

Table 1: Re-fitted bulk $\alpha(0)$ and proton-neutron asymmetry a_a constants for Seeger's liquid drop energy for $1 \leq Z \leq 118$, to the experimental (combinations without and with star as super-script upto $Z=7$ and $Z \geq 8$ respectively) and theoretical binding energies (only for those combinations for which experimental data is not available having $Z \geq 8$, given here without any super-script).

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
1	2	-15.85	0.100	5	14	-12.92	0.400	10	(8,13)*	-15.89	0.500
	3	-16.93	0.120	6	2	-12.95	0.010		(9-12)*,(15-18)*	-16.16	0.910
	4	-13.37	0.100		3,11	-14.81	0.100		(19-22)*	-16.22	0.882
	5	-13.57	0.120		4,9	-15.65	0.100		(23,24)*	-16.29	0.876
	6	-11.49	0.100		5,7	-16.53	0.100		25,26	-16.25	0.856
2	1	-15.18	0.100		8	-15.92	0.100		27	-16.25	0.848
	2	-16.11	0.100		10	-15.09	0.100		28	-16.25	0.839
	3	-16.90	0.300		12,13	-15.04	0.800		29	-16.25	0.833
	4,5	-14.23	0.300		14	-14.83	0.800		30	-16.25	0.826
	6	-13.12	0.100		15,16	-14.99	0.800		31	-16.25	0.815
	7	-12.87	0.100	7	3	-14.27	0.200	11	(7,8)*	-15.91	0.920
	8	-11.37	0.200		4	-15.12	0.530		(9,21,23)*	-16.21	0.861
3	0	-09.73	0.100		5,9	-16.20	0.800		(10-13)*	-16.27	0.865
	1,4,5	-16.67	0.100		6	-16.53	0.800		14*	-16.06	0.800
	2	-17.00	0.100		7	-16.75	0.800		(15-20,22,24)*	-16.18	0.865
	3	-18.43	0.990		8	-16.35	0.800		(25,26)*	-16.21	0.852
	6	-13.70	0.980		10,11,15	-15.90	0.940		27,28	-16.21	0.833
	7	-14.37	0.400		12,13	-15.70	0.890		29	-16.27	0.832
	8	-13.16	0.100		14	-15.68	0.940		30	-16.27	0.825
	9	-12.99	0.100		16	-15.97	0.940		31	-16.27	0.815
4	1	-12.37	0.010		17,18	-16.10	0.930		32	-16.27	0.809
	2	-14.45	0.100	8	4*	-14.00	0.940		33	-16.27	0.801
	3	-16.12	0.800		5*	-15.30	0.940	12	7*	-15.70	0.967
	4	-17.05	0.980		(6,10,11,13)*	-15.93	0.940		8*	-15.86	0.958
	5	-16.70	0.600		(7,8)*	-16.24	0.500		(9,10)*	-16.07	0.920
	6	-15.50	0.800		(9,15,16)*	-16.17	0.950		(11-13)*	-16.23	0.842
	7	-15.23	0.500		(12,14)*	-15.85	0.940		(14-26)*	-16.18	0.842
	8	-14.24	0.100		(17,19,20)*	-16.09	0.895		(27,28)*	-16.18	0.835
	9	-14.04	0.100		18*	-16.01	0.895		29	-16.33	0.837
	10	-13.28	0.010		21,22	-16.19	0.898		30	-16.03	0.792
	11	-12.96	0.100		23,24	-16.38	0.895		31	-16.03	0.785
	12	-12.23	0.100		25,26	-16.19	0.867		32,34,35	-16.09	0.773
5	1	-13.10	0.100	9	5*	-15.19	0.800		33	-16.03	0.776
	2	-14.53	0.100		(6,12,13)*	-15.78	0.500	13	8*	-15.95	0.950
	3	-16.43	0.100		(7,8,10,11,15,16,18)*	-16.17	0.910		(9,10)*	-16.10	0.930
	4	-16.65	0.600		9*	-16.30	0.900		(11-19)*,(25-28)*	-16.26	0.842
	5	-17.16	0.100		14*	-15.95	0.900		(20-24)*	-16.22	0.845
	6	-16.57	0.600		(17,19,20)*	-16.17	0.895		29*	-16.41	0.850
	7	-16.30	0.100		(21,22)*	-16.17	0.880		30	-16.11	0.799
	8	-15.33	0.100		23-26	-16.25	0.866		31	-16.11	0.787
	9	-15.12	0.100		27	-16.25	0.855		32	-16.11	0.771
	10	-14.40	0.100		28	-16.25	0.846		33-36	-16.00	0.763
	11	-14.10	0.100		29	-16.25	0.839		37,38	-16.08	0.764
	12	-13.41	0.100	10	6*	-15.22	0.500	14	8*	-15.95	0.965
	13	-13.10	0.100		(7,14)*	-15.70	0.500		(9,10)*	-16.04	0.932

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
14	(11,12)*	-16.17	0.965	18	36-41	-16.21	0.745	23	(26-30)*	-16.39	0.792
	(13-20,27,28)*	-16.27	0.839		42,43,47-49	-16.21	0.741		(31-42)*	-16.40	0.768
	(21-26)*	-16.23	0.841		44-46	-16.21	0.739		43-50	-16.25	0.729
	(29,30)*	-16.31	0.836	19	10	-16.17	0.830		51-53	-16.19	0.718
	31	-16.09	0.776		11,12	-16.20	0.787		54-56	-16.21	0.717
	32-35	-16.05	0.762		(13-21)*	-16.49	0.899		57-60	-16.19	0.712
	36,37	-16.09	0.762		(22-28)*	-16.36	0.813	24	14	-16.30	0.765
	38	-16.09	0.758		(29-32)*	-16.37	0.779		15,16	-16.38	0.765
	39,40	-16.09	0.754		(33-36)*	-16.44	0.783		17	-16.44	0.765
15	8	-16.10	0.970		37-42,45-48	-16.21	0.740		(18-25,42,43)*	-16.45	0.770
