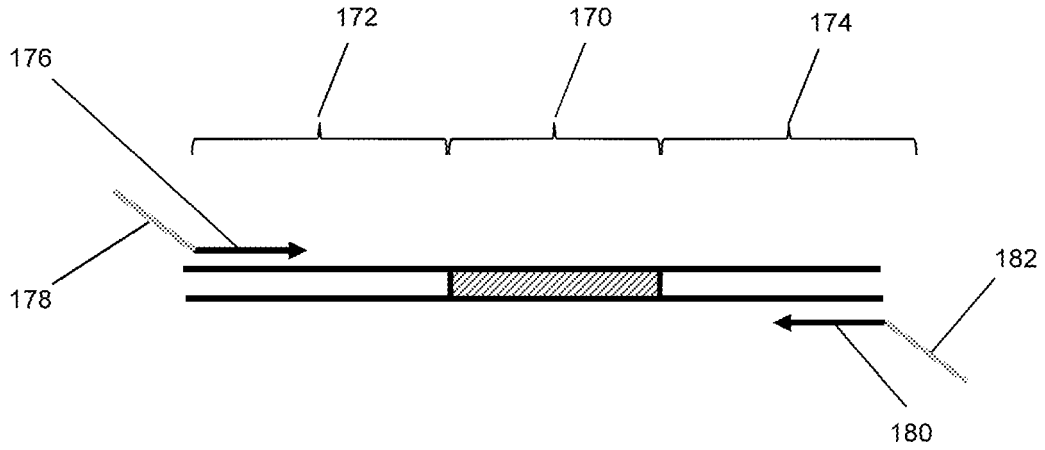
172
170
174
176
178
182
180

Fig. 1A

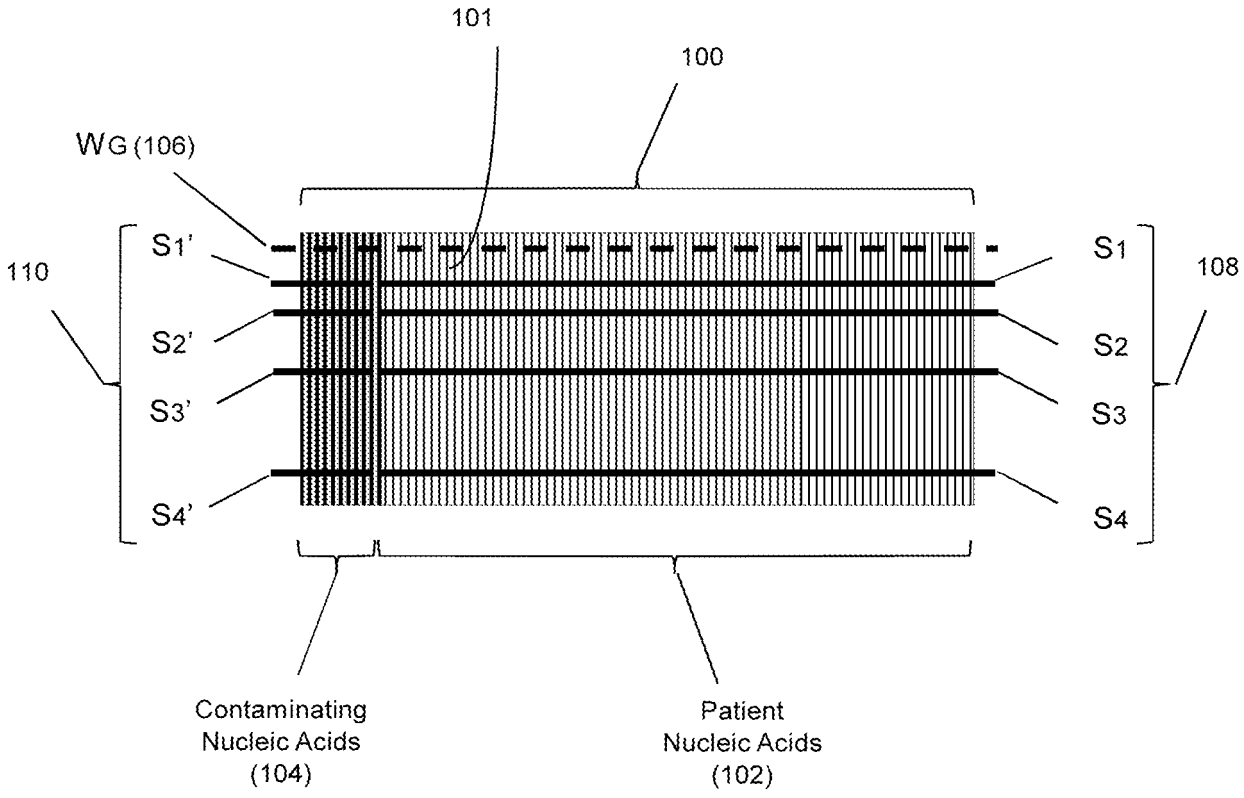
101
100
WG (106)
110
S1'
S2'
S3'
S4'
S1
S2
S3
S4
108
Contaminating
Nucleic Acids
(104)
Patient
Nucleic Acids
(102)

Fig. 1B

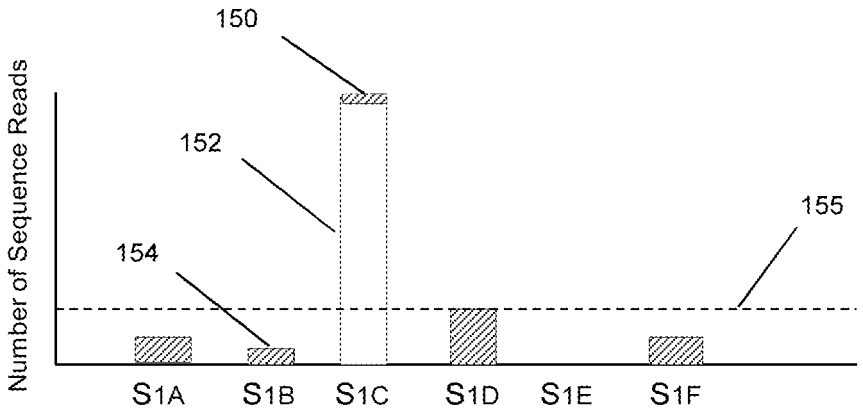
150
152
154
155
Number of Sequence Reads
S1A
S1B
S1C
S1D
S1E
S1F

