

Isochore and sub-isochore (Fig.4)

H₂O-NaCl fluids (liquid vapour and solid)

reference: Bakker RJ (2018) Computers and Geosciences

AqSo_NaCl: computer program to calculate p-T-V-x properties in the H₂O-NaCl system applied to fluid inclusion research and pore fluid calculation

Molar Volume = 29 cm³/mol

Density = 0.7606138 g/cm³

x(NaCl) = 0.1

Homogenization conditions: 490.2973 Celsius and 51.32651 MPa

SLV intersection conditions: 27.89442 Celsius and 0.0022865 MPa

Definition quartz phase: 0 = alpha; 1 = beta

Temp.	Pres.	liquid phase			vapour phase			solid phase		Q
		x(NaCl) fraction	V _m cm ³ /mol	vol. frac	x(NaCl) fraction	V _m cm ³ /mol	vol. frac	V _m cm ³ /mol	vol. frac	
20	0.0013537	0.0995878	18.36391	0.6329443	1.42E-22	1.80E+06	0.366629	26.98895	0.0004267	0
25	0.0018914	0.0998387	18.40253	0.6344506	2.89E-21	1.31E+06	0.3653817	27.00455	0.0001677	0
26	0.0020203	0.0998933	18.41038	0.6347593	5.05E-21	1.23E+06	0.3651295	27.00768	0.0001112	0
27	0.0021571	0.0999495	18.41826	0.6350703	8.69E-21	1.16E+06	0.3648764	27.01082	0.0000532	0
28	0.0023023	0.100001	18.42615	0.6353783	1.47E-20	1.09E+06	0.3646217	0	0	0
29	0.0024572	0.100001	18.43376	0.6356403	2.47E-20	1.02E+06	0.3643597	0	0	0
30	0.0026215	0.1000011	18.4414	0.6359035	4.07E-20	960424.7	0.3640965	0	0	0
40	0.004885	0.100002	18.51978	0.6386006	2.65E-18	532064.6	0.3613994	0	0	0
50	0.0086689	0.1000034	18.6018	0.64142	5.55E-17	309130.3	0.35858	0	0	0
60	0.0146267	0.1000055	18.68767	0.6443673	5.91E-16	188664.1	0.3556327	0	0	0
70	0.0235423	0.1000085	18.77757	0.6474475	4.20E-15	120557	0.3525525	0	0	0
80	0.0363537	0.1000126	18.87168	0.6506653	2.31E-14	80200.88	0.3493347	0	0	0
90	0.0541912	0.1000182	18.97016	0.6540246	1.05E-13	55204.74	0.3459754	0	0	0
100	0.0784203	0.1000254	19.07318	0.6575289	4.19E-13	39097.14	0.3424711	0	0	0
120	0.152962	0.1000463	19.29351	0.6649855	4.83E-12	20979.09	0.3350145	0	0	0
130	0.2075717	0.1000608	19.41118	0.6689439	1.44E-11	15787.46	0.3310561	0	0	0
140	0.2772296	0.1000787	19.53409	0.6730597	3.96E-11	12056.09	0.3269403	0	0	0
150	0.3650513	0.1001004	19.66247	0.6773359	1.02E-10	9326.02	0.3226641	0	0	0
160	0.4745604	0.1001266	19.79654	0.681776	2.44E-10	7297.626	0.318224	0	0	0
170	0.6096833	0.1001579	19.93654	0.6863833	5.53E-10	5770.183	0.3136167	0	0	0
180	0.7747335	0.1001948	20.08274	0.6911618	1.18E-09	4606.152	0.3088382	0	0	0
190	0.9743868	0.1002381	20.23543	0.6961158	2.40E-09	3709.449	0.3038842	0	0	0
200	1.213648	0.1002885	20.39492	0.7012501	4.67E-09	3011.818	0.2987499	0	0	0
210	1.49781	0.1003465	20.56154	0.70657	8.74E-09	2464.063	0.29343	0	0	0
220	1.832413	0.100413	20.73564	0.7120816	1.58E-08	2030.276	0.2879184	0	0	0
230	2.223192	0.1004884	20.91762	0.7177916	2.76E-08	1683.948	0.2822084	0	0	0
240	2.676029	0.1005734	21.10786	0.7237073	4.72E-08	1405.313	0.2762927	0	0	0
250	3.196899	0.1006687	21.3068	0.7298368	7.91E-08	1179.496	0.2701632	0	0	0
260	3.791817	0.1007747	21.51488	0.7361893	1.30E-07	995.2078	0.2638107	0	0	0
270	4.466773	0.1008919	21.73258	0.7427744	2.12E-07	843.8155	0.2572256	0	0	0
280	5.227655	0.1010207	21.96037	0.7496028	3.44E-07	718.6688	0.2503972	0	0	0
290	6.080152	0.1011614	22.19875	0.7566861	5.54E-07	614.6125	0.2433139	0	0	0
300	7.029611	0.1013139	22.44822	0.7640374	8.94E-07	527.6287	0.2359626	0	0	0
310	8.080821	0.1014782	22.70927	0.7716715	1.45E-06	454.5722	0.2283285	0	0	0
320	9.237682	0.1016533	22.9824	0.7796073	2.36E-06	392.9753	0.2203927	0	0	0
330	10.5027	0.1018377	23.26811	0.7878699	3.87E-06	340.9023	0.2121301	0	0	0
340	11.87626	0.1020283	23.56695	0.7964966	6.40E-06	296.8396	0.2035034	0	0	0
350	13.35599	0.1022203	23.87952	0.8055444	0.0000106	259.5993	0.1944556	0	0	0
360	14.93876	0.1024063	24.2065	0.8150899	0.0000176	228.1698	0.1849101	0	0	0
370	no	conversion								
380	18.49492	0.102758	24.90149	0.8356152	0.0000463	177.5361	0.1643848	0	0	0
390	20.63343	0.1029736	25.259	0.8458278	0.0000823	154.7044	0.1541722	0	0	0
400	22.93103	0.1031701	25.62503	0.8564318	0.0001488	135.3055	0.1435682	0	0	0
410	25.2717	0.1032689	26.00741	0.8683505	0.0002503	120.3179	0.1316495	0	0	0
420	27.7449	0.1032843	26.3998	0.8812763	0.0004046	107.8496	0.1187237	0	0	0
430	30.44722	0.1032394	26.79184	0.8946838	0.0006522	96.7211	0.1053162	0	0	0
440	33.43174	0.1031371	27.1741	0.9082383	0.0010668	86.58207	0.0917617	0	0	0
450	36.6939	0.102952	27.54198	0.9220177	0.0017618	77.52103	0.0779823	0	0	0