	(9-14)*	-16.31	0.939		43,44,49,50	-16.21	0.738		(26-29)*	-16.40	0.795
	(15-24)*	-16.40	0.893		51	-16.21	0.734		(30-41)*	-16.42	0.774
	(25-28)*	-16.12	0.783	20	10	-16.17	0.834		44-46,59-62	-16.17	0.706
	(29-31)*	-16.11	0.762		11	-16.17	0.806		47-51	-16.21	0.720
	32-36	-16.11	0.762		12	-16.17	0.771		52,53	-16.17	0.710
	37,38	-16.09	0.754		13	-16.17	0.718		54-58	-16.17	0.708
	39-42	-16.09	0.749		(14-21)*	-16.49	0.899	25	15,16	-16.38	0.758
16	8	-16.11	0.955		(22-30)*	-16.37	0.789		17,18	-16.48	0.780
	9	-16.11	0.907		(31-34)*	-16.43	0.783		(19-26)*	-16.46	0.760
	(10-14)*	-16.31	0.925		(35-37)*	-16.49	0.789		(27-44)*	-16.42	0.768
	(15-24)*	-16.40	0.893		38-49	-16.22	0.735		45,46	-16.43	0.761
	(25-28)*	-16.31	0.828		50,51	-16.22	0.732		47-52	-16.21	0.715
	(29-30)*	-16.22	0.775		52,53	-16.17	0.723		53-59	-16.17	0.706
	(31-33)*	-16.25	0.773	21	11,12	-16.17	0.770		60-64	-16.17	0.704
	34-38	-16.11	0.751		13,14	-16.29	0.770	26	16-18	-16.44	0.765
	39	-16.20	0.758		(15-21)*	-16.47	0.795		(19-26)*	-16.47	0.770
	40-44	-16.20	0.755		(22,23,31,33,35-39)*	-16.43	0.779		(27-45)*	-16.43	0.768
17	8	-16.11	0.914		(24-30,32,34)*	-16.36	0.774		46*	-16.47	0.770
	9,10	-16.17	0.864		40-50	-16.23	0.733		47	-16.40	0.750
	(11-14,22-28)*	-16.32	0.822		51,52	-16.23	0.729		48-62	-16.17	0.702
	(15-21)*	-16.46	0.893		53-55	-16.17	0.718		63-66	-16.17	0.700
	(29-30)*	-16.27	0.775	22	12	-16.25	0.790	27	17	-16.50	0.782
	(31-34)*	-16.35	0.778		13,14	-16.25	0.765		18,19	-16.50	0.761
	35-40	-16.20	0.755		15	-16.25	0.700		(20-27)*	-16.48	0.755
	41,42	-16.20	0.747		(16-23)*	-16.44	0.775		(28-46)*	-16.44	0.767
	43,44	-16.20	0.745		(24-30)*	-16.39	0.803		(47,48)*	-16.47	0.767
	45,46	-16.20	0.743		(31-41)*	-16.39	0.768		49,50	-16.42	0.750
18	9	-16.17	0.864		42-46,49-51	-16.24	0.729		51-62	-16.18	0.701
	10,11	-16.17	0.811		47,48	-16.24	0.731		63-69	-16.18	0.700
	(12-14)*	-16.40	0.893		52,53	-16.17	0.717	28	18	-16.50	0.774
	(15-19)*	-16.46	0.893		54-56	-16.17	0.715		19	-16.50	0.760
	(20-25)*	-16.43	0.899		57,58	-16.17	0.712		(20-29,46-48)*	-16.48	0.769
	(26-28)*	-16.25	0.775	23	13,14	-16.17	0.721		(30-45)*	-16.45	0.770
	(29-31)*	-16.35	0.785		15,16	-16.44	0.790		(49,50)*	-16.22	0.702
	(32-35)*	-16.35	0.772		(17-25)*	-16.45	0.768		51-55	-16.22	0.702

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
28	56-60	-16.21	0.702	35	63-74	-16.42	0.707	40	(43-46)*	-16.64	0.805
	61-71	-16.21	0.700		75,76	-16.37	0.703		(47-66)*	-16.59	0.730
29	19-22	-16.54	0.750		77-80	-16.40	0.704		71,72,78-81	-16.51	0.708
	(23-30)*	-16.51	0.720		81,82	-16.40	0.702		73-77	-16.53	0.714
	(31-44)*	-16.51	0.790		83-86	-16.40	0.700		82,83	-16.53	0.709
	(45-51)*	-16.44	0.751	36	27-32	-16.64	0.702		84-87	-16.53	0.707
	52-55	-16.24	0.700		(33-38)*	-16.63	0.652		88-97	-16.24	0.674
	56-73	-16.23	0.700		(39-48)*	-16.59	0.799	41	33-39	-16.73	0.708
30	21-23	-16.55	0.740		(49-64)*	-16.49	0.719		(40-42,70-72)*	-16.70	0.747
	(24-33)*	-16.52	0.700		65-73	-16.44	0.706		(43,44,66-69)*	-16.67	0.746
	(34-40)*	-16.52	0.794		74-76	-16.44	0.709		(45-51)*	-16.64	0.794
	(41-53)*	-16.40	0.730		77-79	-16.49	0.713		(52-65)*	-16.59	0.728
	54-57	-16.28	0.700		80-84	-16.15	0.672		73-80	-16.51	0.708
	58-75	-16.26	0.700		85-88	-16.15	0.674		81-84	-16.51	0.705
31	22-24	-16.56	0.720	37	29-33	-16.66	0.702		85-87	-16.51	0.704
	(25-33)*	-16.57	0.749		(34-39)*	-16.65	0.740		88-99	-16.26	0.674
	(34-45)*	-16.53	0.789		(40-48)*	-16.60	0.799	42	35-39	-16.74	0.711
	(46-53)*	-16.41	0.727		(49-65)*	-16.51	0.720		40	-16.71	0.711
	(54,55)*	-16.44	0.727		66-72	-16.45	0.705		(41,42,72,73)*	-16.72	0.748
	56-63	-16.30	0.700		73-78	-16.45	0.708		(43,44,68-71)*	-16.69	0.748
	64-77	-16.28	0.700		79-84	-16.17	0.672		(45-54)*	-16.66	0.788