Fig. 1C

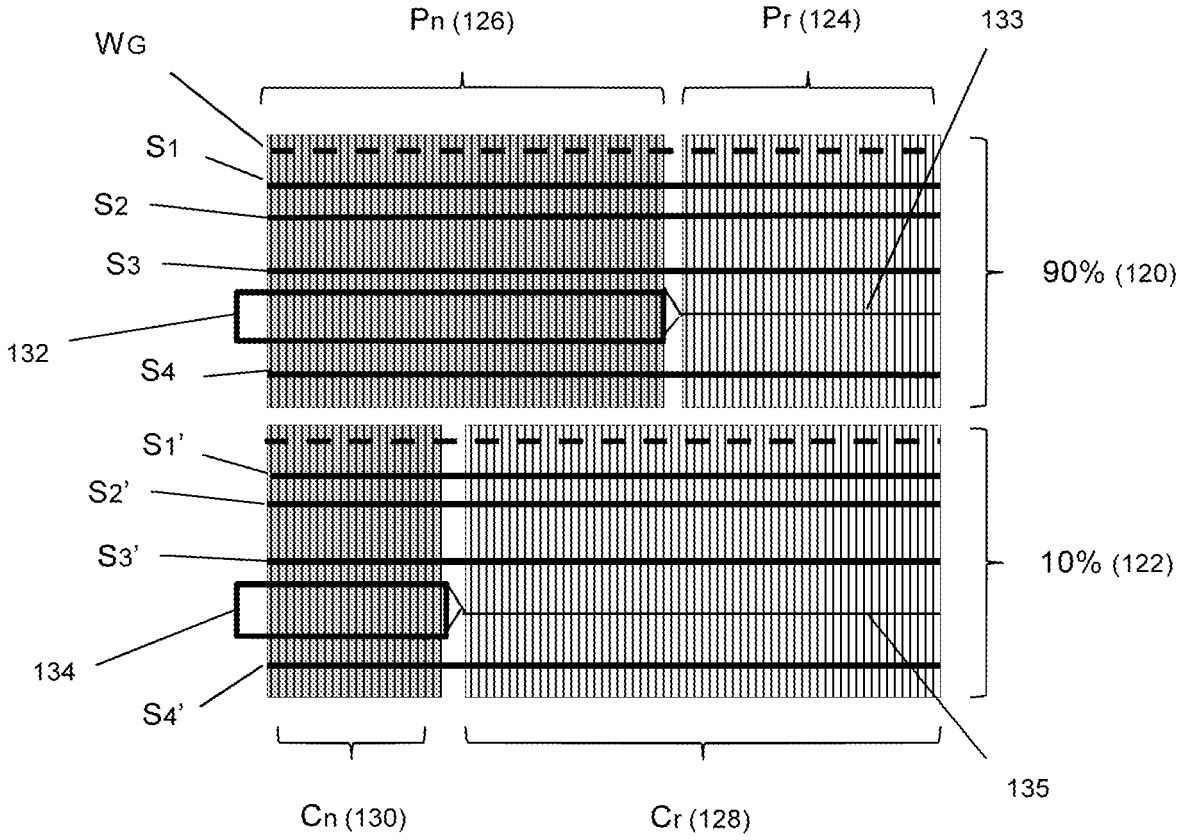
Pn (126)
Pr (124)
133
WG
S1
S2
S3
132
S4
90% (120)
S1'
S2'
S3'
134
S4'
10% (122)
135
Cn (130)
Cr (128)

Fig. 1D

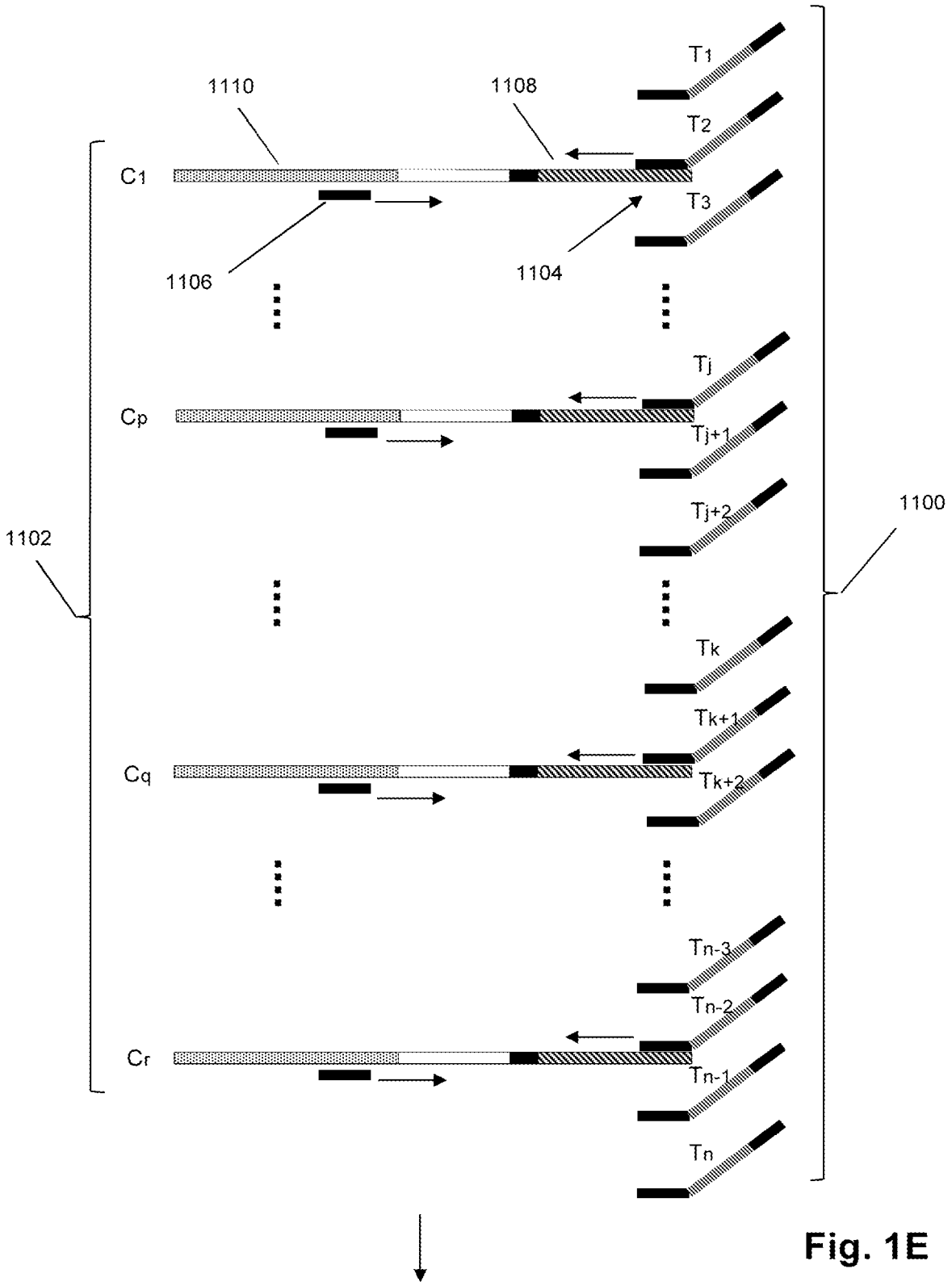
1110
1108
T1
T2
T3
C1
1106
1104
Tj
Cp
Tj+1
Tj+2
1100
1102
Tk
Tk+1
Cq
Tk+2
Tn-3
Tn-2
Cr
Tn-1
Tn

