

APPENDIX

R-chains, sum 1504, 1st base order

Mass divided on atom kinds, 1 st base order, R						
aa	C	H	N	O	S	Σ
A1	288	59	70	48	32	497
U1	348	37	14	32	32	463
Σ	636	96	84	80	64	960
		324				
C1	216	37	84	16	-	353
G1	108	19	-	64	-	191
	324	56	84	80	-	544
		220				
Σ	960	152	168	160	64	1504

Number of atoms, 1 st base order, R						
aa	C	H	N	O	S	Σ
A1	24	59	5	3	1	92
U1	29	37	1	2	1	70
	53	96	6	5	2	162
		109				
C1	18	37	6	1	0	62
G1	9	19	0	4	0	32
	27	56	6	5	0	94
		67				
Σ	80	152	12	10	2	256
		176				

Mass divided on atom kinds, 1 st base order, R						
aa	C	H	N	O	S	Σ
A1	288	59	70	48	32	497
G1	108	19	-	64	-	191
	396	78	70	112	32	688
		292				
U1	348	37	14	32	32	463
C1	216	37	84	16	-	353
	564	74	98	48	32	816
		252				
Σ	960	152	168	160	64	1504

Number of atoms, 1 st base order, R						
aa	C	H	N	O	S	Σ
A1	24	59	5	3	1	92
G1	9	19	0	4	0	32
	33	78	5	7	1	124
		91				
U1	29	37	1	2	1	70
C1	18	37	6	1	0	62
	47	74	7	3	1	132
		85				
Σ	80	152	12	10	2	256
		176				

Mass divided on atom kinds, 1 st base order, R						
aa	C	H	N	O	S	Σ
A1	288	59	70	48	32	497
C1	216	37	84	16	-	353
	504	96	154	64	32	850
		346				
U1	348	37	14	32	32	463
G1	108	19	-	64	-	191
	456	56	14	96	32	654
		198				
Σ	960	152	168	160	64	1504

Number of atoms, 1 st base order, R						
aa	C	H	N	O	S	Σ
A1	24	59	5	3	1	92
C1	18	37	6	1	0	62
	42	96	11	4	1	154
		112				
G1	9	19	0	4	0	32
U1	29	37	1	2	1	70
	38	56	1	6	1	102
		64				
Σ	80	152	12	10	2	256
		176				

R-chains, sum 1504, 2nd base order

Mass divided on atom kinds, 2 nd base order, R						
aa	C	H	N	O	S	Σ
A2	300	41	70	112	0	523
U2	348	57	0	0	32	437
	648	98	70	112	32	960
	312					
C2	84	17	0	32	0	133
G2	228	37	98	16	32	411
	312	54	98	48	32	544
	232					
Σ	960	152	168	160	64	1504

Number of atoms, 2 nd base, R						
aa	C	H	N	O	S	Σ
A2	25	41	5	7	0	78
U2	29	57	0	0	1	87
	54	98	5	7	1	165
	111					
C2	7	17	0	2	0	26
G2	19	37	7	1	1	65
	26	54	7	3	1	91
	65					
Σ	80	152	12	10	2	256
	176					

Mass divided on atom kinds, 2 nd base order, R						
aa	C	H	N	O	S	Σ
A2	300	41	70	112	0	523
G2	228	37	98	16	32	411
	528	78	168	128	32	934
	406					
U2	348	57	0	0	32	437
C2	84	17	0	32	0	133
	432	74	0	32	32	570
	138					
Σ	960	152	168	160	64	1504

Number of atoms, 2 nd base, R						
aa	C	H	N	O	S	Σ
A2	25	41	5	7	0	78
G2	19	37	7	1	1	65
	44	78	12	8	1	143
	99					
U2	29	57	0	0	1	87
C2	7	17	0	2	0	26
	36	74	0	2	1	113
	77					
Σ	80	152	12	10	2	256
	176					

Mass divided on atom kinds, 2 nd base order, R						
aa	C	H	N	O	S	Σ
A2	300	41	70	112	0	523
C2	84	17	0	32	0	133
	384	58	70	144	0	656
	272					
656 -	228	37	98	16	32	411
U2	348	57	0	0	32	437
	576	94	98	16	64	848
	272					
Σ	960	152	168	160	64	1504

848 - 656 = 192

Number of atoms, 2 nd base, R						
aa	C	H	N	O	S	Σ
A2	25	41	5	7	0	78
C2	7	17	0	2	0	26
	32	58	5	9	0	104
U2	29	57	0	0	1	87
G2	19	37	7	1	1	65
	48	94	7	1	2	152
Σ	80	152	12	10	2	256
	176					