32	23-25	-16.58	0.720		85,86	-16.16	0.672		(55-67)*	-16.60	0.728
	(26-33)*	-16.58	0.749		87-91	-16.17	0.674		74-80	-16.53	0.709
	(34-45)*	-16.55	0.795	38	30-34	-16.68	0.702		81-89	-16.53	0.705
	(46-57)*	-16.41	0.719		(35-39)*	-16.67	0.735		90-102	-16.28	0.674
	58	-16.34	0.701		(40-42,64-67)*	-16.63	0.742	43	36-38	-16.75	0.704
	59-80	-16.32	0.701		(43-54)*	-16.58	0.748		39-41	-16.73	0.709
33	24-26	-16.60	0.720		(55-63)*	-16.57	0.734		(42,43,70-72)*	-16.73	0.755
	(27-34)*	-16.60	0.750		68-71	-16.47	0.705		(44,45)*	-16.70	0.748
	(35-46)*	-16.56	0.798		72-79	-16.47	0.708		(46-54)*	-16.66	0.787
	(47-59)*	-16.44	0.721		80-85	-16.21	0.673		(55-69)*	-16.61	0.728
	60-76	-16.38	0.707		86-87	-16.21	0.674		(73-75)*	-16.72	0.748
	77-80	-16.34	0.702		88-93	-16.19	0.674		76-80	-16.55	0.711
	81,82	-16.34	0.700	39	31-36	-16.70	0.702		81-88	-16.55	0.707
34	25-30	-16.60	0.701		(37-40)*	-16.68	0.747		89-103	-16.30	0.674
	(31-36)*	-16.60	0.700		(41-43)*	-16.64	0.805		104	-16.30	0.675
	(37-46)*	-16.57	0.797		(44,45,63-69)*	-16.59	0.730	44	37,38	-16.77	0.704
	(47-60)*	-16.46	0.721		(46-62)*	-16.57	0.730		39-42	-16.73	0.709
	61-73	-16.37	0.701		70,71,81	-16.50	0.708		(43,44,75,76)*	-16.73	0.748
	74-77	-16.37	0.703		72-80	-16.51	0.712		(45,46,72-74)*	-16.71	0.747
	78-84	-16.11	0.675		82-86	-16.22	0.672		(47-56)*	-16.68	0.788
35	26-31	-16.62	0.700		87-95	-16.22	0.674		(57-71)*	-16.62	0.728
	(32-37)*	-16.62	0.760	40	32-37	-16.72	0.702		77-79	-16.57	0.712
	(38-46)*	-16.58	0.799		(38-40)*	-16.70	0.760		80,81	-16.57	0.710
	(47-62)*	-16.48	0.722		(41,42,67-70)*	-16.68	0.747		82-90	-16.57	0.707

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
44	91-103	-16.32	0.674	48	106-115	-16.39	0.677	53	53,54	-16.83	0.685
	104-106	-16.33	0.676	49	43-46	-16.82	0.678		(55-60)*	-16.82	0.885
45	38-40	-16.76	0.674		47	-16.80	0.695		(61-68)*	-16.80	0.798
	41-43	-16.74	0.674		(48-51,78)*	-16.78	0.752		(69-81)*	-16.72	0.725
	(44,45)*	-16.74	0.700		(52-64)*	-16.75	0.789		(82-91)*	-16.70	0.713
	(46,47,75-77)*	-16.72	0.746		(65-77)*	-16.67	0.727		92-98	-16.64	0.700
	(48-57)*	-16.69	0.787		(79-86)*	-16.67	0.718		99-109	-16.66	0.701
	(58-74)*	-16.63	0.727		87-97	-16.61	0.704		110-118,123-126	-16.49	0.680
	78-80	-16.57	0.710		98-102	-16.39	0.673		119-122	-16.48	0.680
	81-91	-16.57	0.706		103-105	-16.41	0.677	54	49-52	-16.87	0.600
	92-93	-16.59	0.707		106-117	-16.42	0.679		53,54	-16.85	0.600
	94-103	-16.35	0.676	50	44-46	-16.84	0.639		55	-16.84	0.600
	104-108	-16.35	0.677		47,48	-16.82	0.600		(56-60)*	-16.84	0.889
46	40-42	-16.77	0.684		(49-52)*	-16.80	0.990		(61-68)*	-16.81	0.799
	43-44	-16.76	0.689		(53-64)*	-16.76	0.798		(69-83)*	-16.74	0.726
	(45,46)*	-16.76	0.710		(65-77)*	-16.68	0.725		(84-93)*	-16.71	0.712
	(47-48,76-78)*	-16.73	0.746		(78-81)*	-16.68	0.719		94-97	-16.66	0.700
	(49-61)*	-16.71	0.780		(82-87)*	-16.68	0.715		98-113	-16.67	0.700
	(62-75)*	-16.64	0.727		88-97	-16.63	0.706		114,125-128	-16.51	0.680
	79	-16.59	0.711		98-102	-16.43	0.676		115-124	-16.50	0.680
	80-91	-16.59	0.707		103-106	-16.44	0.679	55	51-53	-16.88	0.600
	92-94	-16.59	0.705		107-119	-16.43	0.679		54,55	-16.87	0.600
	95-105	-16.40	0.680	51	46-49	-16.84	0.639		56	-16.86	0.600
	106-110	-16.35	0.676		50,51	-16.82	0.630		(57-63)*	-16.85	0.889
47	41,42	-16.79	0.684		(52-59)*	-16.80	0.885		(64-71)*	-16.83	0.797
	43-45	-16.77	0.690		(60-65)*	-16.77	0.797		(72-76,92-96)*	-16.73	0.713
	(46,81-83)*	-16.78	0.746		(66-78)*	-16.69	0.724		(77-91)*	-16.71	0.712
	(47-49,78-80)*	-16.75	0.745		(79-88)*	-16.69	0.717		97-115	-16.68	0.700
	(50-62)*	-16.72	0.780		89-95	-16.64	0.706		116-124	-16.53	0.682
	(63-77)*	-16.65	0.726		96-100	-16.64	0.704		125-130	-16.53	0.681