Fig. 1E

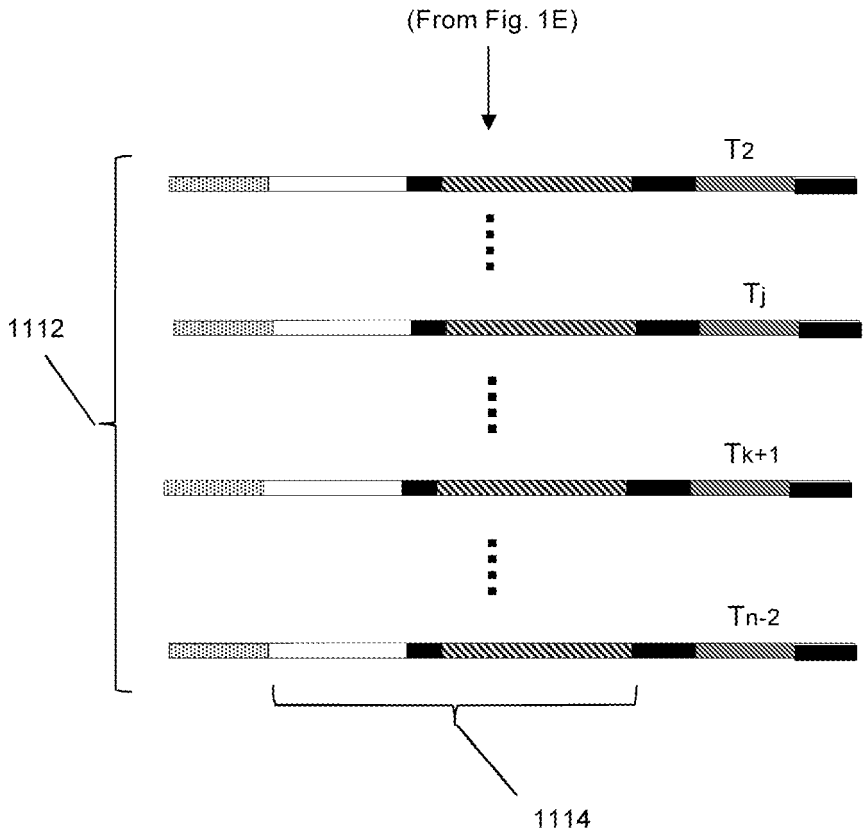
(From Fig. 1E)
T2
Tj
Tk+1
Tn-2
1112
1114

Fig. 1F

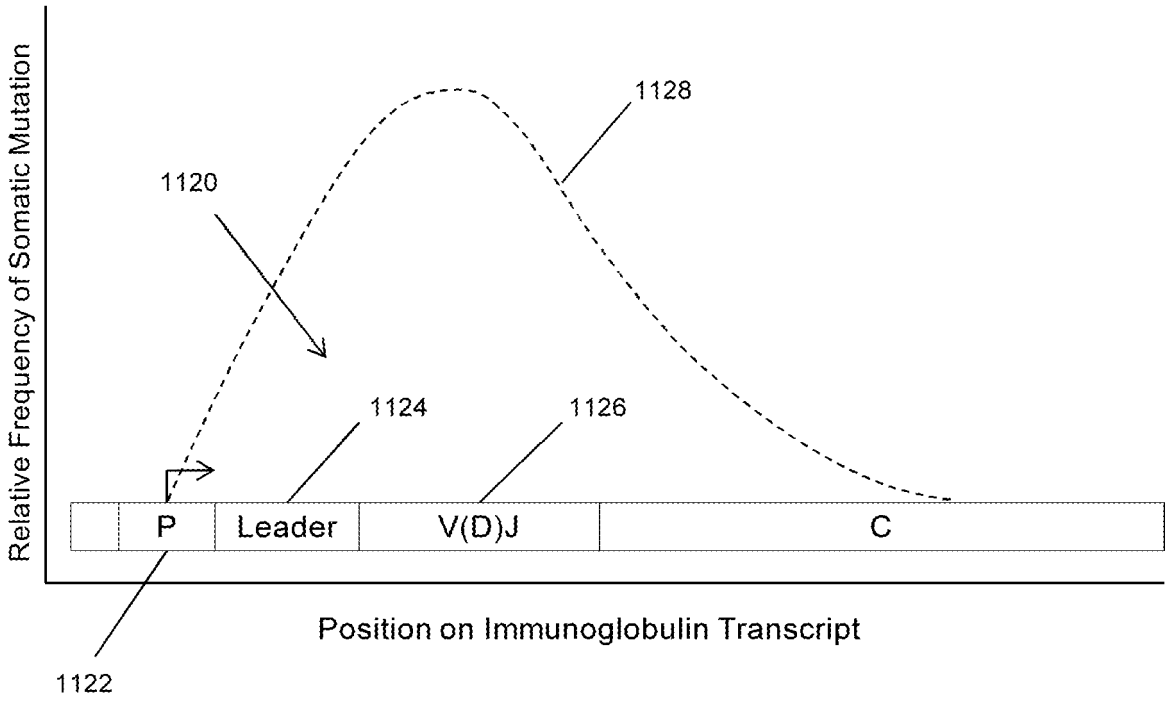
Relative Frequency of Somatic Mutation
1128
1120
1124
1126
P
Leader
V(D)J
C
1122
Position on Immunoglobulin Transcript