460	40.17218	0.1026264	27.89863	0.9366939	0.0028673	69.73215	0.0633061	0	0	0
470	43.78478	0.1020827	28.25282	0.9534478	0.0044746	63.27097	0.0465522	0	0	0
480	47.47333	0.1012433	28.61379	0.9737195	0.006608	58.01006	0.0262805	0	0	0
490	51.21455	0.1000419	28.98859	0.9991449	0.0092732	53.71147	0.0008551	0	0	0
491	51.7777	0.1	29	1	0	0	0	0	0	0
500	57.57987	0.1	29	1	0	0	0	0	0	0
510	64.07692	0.1	29	1	0	0	0	0	0	0
520	70.62436	0.1	29	1	0	0	0	0	0	0
530	77.21973	0.1	29	1	0	0	0	0	0	0
540	83.86087	0.1	29	1	0	0	0	0	0	0
550	90.5458	0.1	29	1	0	0	0	0	0	0
560	97.27274	0.1	29	1	0	0	0	0	0	0
570	104.0401	0.1	29	1	0	0	0	0	0	0
580	110.8465	0.1	29	1	0	0	0	0	0	0
590	117.6906	0.1	29	1	0	0	0	0	0	0
600	124.5713	0.1	29	1	0	0	0	0	0	0
610	131.4876	0.1	29	1	0	0	0	0	0	1
620	138.4384	0.1	29	1	0	0	0	0	0	1
630	145.4229	0.1	29	1	0	0	0	0	0	1
640	152.4403	0.1	29	1	0	0	0	0	0	1
650	159.4899	0.1	29	1	0	0	0	0	0	1
660	166.5708	0.1	29	1	0	0	0	0	0	1
670	173.6824	0.1	29	1	0	0	0	0	0	1
680	180.824	0.1	29	1	0	0	0	0	0	1
690	187.9949	0.1	29	1	0	0	0	0	0	1
700	195.1944	0.1	29	1	0	0	0	0	0	1

