	108.2	93.3
	h	763.2*	657.1*	569.4*	493.4*	432.1*	408.8*	392.1*	383.4*	384.3*	395.8	411.3

* Extensions of data above 115°C are well above the original data and should be used with care.

[#] Super saturated solution.

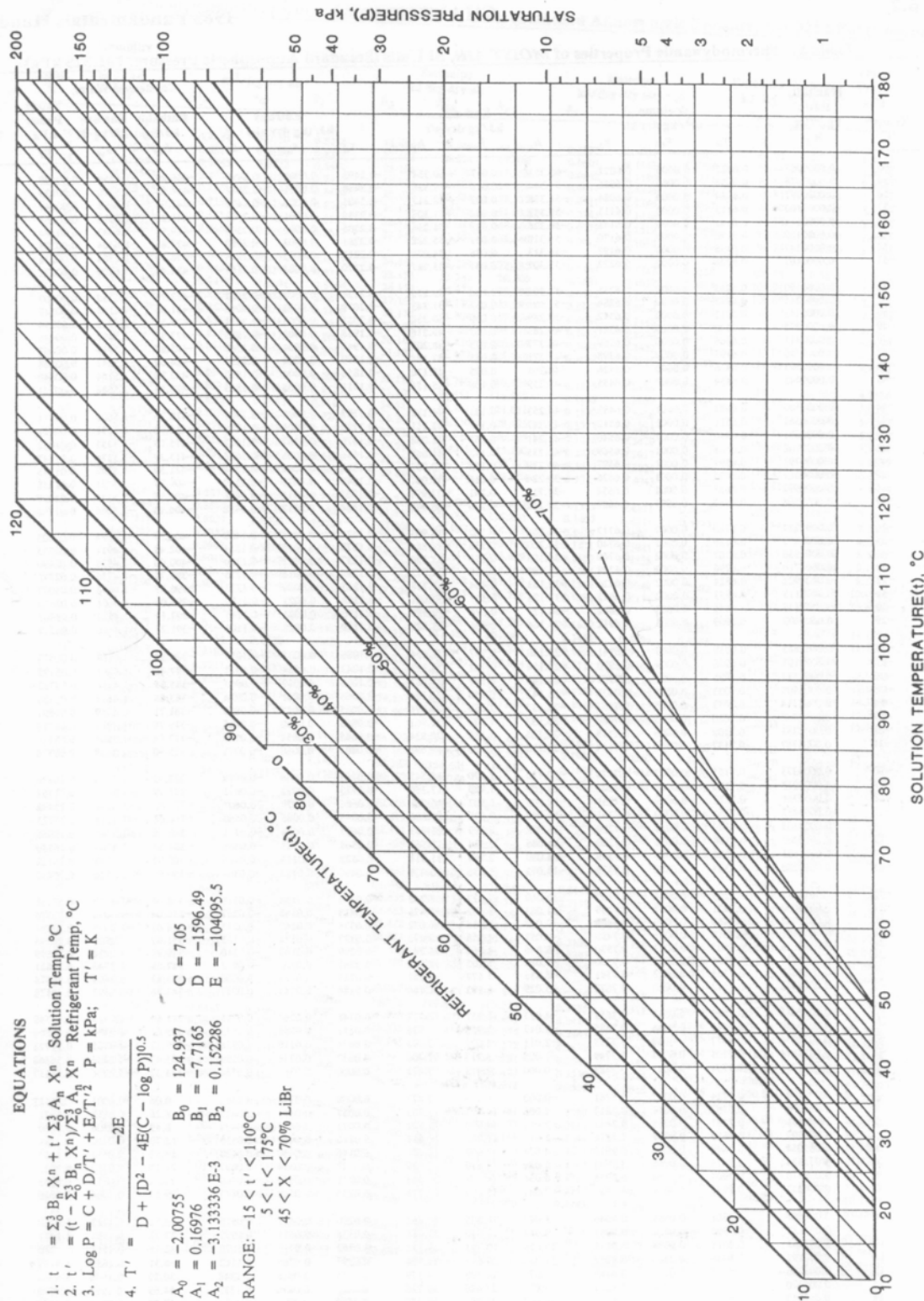


Fig. 34 Equilibrium Chart for Lithium Bromide-Water Solutions