	84-93	-16.59	0.705		101-106	-16.64	0.702	56	52-54	-16.90	0.600
	94-95	-16.57	0.701		107-111	-16.45	0.679		55,56	-16.88	0.600
	96-101	-16.39	0.677		112-121	-16.43	0.678		57	-16.87	0.600
	102-105	-16.34	0.672	52	47-50	-16.86	0.680		(58-62)*	-16.87	0.890
	106-113	-16.39	0.679		51,52	-16.84	0.630		(63-71)*	-16.84	0.797
48	42-44	-16.80	0.678		(53-59)*	-16.81	0.885		(72-76,93-97)*	-16.75	0.713
	45,46	-16.78	0.695		(60-66)*	-16.78	0.796		(77-92)*	-16.73	0.712
	(47-49,80-82)*	-16.77	0.745		(67-79)*	-16.70	0.723		98-120	-16.70	0.700
	(50-63)*	-16.74	0.786		(80-90)*	-16.69	0.713		121-131	-16.54	0.681
	(64-79)*	-16.66	0.725		91-98	-16.64	0.702		132,133	-16.54	0.680
	(83,84)*	-16.67	0.720		99-109	-16.64	0.700	57	53-56	-16.91	0.600
	85-88,93-96	-16.61	0.705		110,111,123,124	-16.48	0.680		57,58	-16.89	0.600
	89-92	-16.58	0.702		112-122	-16.47	0.680		59	-16.88	0.600
	97-100	-16.39	0.674	53	48-50	-16.86	0.600		(60-62)*	-16.87	0.735
	101-105	-16.41	0.678		51,52	-16.85	0.685		(63-74)*	-16.85	0.789

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
57	(75-81)*	-16.77	0.727	62	61,62	-17.00	0.600	66	(72-77)*	-17.00	0.930
	(82-98)*	-16.70	0.698		63-64	-16.98	0.826		(78-85)*	-16.92	0.768
	99-117	-16.71	0.701		65	-16.96	0.826		(86-91)*	-16.84	0.700
	118-132	-16.54	0.680		(66-76)*	-16.95	0.859		(92-107)*	-16.86	0.709
	133-135	-16.55	0.680		(77-85)*	-16.86	0.747		108-124	-16.87	0.713
58	55,56	-16.93	0.600		(86-103)*	-16.78	0.700		125-129	-16.80	0.701
	57	-16.92	0.600		104-106	-16.80	0.705		130-150	-16.53	0.664
	58-60	-16.91	0.600		107-122	-16.80	0.707		151-155	-16.52	0.664
	(61,62,97-99)*	-16.89	0.736		123-134	-16.64	0.684	67	69,70	-17.01	0.826
	(63-66,90-92)*	-16.87	0.746		135-146	-16.44	0.661		71,72	-17.01	0.826
	(67-76)*	-16.86	0.788	63	62	-17.01	0.826		(73-78)*	-17.00	0.930
	(77-89)*	-16.77	0.720		63,64	-17.00	0.826		(79-87)*	-16.93	0.768
	(93-96)*	-16.80	0.720		65,66	-16.98	0.826		(88-93)*	-16.85	0.700
	100-119	-16.74	0.703		(67-74)*	-16.96	0.889		(94-108)*	-16.88	0.712
	120-128	-16.57	0.682		(75-84)*	-16.90	0.777		109-123	-16.90	0.718
	129-137	-16.37	0.661		(85-104)*	-16.79	0.699		124-129	-16.81	0.701
59	56-58	-16.95	0.600		105-109	-16.81	0.706		130-135	-16.58	0.669
	59-61	-16.93	0.600		110-120	-16.81	0.708		136-153	-16.56	0.666
	(62-69)*	-16.91	0.850		121-131	-16.65	0.685		154-157	-16.56	0.667
	(70-80)*	-16.86	0.772		132-148	-16.45	0.661	68	70	-17.05	0.826
	(81-92)*	-16.76	0.710	64	64	-17.01	0.826		71,72	-17.03	0.826
	(93-100)*	-16.75	0.702		65,66	-17.00	0.826		73,74	-17.01	0.826
	101-118	-16.78	0.708		67,68	-16.98	0.826		(75-80)*	-17.00	0.870
	119-130	-16.59	0.683		69	-16.97	0.826		(81-84)*	-16.91	0.724
	131-139	-16.40	0.663		(70-75)*	-16.97	0.889		(85-109)*	-16.89	0.712
60	58-60	-16.97	0.600		(76-85)*	-16.91	0.773		110-123	-16.91	0.718
	61,62	-16.95	0.600		(86-105)*	-16.81	0.701		124-130	-16.83	0.703
	63	-16.92	0.600		106-112	-16.82	0.706		131-156	-16.59	0.668
	(64-76)*	-16.92	0.834		113-120	-16.82	0.708		157-159	-16.58	0.668
	(77-86)*	-16.82	0.735		121-134	-16.67	0.685	69	72,73	-17.04	0.881
	(87-91)*	-16.75	0.702		135-150	-16.48	0.662		74,75	-17.00	0.708
	(92-101)*	-16.75	0.699	65	65,66	-17.02	0.826		(76-85)*	-16.99	0.820
	102-119	-16.79	0.708		67,68	-17.00	0.826		(86-95)*	-16.91	0.720
	120-130	-16.61	0.684		69,70	-16.99	0.826		(96-110)*	-16.90	0.712
	131-141	-16.42	0.663		(71-76)*	-16.99	0.930		111-124	-16.92	0.719
61	59,60	-16.99	0.600		(77-85)*	-16.91	0.767		125-131	-16.85	0.705
	61,62	-16.97	0.600		(86-103)*	-16.82	0.699		132-157	-16.60	0.668
	63,64	-16.95	0.600		(104-106)*	-16.82	0.702		158-161	-16.59	0.668
	(65-77)*	-16.93	0.840		107-115	-16.85	0.711	70	73,74	-17.04	0.778
	(78-85)*	-16.84	0.745		116-121	-16.83	0.709		75	-17.01	0.642