Isochore and sub-isochore corrected for modifications in quartz volume (Fig. 5a)

H₂O-NaCl fluids (liquid vapour and solid)

reference: Bakker RJ (2018) Computers and Geosciences

AqSo_NaCl: computer program to calculate p-T-V-x properties in the H₂O-NaCl system applied to fluid inclusion research and pore fluid calculation

Molar Volume = 28 cm³/mol

Density = 1.365321 g/cm³

x(NaCl) = 0.5

Homogenization conditions: 625.8161 Celsius and 142.6436 MPa

SLV intersection conditions: 545.1787 Celsius and 36.96839 MPa

Definition quartz phase: 0 = alpha; 1 = beta

Temp.	Pres.	liquid phase			vapour phase			solid phase		Q
		x(NaCl) fraction	V _m cm ³ /mol	vol. frac	x(NaCl) fraction	V _m cm ³ /mol	vol. frac	V _m cm ³ /mol	vol. frac	
°Celsius	MPa									
540	36.54117	0.3699956	27.20788	0.7803933	0.000273	136.9526	0.0026188	29.02132	0.216988	0
550	40.3678	0.3848464	27.35875	0.8034247	0	0	0	29.06515	0.1965753	0
560	47.7761	0.3998361	27.43862	0.8247549	0	0	0	29.10329	0.1752451	0
570	55.68583	0.4152015	27.53007	0.8478027	0	0	0	29.14079	0.1521973	0
580	63.80638	0.4309535	27.64097	0.8727737	0	0	0	29.17811	0.1272263	0
588	68.72954	0.4440693	27.7724	0.8947305	0	0	0	29.2108	0.1052695	0
588.1	68.74309	0.444242	27.77491	0.8950283	0	0	0	29.21129	0.1049717	0
588.2	68.75307	0.4444152	27.77748	0.8953273	0	0	0	29.21179	0.1046727	0
588.3	68.75914	0.444589	27.78011	0.8956278	0	0	0	29.21229	0.1043722	0
588.4	68.76095	0.4447636	27.78282	0.8959298	0	0	0	29.2128	0.1040702	0
588.5	68.75807	0.4449388	27.78561	0.8962334	0	0	0	29.21332	0.1037666	0
588.6	68.74999	0.4451149	27.78848	0.8965389	0	0	0	29.21385	0.1034611	0
588.7	68.73613	0.4452919	27.79145	0.8968462	0	0	0	29.21439	0.1031538	0
588.8	68.71796	0.4454696	27.7945	0.8971552	0	0	0	29.21494	0.1028448	0
588.9	68.69062	0.4456487	27.79769	0.8974671	0	0	0	29.2155	0.1025329	0
589	68.65493	0.445829	27.80103	0.8977817	0	0	0	29.21608	0.1022183	0
589.1	68.60955	0.4460109	27.80453	0.8980995	0	0	0	29.21667	0.1019005	0
589.2	68.55497	0.4461941	27.80818	0.8984204	0	0	0	29.21728	0.1015796	0
589.3	68.48504	0.4463797	27.81209	0.898746	0	0	0	29.21792	0.101254	0
589.4	68.40033	0.4465675	27.81625	0.8990764	0	0	0	29.21858	0.1009236	0
589.5	68.29307	0.4467586	27.82078	0.8994137	0	0	0	29.21928	0.1005863	0
589.6	68.15997	0.4469537	27.82575	0.8997591	0	0	0	29.22003	0.1002409	0
589.7	67.98783	0.4471545	27.83138	0.9001164	0	0	0	29.22084	0.0998836	0
589.8	67.75614	0.4473642	27.838	0.9004918	0	0	0	29.22176	0.0995082	0
589.9	67.40783	0.4475912	27.8466	0.9009024	0	0	0	29.22287	0.0990976	0
590	63.46945	0.448346	27.91701	0.9023907	0	0	0	29.23018	0.0976093	1
590.1	63.61102	0.4485017	27.91727	0.9026563	0	0	0	29.23045	0.0973437	1
590.2	63.75261	0.4486575	27.91753	0.9029222	0	0	0	29.23073	0.0970778	1
590.3	63.89609	0.448813	27.91777	0.9031877	0	0	0	29.231	0.0968123	1
590.4	64.03823	0.4489687	27.91803	0.9034538	0	0	0	29.23127	0.0965462	1
590.5	64.1801	0.4491245	27.91831	0.9037202	0	0	0	29.23154	0.0962798	1
590.6	64.32341	0.4492801	27.91856	0.9039864	0	0	0	29.23181	0.0960136	1
590.7	64.46702	0.4494357	27.91882	0.9042527	0	0	0	29.23208	0.0957473	1
590.8	64.61093	0.4495912	27.91907	0.9045191	0	0	0	29.23235	0.0954809	1
590.9	64.75514	0.4497468	27.91932	0.9047857	0	0	0	29.23262	0.0952143	1
600	79.2804	0.4637668	27.94266	0.9294814	0	0	0	29.2546	0.0705186	1
610	99.17313	0.478653	27.96762	0.9572265	0	0	0	29.27177	0.0427735	1
620	124.6046	0.4925682	27.98963	0.9846898	0	0	0	29.27894	0.0153102	1
630	150.4241	0.5	27.99648	1	0	0	0	0	0	1
640	170.0214	0.5	27.98781	1	0	0	0	0	0	1
650	191.3044	0.5	27.97878	1	0	0	0	0	0	1
660	214.7017	0.5	27.96919	1	0	0	0	0	0	1
670	240.7565	0.5	27.95881	1	0	0	0	0	0	1