Fig. 1G

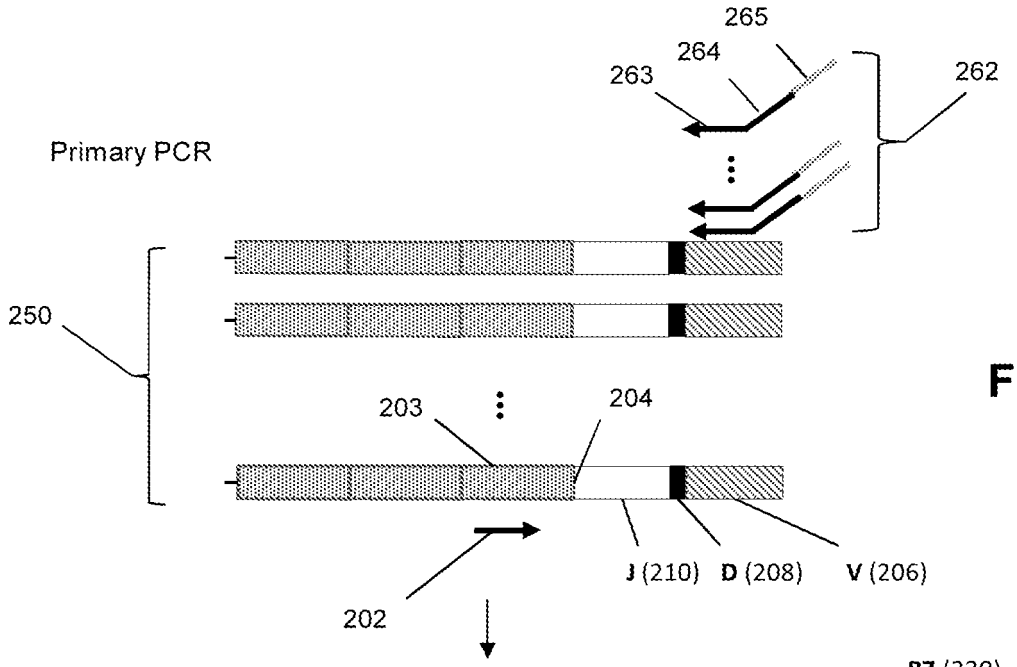

Fig. 2A

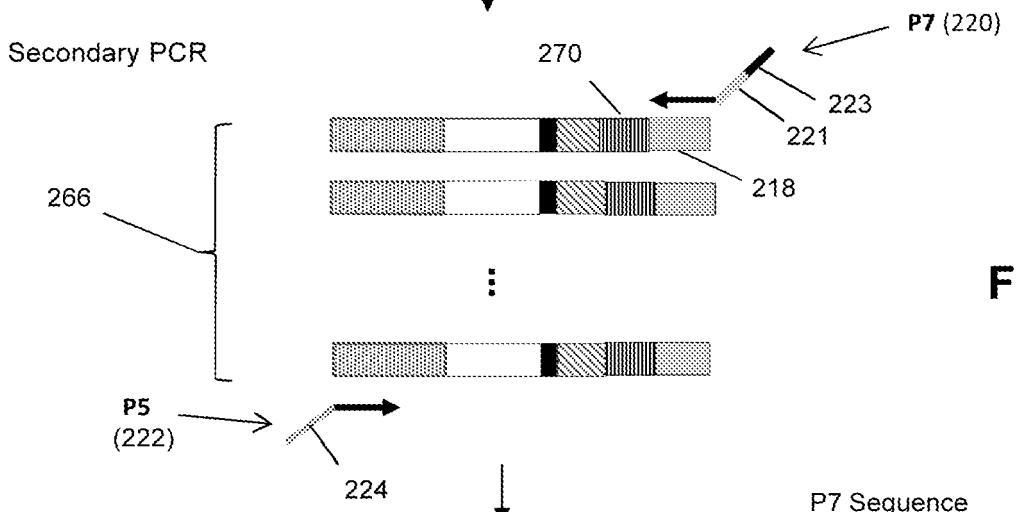

Fig. 2B

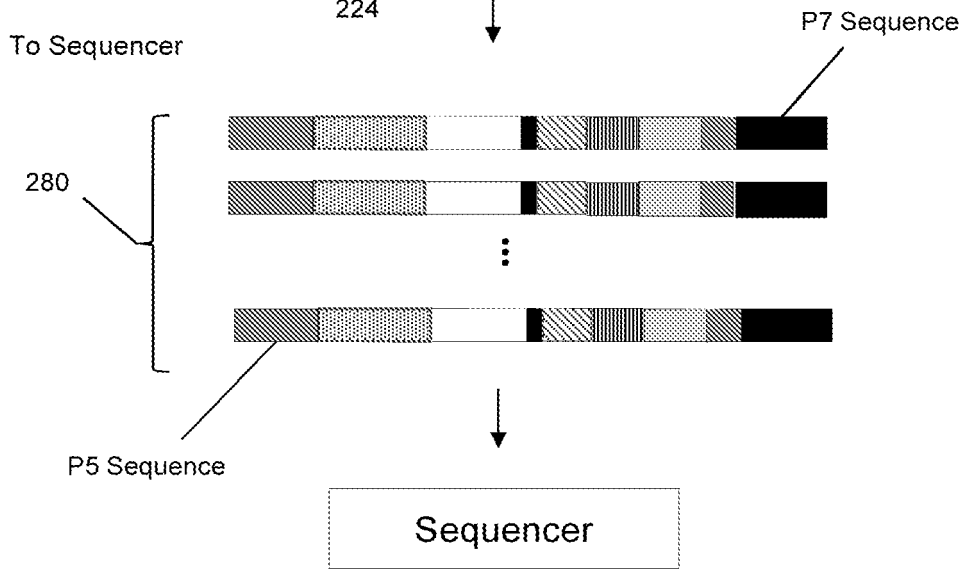

Fig. 2C

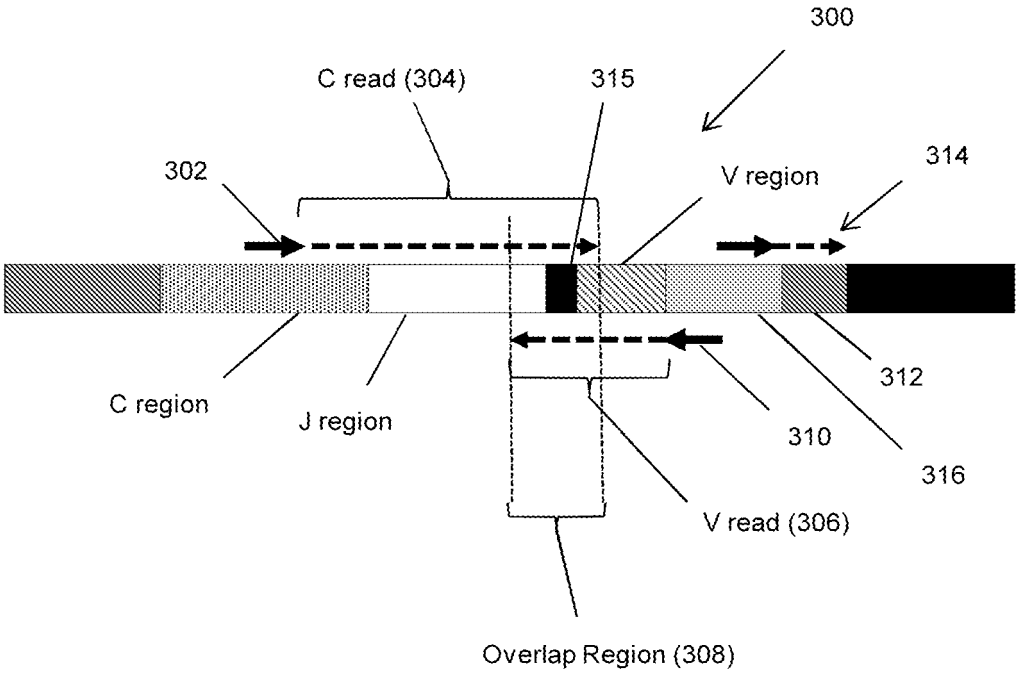
300
C read (304)
315
302
V region
314
C region
J region
312
310
316
V read (306)
Overlap Region (308)