	(86-102)*	-16.75	0.695		122-134	-16.68	0.686		76,77	-17.00	0.786
	103-105	-16.79	0.705		135-153	-16.52	0.665		(78-87)*	-17.00	0.813
	106-118	-16.79	0.707	66	67,68	-17.02	0.826		(88-108)*	-16.91	0.711
	119-128	-16.62	0.684		69,70	-17.01	0.826		(109-111)*	-16.90	0.711
	129-144	-16.43	0.662		71	-16.99	0.826		112-123	-16.93	0.720

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
70	124-131	-16.86	0.705	76	(96-100)*	-17.02	0.743	81	160-165	-16.85	0.686
	132-164	-16.65	0.672		(101-120)*	-16.98	0.720		176-185	-16.95	0.694
71	75	-17.03	0.603		121-136	-16.92	0.706		186-188	-16.96	0.694
	76-78	-17.03	0.910		137-142	-16.72	0.671	82	93-95	-17.14	0.845
	(79-88)*	-17.00	0.797		143-152	-16.72	0.672		(96-106)*	-17.11	0.786
	(89-113)*	-16.93	0.717		153-163	-16.73	0.674		(107-133)*	-17.02	0.716
	114-124	-16.95	0.723		164-166	-17.02	0.705		134-143	-17.00	0.712
	125-130	-16.87	0.706		167-170	-17.03	0.705		144-159	-16.86	0.685
	131-163	-16.66	0.672		171-177	-16.80	0.683		160-165	-16.87	0.687
	164-166	-16.65	0.672	77	85,86	-17.09	0.845		166-188	-16.86	0.685
72	77-80	-17.03	0.845		(87-94)*	-17.06	0.780		189-191	-16.86	0.684
	(81-93)*	-17.00	0.770		(95-105)*	-17.02	0.740	83	95,96	-17.14	0.845
	(94-116)*	-16.94	0.718		(106-122)*	-16.98	0.718		97-100	-17.15	0.845
	117,118	-16.95	0.721		123-138	-16.93	0.706		(101-113)*	-17.08	0.747
	119-131	-16.88	0.706		139-143	-16.73	0.671		(114-135)*	-17.03	0.717
	132-134,148-152	-16.68	0.672		144-150	-16.73	0.672		136-140	-17.01	0.713
	135-147,153-164	-16.67	0.672		151-167	-16.81	0.683		141-154	-16.88	0.686
	165-168	-16.78	0.683		168-179	-16.77	0.680		155-193	-16.86	0.684
73	78,79	-17.05	0.845	78	87	-17.10	0.845	84	97-98	-17.16	0.845
	80,81	-17.04	0.845		(88-97)*	-17.08	0.798		99-101	-17.17	0.845
	(82-93)*	-17.01	0.772		(98-105)*	-17.05	0.755		102,103	-17.18	0.845
	(94-117)*	-16.95	0.719		(106-124)*	-16.99	0.718		(104-115)*	-17.10	0.751
	118	-16.89	0.704		125-140	-16.94	0.706		(116-136)*	-17.04	0.717
	119-133	-16.89	0.706		141-150	-16.74	0.671		137-140	-16.90	0.685
	134-136	-16.90	0.706		151-166	-16.82	0.683		141-152	-16.90	0.686
	137-160	-16.68	0.672		167-182	-16.76	0.678		153-156	-16.90	0.687
	161-167	-16.79	0.683	79	88,89	-17.11	0.845		157-171	-16.90	0.688
	168-170	-16.79	0.684		(90-98)*	-17.09	0.801		172-193	-16.89	0.686
74	80-83	-17.06	0.845		(99-106)*	-17.06	0.759		194,195	-16.89	0.685
	(84-96)*	-17.02	0.762		(107-126)*	-16.99	0.715	85	99,100	-17.18	0.845
	(97-118)*	-16.97	0.723		127-136	-16.97	0.711		101-103	-17.19	0.845
	119-134	-16.90	0.706		137-164,171-184	-16.83	0.684		104,105	-17.20	0.845
	135-152	-16.70	0.672		165-170	-16.84	0.686		106,107	-17.21	0.845
	153-162	-16.70	0.673	80	90	-17.12	0.845		(108-116)*	-17.11	0.751
	163-173	-16.90	0.693		(91-103)*	-17.09	0.783		(117-138)*	-17.05	0.718
75	81-84	-17.07	0.845		(104-111)*	-17.05	0.743		139-149	-16.91	0.685
	(85-97)*	-17.03	0.766		(112-130)*	-16.99	0.713		150-154,194-197	-16.91	0.686
	(98-102)*	-16.97	0.716		131-139	-16.98	0.711		155-188	-16.91	0.688
	(103-119)*	-16.97	0.721		140-163,168-186	-16.84	0.684		189-193	-16.92	0.688
	120-136	-16.91	0.706		164-167	-16.85	0.686	86	100-102	-17.20	0.845
	137-151	-16.71	0.672	81	92-94	-17.13	0.845		103-105	-17.21	0.845
	152-161	-16.71	0.673		(95-106)*	-17.08	0.765		106-108	-17.22	0.845
	162-175	-16.88	0.691		(107-131)*	-17.01	0.716		(109-120)*	-17.13	0.753
76	83-85	-17.08	0.845		132-140	-16.99	0.712		(121-125,132)*	-17.02	0.700
	(86-95)*	-17.06	0.795		141-159,166-175	-16.85	0.685		(126-131,133-142)*	-17.02	0.706

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
86	143-152	-16.92	0.684	89	182-189	-16.90	0.684	92	190,191	-16.99	0.690
	153-162	-16.93	0.688		190-192	-16.90	0.683		192-194	-16.99	0.689