Isochore and sub-isochore not corrected for modifications in quartz volume (Fig. 5a)

H₂O-NaCl fluids (liquid vapour and solid)

reference: Bakker RJ (2018) Computers and Geosciences

AqSo_NaCl: computer program to calculate p-T-V-x properties in the H₂O-NaCl system applied to fluid inclusion research and pore fluid calculation

Molar Volume = 28 cm³/mol

Density = 1.365321 g/cm³

x(NaCl) = 0.5

Homogenization conditions: 625.8161 Celsius and 142.6436 MPa

SLV intersection conditions: 565.3914 Celsius and 38.27447 MPa

Definition quartz phase: 0 = alpha; 1 = beta

Temp.	Pres.	liquid phase			vapour phase			solid phase		Q
		x(NaCl) fraction	V _m cm ³ /mol	vol. frac	x(NaCl) fraction	V _m cm ³ /mol	vol. frac	V _m cm ³ /mol	vol. frac	
°Celsius	MPa	fraction	cm ³ /mol	fraction	fraction	cm ³ /mol	fraction	cm ³ /mol	fraction	
540	36.54117	0.3699956	27.20788	0.7653775	0.000273	136.9526	0.0184467	29.02132	0.2161757	0
550	37.33353	0.3851384	27.43269	0.7929678	0.0002791	137.5364	0.0115547	29.07018	0.1954775	0
560	37.98522	0.4008956	27.66455	0.8231862	0.0002818	138.7253	0.0041897	29.1197	0.1726241	0
570	42.64961	0.4167751	27.80645	0.851376	0	0	0	29.16284	0.148624	0
580	53.30524	0.4323557	27.83819	0.875743	0	0	0	29.19604	0.124257	0
590	66.04527	0.4479672	27.87244	0.9016171	0	0	0	29.22574	0.0983829	0
600	81.62444	0.463392	27.90844	0.9287319	0	0	0	29.25052	0.0712681	1
610	101.0265	0.4783337	27.94503	0.9565855	0	0	0	29.26852	0.0434145	1
620	125.4994	0.4924037	27.98059	0.9843521	0	0	0	29.27736	0.0156479	1
630	149.9007	0.5	28	1	0	0	0	0	0	1
640	167.9995	0.5	28	1	0	0	0	0	0	1
650	187.3453	0.5	28	1	0	0	0	0	0	1
660	208.1905	0.5	28	1	0	0	0	0	0	1
670	230.8211	0.5	28	1	0	0	0	0	0	1
680	255.5576	0.5	28	1	0	0	0	0	0	1