Fig. 3A

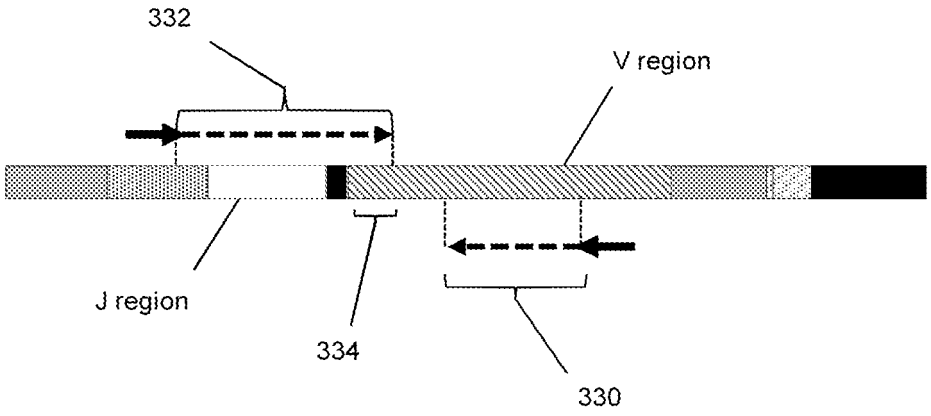
332
V region
J region
334
330

Fig. 3B

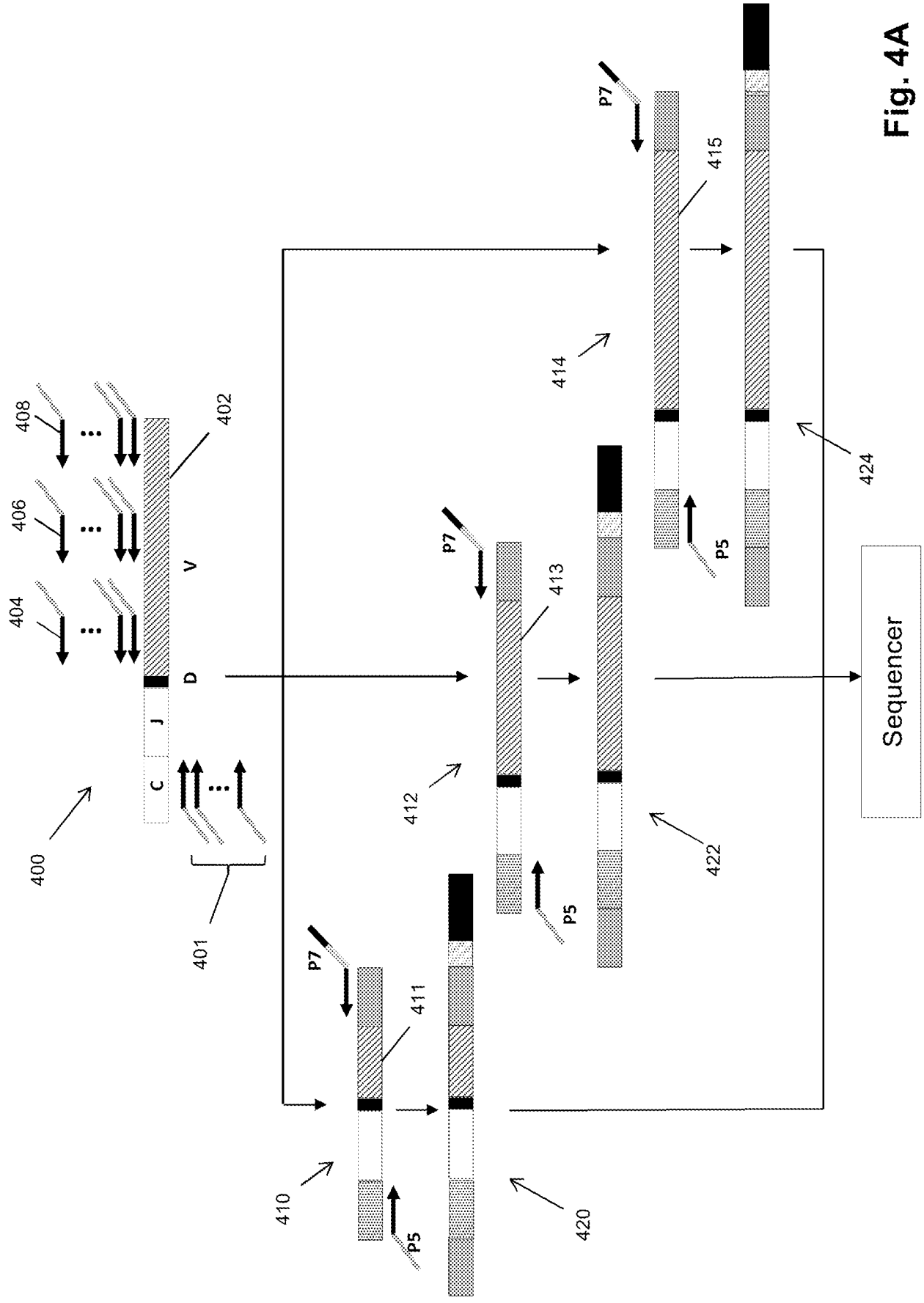
400
401
402
404
406
408
V
D
J
C
410
411
412
413
414
415
420
422
424
P5
P7
Sequencer