R+B-chains unbound, sum 3276, 1st base order

Mass division on atom kinds, 1st base order R+B

aa	C	H	N	O	S	Σ
A1	480	89	182	304	32	1087
U1	492	61	98	224	32	907
	972	150	280	528	64	1994
			1022			
C1	336	55	154	176	0	721
G1	228	39	70	224	0	561
	564	94	224	400	0	1282
			718			
Σ	1536	244	504	928	64	3276
			1740			

Number of atoms 1st base order. R+B

aa	C	H	N	O	S	Σ
A1	40	89	13	19	1	162
U1	41	61	7	14	1	124
	81	150	20	33	2	286
			205			
C1	28	55	11	11	0	105
G1	19	39	5	14	0	77
	47	94	16	25	0	182
			135			
Σ	128	244	36	58	2	468
			340			

Mass division on atom kinds, 1st base order R+B:

aa	C	H	N	O	S	Σ
A1	480	89	182	304	32	1087
G1	228	39	70	224	0	561
	708	128	252	528	32	1648
			940			
U1	492	61	98	224	32	907
C1	336	55	154	176	0	721
	828	116	252	400	32	1628
			800			
Σ	1536	244	504	928	64	3276
			1740			

Number of atoms 1st base order. R+B

aa	C	H	N	O	S	Σ
A1	40	89	13	19	1	162
G1	19	39	5	14	0	77
	59	128	18	33	1	239
			180			
U1	41	61	7	14	1	124
C1	28	55	11	11	0	105
	69	116	18	25	1	229
			160			
Σ	128	244	36	58	2	468
			340			

Mass division on atom kinds, 1st base order R+B

aa	C	H	N	O	S	Σ
A1	480	89	182	304	32	1087
C1	336	55	154	176	0	721
	816	144	336	480	32	1808
			992			
U1	492	61	98	224	32	907
G1	228	39	70	224	0	561
	720	100	168	448	32	1468
			748			
Σ	1536	244	504	928	64	3276
			1740			

Number of atoms 1st base order. R+B

aa	C	H	N	O	S	Σ
A1	40	89	13	19	1	162
C1	28	55	11	11	0	105
	68	144	24	30	1	267
			199			
U1	41	61	7	14	1	124
G1	19	39	5	14	0	77
	60	100	12	28	1	201
			141			
Σ	128	244	36	58	2	468
			340			

R+B-chains unbound, sum 3276, 2nd base order

Mass division on atom kinds, 2nd base order, R+B

aa	C	H	N	O	S	Σ
A2	468	68	168	336	0	1040
U2	516	85	98	224	32	955
	984	153	266	560	32	1995
	1011					
C2	180	32	56	160	0	428
G2	372	59	182	208	32	853
	552	91	238	368	32	1281
	729 = 27²					
Σ	1536	244	504	928	64	3276
	1740					

Number of atoms, 2nd base order, R+B:

aa	C	H	N	O	S	Σ
A2	39	68	12	21	0	140
U2	43	85	7	14	1	150
	82	153	19	35	1	290
	208					
C2	15	32	4	10	0	61
G2	31	59	13	13	1	117
	46	91	17	23	1	178
	132					
Σ	128	244	36	58	2	468

Mass division on atom kinds, 2nd base order R+B

aa	C	H	N	O	S	Σ
A2	468	68	168	336	0	1040
G2	372	59	182	208	32	853
	840	127	350	544	32	1893
	1053					
U2	516	85	98	224	32	955
C2	180	32	56	160	0	428
	696	117	154	384	32	1383
	687					
Σ	1536	244	504	928	64	3276
	1740					

Number of atoms, 2nd base order, R+B:

aa	C	H	N	O	S	Σ
A2	39	68	12	21	0	140
G2	31	59	13	13	1	117
	70	127	25	34	1	257
	187					
C2	15	32	4	10	0	61
U2	43	85	7	14	1	150
	58	117	11	24	1	211
	153					
Σ	128	244	36	58	2	468

Mass division on atom kinds, 2nd base order R+B

aa	C	H	N	O	S	Σ
A2	468	68	168	336	0	1040
C2	180	32	56	160	0	428
	648	100	224	496	0	1468
	820					
U2	516	85	98	224	32	955
G2	372	59	182	208	32	853
	888	144	280	432	64	1808
	920					
Σ	1536	244	504	928	64	3276
	1740					

Number of different atoms, 2nd base order, R+B:

aa	C	H	N	O	S	Σ
A2	39	68	12	21	0	140
C2	15	32	4	10	0	61
	54	100	16	31	0	201
	147					
U2	43	85	7	14	1	150
G2	31	59	13	13	1	117
	74	144	20	27	2	267
	193					
Σ	128	244	36	58	2	468

R+ B-chains bound, sum 2848, 1st base order:

Mass numbers, 1 st base order, R+B bound						
aa	C	H	N	O	S	Σ
A1	480	75	182	176	32	945
U1	492	49	98	128	32	799
Σ	972	124	280	304	64	1744
	772					
C1	336	47	154	96	0	633
G1	228	29	70	144	0	471
	564	76	224	240	0	1104
	540					
Σ	1536	200	504	544	64	2848
	1312					

Number of atoms, 1 st base order, R+B bound:						
aa	C	H	N	O	S	Σ
A1	40	75	13	11	1	140
U1	41	49	7	8	1	106
	81	124	20	19	2	246
	165					
C1	28	47	11	6	0	92
G1	19	29	5	9	0	62
	47	76	16	15	0	154
	107					
Σ	128	200	36	34	2	400
	272					

Mass numbers, 1 st base order, R+B bound						
aa	C	H	N	O	S	Σ
A1	480	75	182	176	32	945
G1	228	29	70	144	0	471
Σ	708	104	252	320	32	1416
	708					
U1	492	49	98	128	32	799
C1	336	47	154	96	0	633
	828	96	252	224	32	1432
	604					
Σ	1536	200	504	544	64	2848
	1312					

Number of atoms, 1 st base order, R+B bound						
aa	C	H	N	O	S	Σ
A1	40	75	13	11	1	140
G1	19	29	5	9	0	62
	59	104	18	20	1	202
	143					
U1	41	49	7	8	1	106
C1	28	47	11	6	0	92
	69	96	18	14	1	198
	129					
Σ	128	200	36	34	2	400
	272					

Mass numbers, 1 st base order, R+B bound						
aa	C	H	N	O	S	Σ
A1	480	75	182	176	32	945
C1	336	47	154	96	0	633
Σ	816	122	336	272	32	1578
	762					
U1	492	49	98	128	32	799
G1	228	29	70	144	0	471
	720	78	168	272	32	1270
	550					
Σ	1536	200	504	544	64	2848
	1312					

Number of atoms, 1 st base order, R+B bound						
aa	C	H	N	O	S	Σ
A1	40	75	13	11	1	140
C1	28	47	11	6	0	92
	68	122	24	17	1	232
	164					
U1	41	49	7	8	1	106
G1	19	29	5	9	0	62
	60	78	12	17	1	168
	108					
Σ	128	200	36	34	2	400
	272					

R+ B-chains bound, sum 2848, 2nd base order:

Mass number, 2 nd base order, R + B bound						
aa	C	H	N	O	S	Σ
A2	468	55	168	224	0	915
U2	516	71	98	112	32	829
	984	126	266	336	32	1744
	760					
C2	180	25	56	96	0	357
G2	372	49	182	112	32	747
	552	74	238	208	32	1104
	552					
Σ	1536	200	504	544	64	2848
	1312					

Number of atoms, 2 nd base, R+B bound						
aa	C	H	N	O	S	Σ
A2	39	55	12	14	0	120
U2	43	71	7	7	1	129
	82	126	19	21	1	249
	167					
C2	15	25	4	6	0	50
G2	31	49	13	7	1	101
	46	74	17	13	1	151
	105					
Σ	128	200	36	34	2	400
	272					

Mass number, 2 nd base order, R + B bound						
aa	C	H	N	O	S	Σ
A2	468	55	168	224	0	915
G2	372	49	182	112	32	747
	840	104	350	336	32	1662
	822					
U2	516	71	98	112	32	829
C2	180	25	56	96	0	357
	696	96	154	208	32	1186
	490					
Σ	1536	200	504	544	64	2848
	1312					

Number of atoms, 2 nd base, R+B bound						
aa	C	H	N	O	S	Σ
A2	39	55	12	14	0	120
G2	31	49	13	7	1	101
	70	104	25	21	1	221
	151					
U2	43	71	7	7	1	129
C2	15	25	4	6	0	50
	58	96	11	13	1	179
	121					
Σ	128	200	36	34	2	400
	272					

Mass number, 2 nd base order, R + B bound						
aa	C	H	N	O	S	Σ
A2	468	55	168	224	0	915
C2	180	25	56	96	0	357
	648	80	224	320	0	1272
	624					
U2	516	71	98	112	32	829
G2	372	49	182	112	32	747
	888	120	280	224	64	1576
	688					
Σ	1536	200	504	544	64	2848
	1312					

Number of atoms, 2 nd base, R+B bound						
aa	C	H	N	O	S	Σ
A2	39	55	12	14	0	120
C2	15	25	4	6	0	50
	54	80	16	20	0	170
	116					
U2	43	71	7	7	1	129
G2	31	49	13	7	1	101
	74	120	20	14	2	230
	156					
Σ	128	200	36	34	2	400
	272					