Sub-isochores (Fig. 5b)

H₂O-NaCl fluids (liquid vapour and solid)

reference: Bakker RJ (2018) Computers and Geosciences

AqSo_NaCl: computer program to calculate p-T-V-x properties in the H₂O-NaCl system applied to fluid inclusion research and pore fluid calculation

Molar Volume = 200 cm³/mol

Density = 0.120396 g/cm³

x(NaCl) = 0.15

Homogenization conditions are not included

SLV intersection conditions: 694.0954 Celsius and 29.55061 MPa

SLV intersection conditions: 685.0399 Celsius and 31.20197 MPa

SLV intersection conditions: 395.3223 Celsius and 16.94201 MPa

Definition quartz phase: 0 = alpha; 1 = beta

Temp. °C	Pres. MPa	liquid phase			vapour phase			solid phase		Q
		x(NaCl) fraction	V _m cm ³ /mol	vol. frac fraction	x(NaCl) fraction	V _m cm ³ /mol	vol. frac fraction	V _m cm ³ /mol	vol. frac fraction	
10	0.0006924	0.0992049	18.28974	0.0862866	2.703063e-25	3.398409e6	0.9061119	26.95797	0.00756015	0
20	0.0013537	0.0995878	18.36391	0.0866685	1.423773e-22	1.799268e6	0.9057747	26.98895	0.0075568	0
30	0.0026193	0.1001267	18.44216	0.0870809	4.019775e-20	961211.5	0.9054286	27.02024	0.0074905	0
40	0.0048638	0.100807	18.52445	0.0875202	2.498140e-18	534385.4	0.9050749	27.05184	0.0074049	0
50	0.0086064	0.1016162	18.61085	0.0879825	5.081960e-17	311377.8	0.9047154	27.08376	0.0073021	0
60	0.0144852	0.1025431	18.70144	0.0884637	5.308652e-16	190514.5	0.9043522	27.11598	0.0071841	0
70	0.0232559	0.1035786	18.79631	0.0889594	3.717519e-15	122049.6	0.9039879	27.14853	0.0070527	0
80	0.0358084	0.104715	18.8955	0.0894645	2.007071e-14	81431.09	0.9036259	27.18139	0.0069097	0
90	0.0531943	0.1059462	18.99907	0.0899733	9.010214e-14	56249.08	0.90327	27.21457	0.0067567	0
100	0.0766605	0.1072679	19.10707	0.0904793	3.514513e-13	40005.6	0.9029254	27.24806	0.0065953	0
110	0.1076843	0.108677	19.21951	0.0909749	1.224200e-12	29158.23	0.902598	27.28187	0.0064271	0
120	0.1480065	0.110172	19.33644	0.091451	3.877098e-12	21695.13	0.9022951	27.316	0.0062539	0
130	0.1996592	0.1117528	19.45787	0.0918974	1.130252e-11	16428.11	0.9020253	27.35045	0.0060774	0
140	0.2649862	0.1134206	19.58385	0.0923019	3.059775e-11	12629.46	0.9017985	27.38522	0.0058996	0
150	0.346654	0.1151778	19.7144	0.0926509	7.743987e-11	9838.564	0.9016264	27.4203	0.0057227	0
160	0.4476529	0.1170283	19.84957	0.0929284	1.842399e-10	7755.064	0.9015223	27.45569	0.0055492	0
170	0.5712858	0.1189769	19.9894	0.0931168	4.140402e-10	6177.897	0.9015013	27.49139	0.005382	0
180	0.7211468	0.1210297	20.13392	0.0931957	8.828598e-10	4969.312	0.9015802	27.5274	0.0052241	0
190	0.9010874	0.1231938	20.28317	0.0931428	1.793958e-9	4033	0.9017778	27.56372	0.0050794	0
200	1.115172	0.1254775	20.43718	0.0929329	3.488547e-9	3300.427	0.902115	27.60034	0.0049521	0
210	1.367623	0.12789	20.59596	0.0925381	6.519220e-9	2722.062	0.9026147	27.63726	0.0048472	0
220	1.662757	0.1304413	20.75952	0.0919277	1.175532e-8	2261.626	0.9033018	27.67447	0.0047705	0
230	2.004914	0.1331423	20.92783	0.0910678	2.053458e-8	1892.222	0.9042037	27.71197	0.0047285	0
240	2.398373	0.136005	21.10084	0.0899214	3.488410e-8	1593.698	0.9053497	27.74976	0.0047289	0
250	2.847274	0.1390418	21.27849	0.0884477	5.784812e-8	1350.807	0.9067715	27.78783	0.0047809	0
260	3.355527	0.142266	21.46065	0.0866026	9.398356e-8	1151.917	0.9085028	27.82617	0.0048946	0
270	3.92672	0.1456913	21.64718	0.0843386	1.501216e-7	988.791	0.9105794	27.86479	0.0050819	0
280	4.56403	0.1493322	21.83788	0.0816046	2.365514e-7	852.3569	0.9130388	27.90368	0.0053567	0
290	5.270133	0.1532036	22.03249	0.0783464	3.688709e-7	739.3391	0.9159193	27.94283	0.0057343	0
300	6.047119	0.1573207	22.23074	0.0745078	5.708744e-7	644.7756	0.9192597	27.98224	0.0062324	0
310	6.896404	0.161699	22.43227	0.0700312	8.790270e-7	565.3074	0.9230981	28.02191	0.0068707	0
320	7.818661	0.1663545	22.63669	0.0648598	1.349297e-6	498.265	0.9274695	28.06185	0.0076707	0
330	8.813747	0.171303	22.84357	0.0589401	2.067356e-6	441.5142	0.9324043	28.10204	0.0086556	0
340	9.880643	0.1765608	23.05241	0.0522248	3.163311e-6	393.3389	0.9379254	28.14249	0.0098498	0
350	11.01741	0.1821439	23.26273	0.0446775	4.921712e-6	352.3512	0.9440445	28.18321	0.011278	0
360	12.22113	0.1880683	23.47399	0.0362769	7.353896e-6	317.4214	0.9507587	28.22419	0.0129644	0
370										
380	14.81286	0.2010048	23.89731	0.0169369	0.0000159	262.1945	0.9658671	28.30698	0.017196	0
390	16.19005	0.2080482	24.1084	0.0060729	0.0000231	240.4962	0.9741538	28.3488	0.0197733	0
400	17.20586	0	0	0	0.0000284	230.2781	0.9787098	28.39151	0.0212902	0
410	17.76259	0	0	0	0.0000289	230.2703	0.9786771	28.43525	0.0213229	0