Fig. 4A

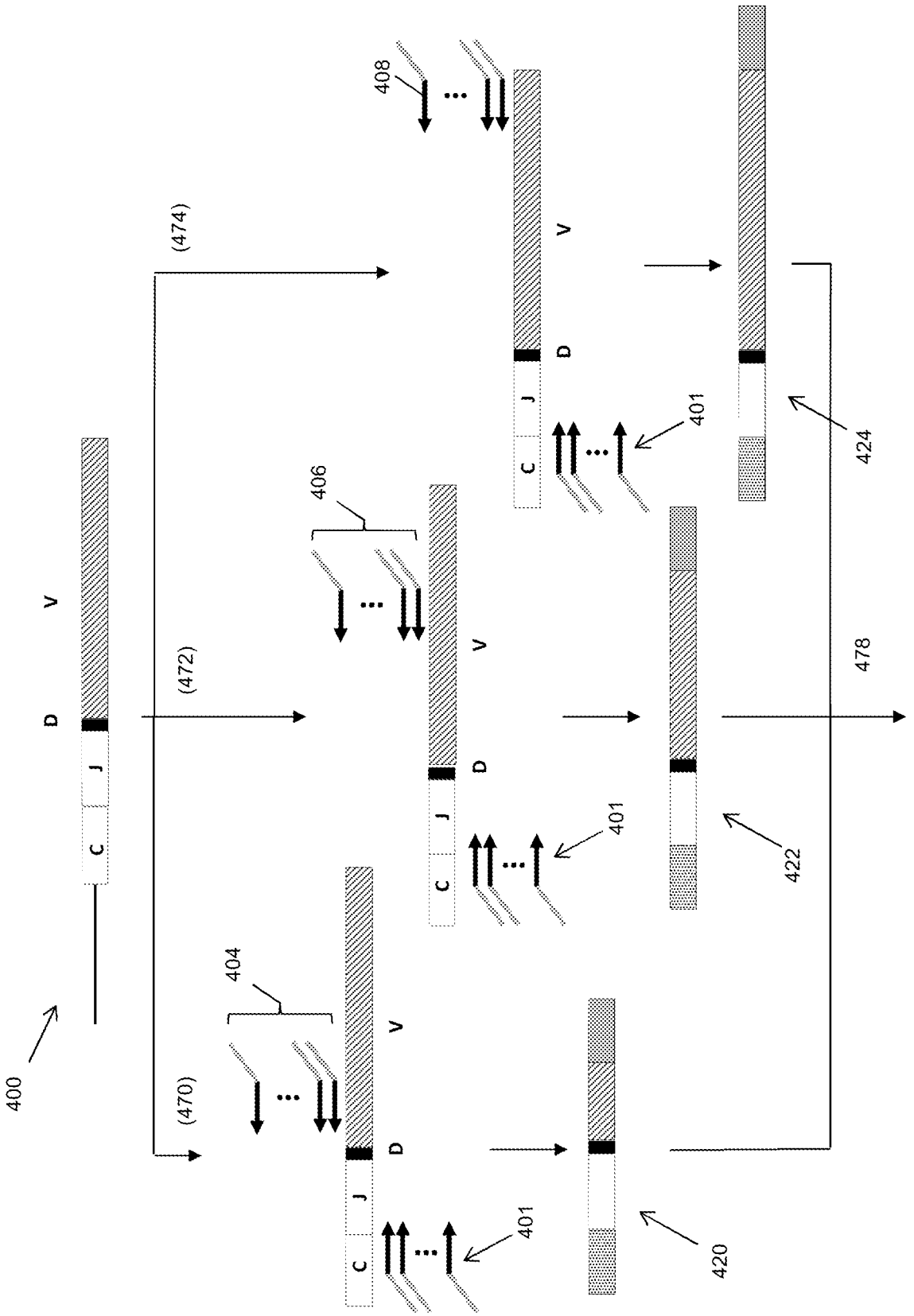

Fig. 4B

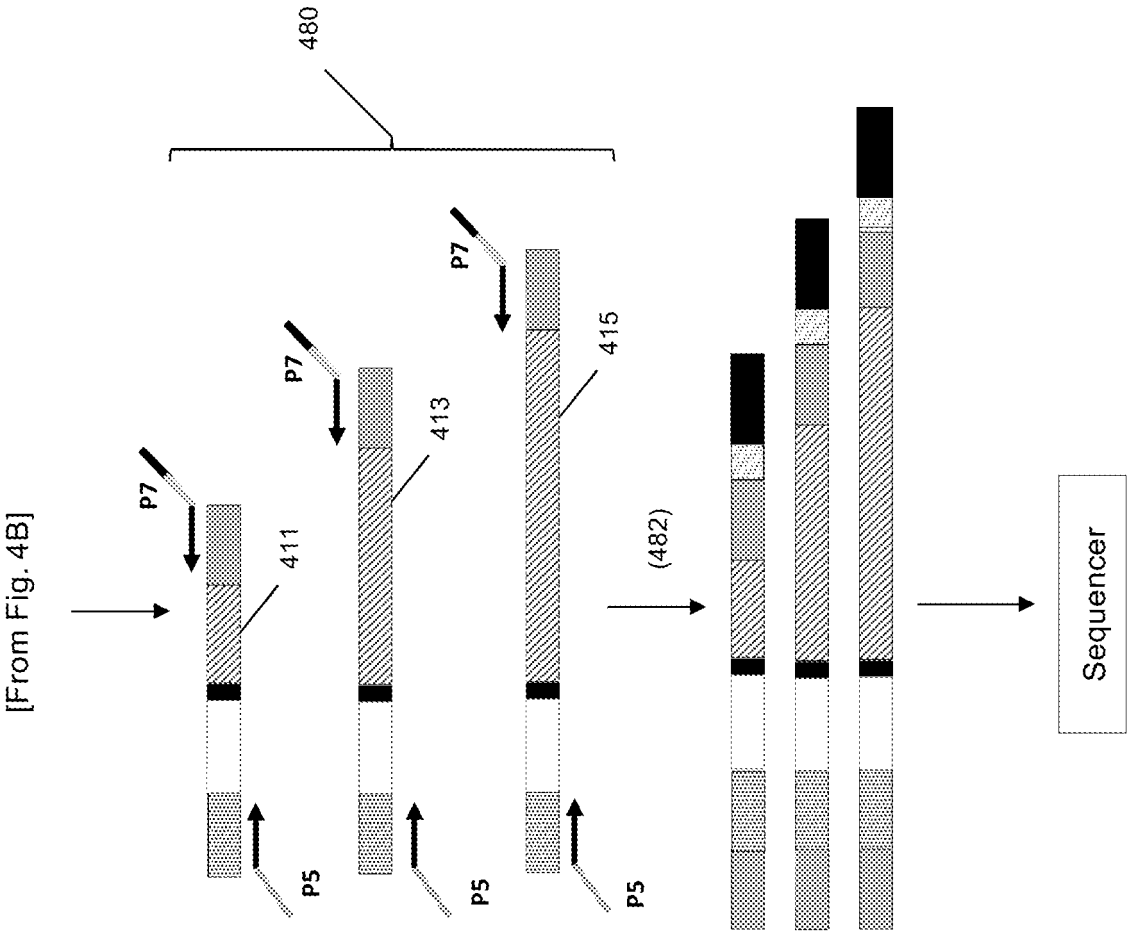

Fig. 4C