	163-189	-16.92	0.688		193-197	-16.90	0.682		195-197	-16.99	0.688
	190-193	-16.92	0.687		198-202	-16.90	0.681		198-201	-16.99	0.687
	194-197	-16.92	0.686		203-206	-16.90	0.680		202-205	-16.99	0.686
	198-200	-16.92	0.685	90	108-113	-17.25	0.830		206-209,212	-16.99	0.685
87	102-106	-17.20	0.845		114,115	-17.26	0.830		210,211,213	-16.99	0.684
	107-109	-17.23	0.845		116,117	-17.27	0.830	93	113-118	-17.25	0.800
	110	-17.24	0.845		118	-17.29	0.834		119-123	-17.26	0.800
	111	-17.25	0.845		(119-126)*	-17.16	0.751		124-126	-17.27	0.800
	(112-117)*	-17.14	0.759		(127-148)*	-17.05	0.700		127	-17.28	0.800
	(118-129)*	-17.09	0.728		149-154,172-176	-17.06	0.702		128,129	-17.29	0.800
	(130-145)*	-17.01	0.700		155-171	-17.06	0.703		130,131	-17.31	0.800
	146-153	-16.95	0.688		177-181	-17.07	0.703		(132-140,146-151)*	-17.09	0.700
	154-163	-16.95	0.690		182-189	-16.92	0.685		(141-145)*	-17.10	0.701
	164-189	-16.95	0.691		190-192	-16.92	0.684		152-155	-17.09	0.701
	190-192	-16.90	0.685		193-196	-16.92	0.683		156-186	-17.10	0.705
	193-195	-16.90	0.684		197-202	-16.92	0.682		187-189	-17.00	0.691
	196-199,201	-16.90	0.683		203-205	-16.92	0.681		190-192	-17.00	0.690
	200,202	-16.90	0.682		206-209	-16.92	0.680		193-195	-17.00	0.689
88	104-107	-17.23	0.845	91	109-115	-17.26	0.830		196-199	-17.00	0.688
	108,109	-17.24	0.845		116,117	-17.27	0.830		200-203	-17.00	0.687
	110,111	-17.25	0.845		118,119	-17.29	0.834		204-206	-17.00	0.686
	112,113	-17.26	0.845		120	-17.30	0.832		207-212	-17.00	0.685
	(114-120)*	-17.15	0.755		(121-129)*	-17.17	0.751		213-215	-17.00	0.684
	(121-130)*	-17.10	0.728		(130-149)*	-17.06	0.699	94	115-119	-17.26	0.801
	(131-146)*	-17.02	0.699		150-155,177-187	-17.07	0.702		120-123	-17.27	0.801
	147-153	-16.96	0.687		156-166,169-175	-17.07	0.703		124-127	-17.28	0.800
	154-160	-16.96	0.689		167,168	-17.07	0.704		128,129	-17.30	0.803
	161-164	-16.96	0.690		188-190	-16.93	0.685		130,131	-17.31	0.800
	165-189	-16.96	0.691		191-193	-16.93	0.684		132,133	-17.33	0.800
	190,191	-16.92	0.686		194-196	-16.93	0.683		(134-153)*	-17.11	0.701
	192-195	-16.92	0.685		197-203	-16.93	0.682		154-158	-17.10	0.701
	196-199	-16.92	0.684		204-209	-16.93	0.681		159-187	-17.11	0.705
	200-202	-16.92	0.683		210,211	-16.93	0.680		188,189	-17.00	0.690
	203,204	-16.92	0.682	92	111-117	-17.27	0.827		190-192	-17.00	0.689
89	106-111	-17.24	0.834		118-121	-17.28	0.820		193-195	-17.00	0.688
	112,113	-17.26	0.845		122,123	-17.31	0.830		196-199	-17.00	0.687
	114	-17.27	0.845		124	-17.31	0.820		200-203	-17.00	0.686
	115	-17.28	0.845		(125-128,134-137)*	-17.09	0.704		204-207	-17.00	0.685
	116	-17.29	0.845		(129-133)*	-17.09	0.707		208-215	-17.00	0.684
	(117-127)*	-17.15	0.749		(138-150)*	-17.08	0.700		216-218	-17.00	0.683
	(128-147)*	-17.04	0.701		151-154	-17.08	0.701	95	117-123	-17.27	0.800
	148-169	-17.05	0.703		155-185	-17.08	0.703		124-127	-17.28	0.800
	170-181	-16.96	0.690		186-189	-16.99	0.691		128,129	-17.29	0.800

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
95	130,131	-17.31	0.800	97	193,194	-17.03	0.689	99	217-226,228,229	-17.05	0.684
	132,133	-17.33	0.800		195-197	-17.03	0.688	100	126-129	-17.32	0.802
	134,135	-17.35	0.800		198-201	-17.03	0.687		130,131	-17.34	0.802
	(136-150)*	-17.12	0.700		202-205	-17.03	0.686		132,133	-17.35	0.802
	(151-154)*	-17.13	0.704		206-210	-17.03	0.685		134,135	-17.37	0.802
	155-185	-17.14	0.709		211-220	-17.03	0.684		136,137	-17.39	0.804
	186-188	-17.01	0.691		221-224	-17.04	0.684		138,139	-17.41	0.805
	189,190	-17.01	0.690	98	123-127	-17.30	0.800		140,141	-17.43	0.807
	191-193	-17.01	0.689		128,129	-17.31	0.800		(142-154)*	-17.21	0.710
	194-197	-17.01	0.688		130,131	-17.33	0.803		(155-160)*	-17.22	0.714
	198-200	-17.01	0.687		132,133	-17.35	0.805		161-166	-17.18	0.706