420	18.3102	0	0	0	0.0000291	230.2625	0.978644	28.47939	0.021356	0
430	18.84966	0	0	0	0.0000289	230.2547	0.9786106	28.52394	0.0213894	0
440	19.38178	0	0	0	0.0000283	230.2468	0.9785768	28.56889	0.0214232	0
450	19.90725	0	0	0	0.0000275	230.239	0.9785427	28.61425	0.0214573	0
460	20.42669	0	0	0	0.0000265	230.2311	0.9785082	28.66002	0.0214918	0
470	20.94064	0	0	0	0.0000256	230.2232	0.9784735	28.7062	0.0215265	0
480	21.44954	0	0	0	0.0000248	230.2151	0.9784384	28.7528	0.0215616	0
490	21.95383	0	0	0	0.0000242	230.2069	0.9784031	28.79981	0.0215969	0
500	22.45386	0	0	0	0.0000239	230.1986	0.9783675	28.84725	0.0216325	0
510	22.94995	0	0	0	0.000024	230.1901	0.9783316	28.89511	0.0216684	0
520	23.44239	0	0	0	0.0000244	230.1815	0.9782955	28.94339	0.0217045	0
530	23.93145	0	0	0	0.0000251	230.1728	0.978259	28.9921	0.021741	0
540	24.41735	0	0	0	0.0000262	230.1639	0.9782223	29.04125	0.0217777	0
550	24.90031	0	0	0	0.0000275	230.1549	0.9781853	29.09082	0.0218147	0
560	25.38049	0	0	0	0.0000293	230.1457	0.978148	29.14084	0.021852	0
570	25.85808	0	0	0	0.0000313	230.1364	0.9781104	29.1913	0.0218896	0
580	26.3332	0	0	0	0.0000338	230.1269	0.9780726	29.2422	0.0219274	1
590	26.80601	0	0	0	0.0000367	230.1173	0.9780344	29.29355	0.0219656	1
600	27.27661	0	0	0	0.0000401	230.1075	0.977996	29.34535	0.022004	1
610	27.74511	0	0	0	0.000044	230.0975	0.9779573	29.3976	0.0220427	1
620	28.21162	0	0	0	0.0000484	230.0873	0.9779183	29.45031	0.0220817	1
630	28.6762	0	0	0	0.0000536	230.0769	0.9778791	29.50348	0.0221209	1
640	29.13894	0	0	0	0.0000594	230.0662	0.9778396	29.55712	0.0221604	1
650	29.59991	0	0	0	0.000066	230.0554	0.9777999	29.61123	0.0222001	1
660	30.05917	0	0	0	0.0000736	230.0442	0.9777599	29.6658	0.0222401	1
670	30.51677	0	0	0	0.0000821	230.0328	0.9777197	29.72086	0.0222803	1
680	30.97276	0	0	0	0.0000917	230.0211	0.9776793	29.77639	0.0223207	1
681	31.01827	0	0	0	0.0000928	230.0199	0.9776753	29.78197	0.0223247	1
682	31.06377	0	0	0	0.0000938	230.0187	0.9776712	29.78756	0.0223288	1
683	31.10925	0	0	0	0.0000948	230.0175	0.9776672	29.79315	0.0223328	1
684	31.15471	0	0	0	0.0000959	230.0163	0.9776631	29.79874	0.0223369	1
685	31.20016	0	0	0	0.000097	230.0151	0.977659	29.80434	0.022341	1
686	31.03414	0.6575766	31.51511	0.0034491	0.0000954	231.7512	0.9763505	29.81035	0.0202004	1