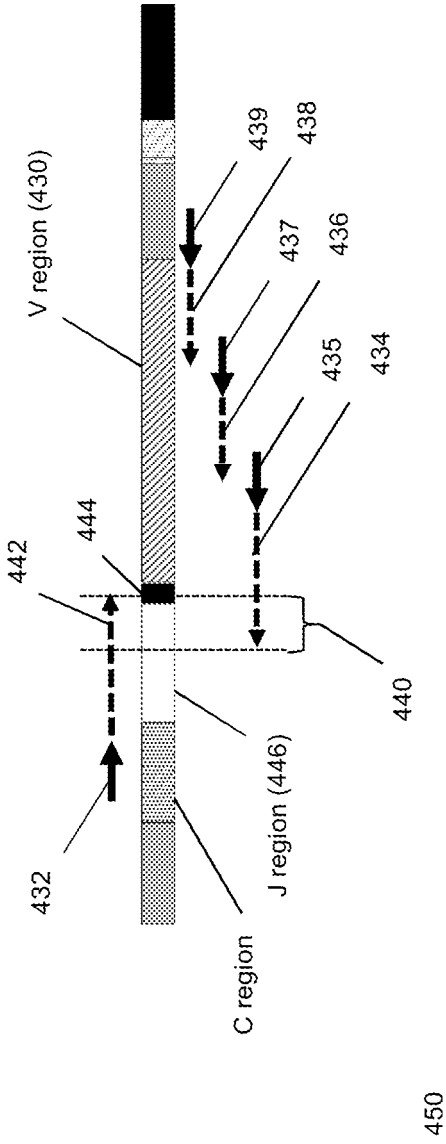
V region (430)
439
438
437
436
435
434
444
442
440
432
J region (446)
C region