	201-204	-17.01	0.686		134,135	-17.37	0.806		167-170	-17.18	0.709
	205-208	-17.01	0.685		136,137	-17.39	0.807		171-186	-17.18	0.710
	209-217	-17.01	0.684		138	-17.38	0.800		187-189	-17.05	0.690
	218-220	-17.01	0.683		(139-153)*	-17.18	0.707		190-192	-17.05	0.689
96	119-124	-17.28	0.800		(154-158)*	-17.18	0.709		193-195	-17.05	0.688
	125-129	-17.29	0.800		159-165	-17.17	0.709		196-198	-17.05	0.687
	130,131	-17.32	0.801		166-187	-17.17	0.710		199-201	-17.05	0.686
	132,133	-17.34	0.803		188-190	-17.05	0.692		202-207	-17.05	0.685
	134,135	-17.36	0.803		191-193	-17.05	0.691		208-218,227	-17.05	0.684
	136	-17.37	0.800		194,195	-17.05	0.690		219-226,228-231	-17.07	0.685
	(137,154-156)*	-17.15	0.707		196-198	-17.05	0.689	101	128,129	-17.33	0.800
	(138-153)*	-17.15	0.705		199-201	-17.05	0.688		130,131	-17.34	0.800
	157-186	-17.15	0.709		202-205	-17.04	0.686		132,133	-17.36	0.803
	187-189	-17.02	0.691		206-211	-17.04	0.685		134,135	-17.37	0.801
	190,191	-17.02	0.690		212-227	-17.04	0.684		136,137	-17.39	0.803
	192-194	-17.02	0.689	99	125-129	-17.31	0.800		138,139	-17.40	0.801
	195-197	-17.02	0.688		130,131	-17.33	0.800		140,141	-17.42	0.802
	198-200	-17.02	0.687		132	-17.34	0.800		142,143	-17.44	0.803
	201-204	-17.02	0.686		133,134	-17.35	0.800		(144-155)*	-17.22	0.710
	205-208	-17.02	0.685		135,136	-17.37	0.801		(156-161)*	-17.22	0.712
	209-217	-17.02	0.684		137,138	-17.39	0.802		162-166	-17.21	0.711
	218-222	-17.02	0.683		139,140	-17.42	0.807		167-186	-17.21	0.714
97	121-127	-17.29	0.800		(141-154)*	-17.19	0.707		187-189	-17.07	0.692
	128,129	-17.30	0.800		(155-159)*	-17.19	0.709		190,191	-17.07	0.691
	130,131	-17.32	0.801		160-166	-17.18	0.709		192,193	-17.07	0.690
	132,133	-17.34	0.802		167-180	-17.18	0.711		194-196	-17.07	0.689
	134,135	-17.36	0.803		181-187	-17.05	0.692		197-199	-17.07	0.688
	136,137	-17.38	0.803		188-191	-17.05	0.691		200-203	-17.07	0.687
	(138,155-157)*	-17.16	0.707		192,193	-17.05	0.690		204-211	-17.07	0.686
	(139-154)*	-17.17	0.708		194,195	-17.05	0.689		212-220,227-233	-17.07	0.685
	158-166	-17.16	0.709		196-199	-17.05	0.688		221-226	-17.07	0.684
	167-186	-17.15	0.709		200-202	-17.05	0.687	102	130,131	-17.35	0.802
	187-189	-17.03	0.691		203-207	-17.05	0.686		132,133	-17.36	0.800
	190-192	-17.03	0.690		208-216,227	-17.05	0.685		134,135	-17.38	0.802

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
102	136,137	-17.39	0.800	104	165-167	-17.26	0.716	107	144,145	-17.46	0.800
	138,139	-17.40	0.800		168-187	-17.26	0.719		146,147	-17.47	0.800
	140,141	-17.42	0.800		188-191	-17.09	0.690		148,149	-17.49	0.802
	142,143	-17.44	0.802		192,193	-17.09	0.689		150,151	-17.50	0.800
	144,145	-17.45	0.800		194-196	-17.09	0.688		152	-17.51	0.800
	(146-162)*	-17.27	0.723		197-199	-17.09	0.687		(153-168)*	-17.33	0.729
	163-167	-17.22	0.711		200-205	-17.09	0.686		169	-17.30	0.721
	168-182	-17.22	0.714		206-216,227	-17.09	0.685		170-182	-17.30	0.723
	183-188	-17.07	0.691		217-226	-17.09	0.684		183-192	-17.12	0.690
	189,190	-17.07	0.690		228-235	-17.09	0.684		193-195	-17.12	0.689
	191-193	-17.07	0.689	105	136,137	-17.40	0.800		196-198	-17.12	0.688
	194,195	-17.07	0.688		138,139	-17.41	0.800		199-203	-17.12	0.687
	196-199	-17.07	0.687		140,141	-17.43	0.802		204-211,226	-17.12	0.686
	200-203	-17.07	0.686		142,143	-17.44	0.800		212-225,227-232	-17.12	0.685
	204-212	-17.07	0.685		144,145	-17.45	0.800	108	142,143	-17.45	0.802
	213-236	-17.07	0.684		146,147	-17.47	0.801		144,145	-17.46	0.800
103	132,133	-17.37	0.803		148,149	-17.49	0.803		146,147	-17.48	0.802
	134,135	-17.38	0.803		(150-165)*	-17.30	0.725		148,149	-17.49	0.802
	136,137	-17.39	0.800		166,167	-17.27	0.717		150,151	-17.50	0.800