687	30.85748	0.6600841	31.55421	0.0071088	0.0000937	233.5933	0.9749745	29.81639	0.0179166	1
688	30.67896	0.6625995	31.5935	0.0108387	0.000092	235.4709	0.9735849	29.82243	0.0155763	1
689	30.49857	0.6651229	31.63295	0.0146405	0.0000903	237.3849	0.9721814	29.82849	0.0131781	1
690	30.31631	0.6676543	31.67253	0.018516	0.0000886	239.3361	0.9707637	29.83456	0.0107203	1
691	30.13221	0.6701938	31.7123	0.022467	0.000087	241.3257	0.9693315	29.84063	0.0082015	1
692	29.94625	0.6727412	31.75224	0.0264954	0.0000854	243.3546	0.9678845	29.84671	0.00562	1
693	29.75844	0.6752968	31.79233	0.0306034	0.0000838	245.4238	0.9664224	29.85281	0.0029742	1
694	29.56879	0.6778603	31.83255	0.0347928	0.0000822	247.5346	0.964945	29.85891	0.0002622	1
695	29.5924	0.6784773	31.85696	0.0352001	0.0000828	247.6984	0.9647999	0	0	1
696	29.63859	0.6788876	31.87978	0.0352039	0.0000835	247.6547	0.9647961	0	0	1
697	29.68477	0.6792972	31.90256	0.0352076	0.0000843	247.6111	0.9647924	0	0	1
698	29.73094	0.6797061	31.92534	0.0352114	0.0000851	247.5677	0.9647886	0	0	1
699	29.7771	0.6801143	31.94811	0.0352152	0.0000859	247.5243	0.9647848	0	0	1
700	29.82326	0.6805221	31.97093	0.0352191	0.0000867	247.4811	0.9647809	0	0	1
710	30.28465	0.6845899	32.19963	0.0352587	0.0000953	247.053	0.9647413	0	0	1
720	30.74633	0.6886993	32.42949	0.0352967	0.0001048	246.6272	0.9647033	0	0	1
730	31.20908	0.6929293	32.66089	0.0353296	0.0001152	246.1968	0.9646704	0	0	1
740	31.67364	0.6973513	32.89398	0.0353539	0.0001268	245.7562	0.9646461	0	0	1
750	32.14062	0.7020278	33.12865	0.0353666	0.0001395	245.301	0.9646334	0	0	1
760	32.61056	0.7070117	33.36471	0.0353648	0.0001537	244.8279	0.9646352	0	0	1
770	33.08384	0.7123458	33.60194	0.0353466	0.0001693	244.3349	0.9646534	0	0	1
780	33.56074	0.7180621	33.83998	0.0353103	0.0001866	243.8209	0.9646897	0	0	1
790	34.04139	0.7241817	34.07845	0.035255	0.0002057	243.2861	0.964745	0	0	1
800	34.5258	0.7307146	34.31699	0.0351804	0.0002268	242.7316	0.9648196	0	0	1
810	34.97824	0.7340736	34.54194	0.0352449	0.000248	242.2222	0.9647551	0	0	1
820	35.42661	0.7370604	34.76533	0.0353247	0.0002709	242.1429	0.9646753	0	0	1
830	35.87339	0.7399266	34.98812	0.0354087	0.0002956	241.8747	0.9645913	0	0	1
840	36.31856	0.7426731	35.21026	0.0354966	0.0003222	241.6172	0.9645034	0	0	1