Fig. 4D

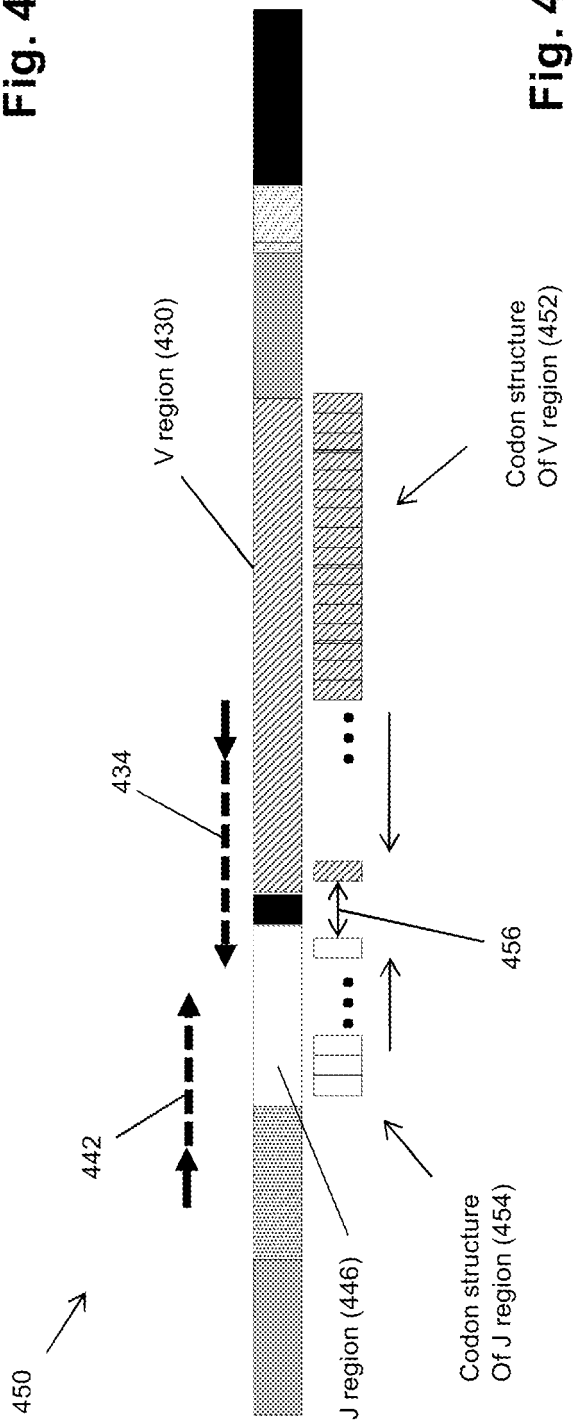
V region (430)
Codon structure
Of V region (452)
434
442
456
450
J region (446)
Codon structure
Of J region (454)

Fig. 4E

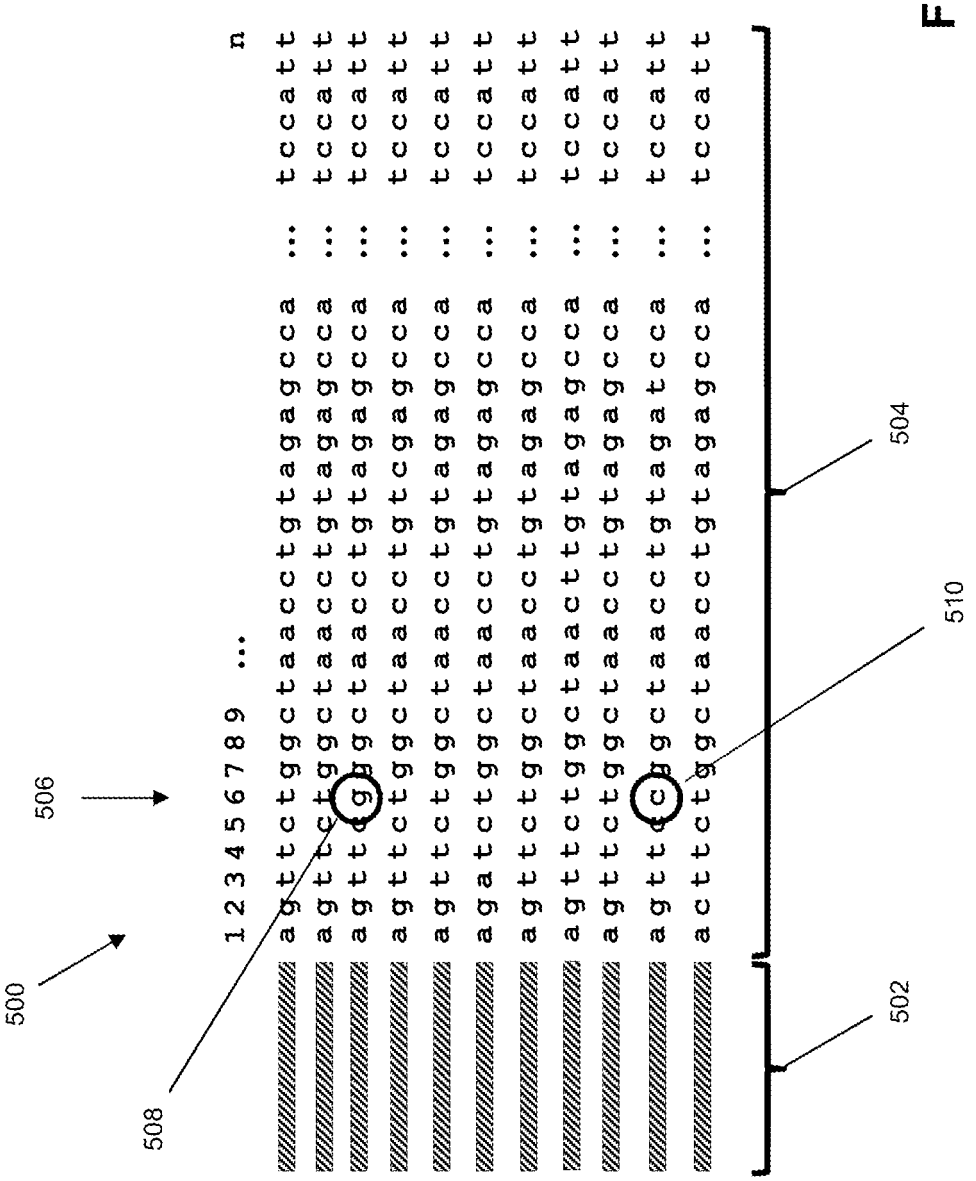
n
1 2 3 4 5 6 7 8 9 ...
agttctggctaacctgtagagccca ... tccatt
agttctggctaacctgtagagccca ... tccatt
agttctggctaacctgtagagccca ... tccatt
agttctggctaacctgtcgagccca ... tccatt
agttctggctaacctgtagagccca ... tccatt
agatctggctaacctgtagagccca ... tccatt
agttctggctaacctgtagagccca ... tccatt
agttctggctaacttgtagagccca ... tccatt
agttctggctaacctgtagagccca ... tccatt
agttctggctaacctgtagatccca ... tccatt
acttctggctaacctgtagagccca ... tccatt
500
502
504
506
508
510

Fig. 5