	138,139	-17.41	0.803		168-186	-17.27	0.720		152,153	-17.52	0.802
	140,141	-17.42	0.800		187-191	-17.10	0.690		154	-17.53	0.802
	142,143	-17.44	0.803		192-194	-17.10	0.689		(155-169)*	-17.33	0.727
	144,145	-17.45	0.800		195-197	-17.10	0.688		170-183	-17.32	0.725
	146,147	-17.47	0.802		198-201	-17.10	0.687		184-193	-17.13	0.690
	(148-163)*	-17.27	0.721		202-208	-17.10	0.686		194-195	-17.13	0.689
	164-166	-17.25	0.716		209-218,227-234	-17.10	0.685		196-199	-17.13	0.688
	167-170	-17.24	0.716		219-226	-17.10	0.684		200-203	-17.13	0.687
	171-188	-17.24	0.717	106	138,139	-17.42	0.800		204-218,220-223,225-226	-17.13	0.686
	189-190	-17.08	0.690		140,141	-17.43	0.800		219-224,227-231	-17.13	0.685
	191-193	-17.08	0.689		142,143	-17.44	0.800	109	144,145	-17.47	0.803
	194-196	-17.08	0.688		144,145	-17.46	0.802		146,147	-17.48	0.803
	197-199	-17.08	0.687		146,147	-17.47	0.800		148,149	-17.49	0.802
	200-205	-17.08	0.686		148,149	-17.49	0.802		150,151	-17.51	0.803
	206-215,227	-17.08	0.685		150,151	-17.50	0.800		152,153	-17.52	0.803
	216-226	-17.08	0.684		(152-165)*	-17.33	0.731		154	-17.53	0.803
	228-236	-17.08	0.684		(166-167)*	-17.33	0.731		155	-17.34	0.724
104	134,135	-17.39	0.804		168-186	-17.29	0.722		(156-162)*	-17.34	0.727
	136,137	-17.40	0.804		187-191	-17.11	0.690		(163-170)*	-17.33	0.726
	138,139	-17.41	0.801		192-194	-17.11	0.689		171-183	-17.33	0.726
	140,141	-17.43	0.804		195-197	-17.11	0.688		184-194	-17.14	0.690
	142,143	-17.44	0.801		198-201	-17.11	0.687		195-197	-17.14	0.689
	144,145	-17.46	0.804		202-209	-17.11	0.686		198-200	-17.14	0.688
	146,147	-17.47	0.801		210-233	-17.11	0.685		201-209	-17.14	0.687
	148	-17.48	0.801	107	140,141	-17.43	0.800		210-218,222-227	-17.14	0.686
	(149-164)*	-17.30	0.727		142,143	-17.45	0.802		219-221	-17.15	0.688

Z	N	$\alpha(0)$	a_a	Z	N	$\alpha(0)$	a_a
109	228-230	-17.14	0.685	113	198-201	-17.18	0.689
110	146,147	-17.48	0.800		202-221	-17.18	0.688
	148,149	-17.49	0.800		222-226	-17.18	0.687
	150,151	-17.50	0.800	114	155-170	-17.39	0.730
	152,153	-17.52	0.802		(171-175)*	-17.35	0.722
	154-156	-17.35	0.725		176-182,188-190	-17.38	0.729
	(157-164)*	-17.35	0.728		183-187	-17.38	0.730
	(165-172)*	-17.34	0.727		191-197	-17.19	0.690
	173-187	-17.34	0.727		198-201	-17.19	0.689
	188-194	-17.15	0.690		202-221	-17.19	0.688
	195-197	-17.15	0.689		222-225	-17.19	0.687
	198-201	-17.15	0.688	115	157-171	-17.40	0.731
	202-211,218-223	-17.15	0.687		(172-176)*	-17.35	0.720
	212-217,224-227	-17.15	0.686		177-181	-17.39	0.730
	228,229	-17.15	0.685		182-189	-17.39	0.731
111	148,149	-17.49	0.800		190-197	-17.20	0.690
	150,151	-17.51	0.804		198-215	-17.20	0.689
	152	-17.51	0.800		216-224	-17.20	0.688
	153-160	-17.36	0.726	116	159-167	-17.41	0.731
	(161-164)*	-17.37	0.733		168-172	-17.41	0.733
	(165-172)*	-17.35	0.728		(173-176)*	-17.42	0.740
	173-183	-17.35	0.727		177-179	-17.41	0.733
	184-188	-17.16	0.689		180-189	-17.40	0.732
	189-197	-17.16	0.690		190-197	-17.21	0.690
	198-207	-17.16	0.688		198-219	-17.21	0.689
	208-225	-17.16	0.687		220-223	-17.21	0.688
	226-228	-17.16	0.686	117	161-171	-17.42	0.733
112	150,151	-17.51	0.802		172,173,176	-17.42	0.735
	152-164	-17.37	0.726		(174,175)*	-17.42	0.739
	(165-173)*	-17.35	0.726		177-181	-17.41	0.733
	174-188	-17.36	0.728		182-189	-17.41	0.734
	189-195	-17.17	0.690		190-198	-17.22	0.690
	196-199	-17.17	0.689		199-222	-17.22	0.689
	200-213	-17.17	0.688	118	163-174,176	-17.44	0.739
	214-224	-17.17	0.687		(175)*	-17.42	0.739
	225-227	-17.17	0.686		177-181	-17.43	0.737
113	153-164	-17.38	0.728		182-188	-17.42	0.736
	165-169	-17.37	0.727		189-194	-17.23	0.690
	(170-174)*	-17.35	0.724		195-197	-17.23	0.687
	175-188	-17.37	0.729		198-221	-17.23	0.689
	189-197	-17.18	0.690				