850	36.76209	0.7453013	35.43168	0.0355884	0.0003508	241.3698	0.9644116	0	0	1
860	37.20397	0.7478128	35.65231	0.0356838	0.0003816	241.1323	0.9643162	0	0	1
870	37.64418	0.7502098	35.87209	0.0357827	0.0004147	240.9042	0.9642173	0	0	1
880	38.0827	0.7524949	36.09092	0.0358848	0.0004501	240.6851	0.9641152	0	0	1
890	38.51953	0.7546708	36.30871	0.0359898	0.0004881	240.4746	0.9640102	0	0	1
900	38.95464	0.7567406	36.52534	0.0360976	0.0005287	240.2722	0.9639024	0	0	1
910	39.38805	0.7587077	36.74093	0.036208	0.0005721	240.0775	0.963792	0	0	1
920	39.81975	0.7605754	36.95588	0.0363213	0.0006184	239.8899	0.9636787	0	0	1
930	40.24974	0.7623473	37.17024	0.0364373	0.0006677	239.7091	0.9635627	0	0	1
940	40.67803	0.7640274	37.38403	0.0365559	0.0007202	239.5345	0.9634441	0	0	1
950	41.1046	0.7656195	37.59731	0.0366769	0.0007761	239.3658	0.9633231	0	0	1
960	41.52946	0.7671278	37.81012	0.0368001	0.0008354	239.2026	0.9631999	0	0	1
970	41.95261	0.7685562	38.02247	0.0369254	0.0008984	239.0443	0.9630746	0	0	1
980	42.37405	0.769909	38.23441	0.0370525	0.0009653	238.8907	0.9629475	0	0	1
990	42.79377	0.7711903	38.44595	0.0371812	0.0010361	238.7413	0.9628188	0	0	1
1000	43.21176	0.7724045	38.65712	0.0373114	0.0011111	238.5957	0.9626886	0	0	1