

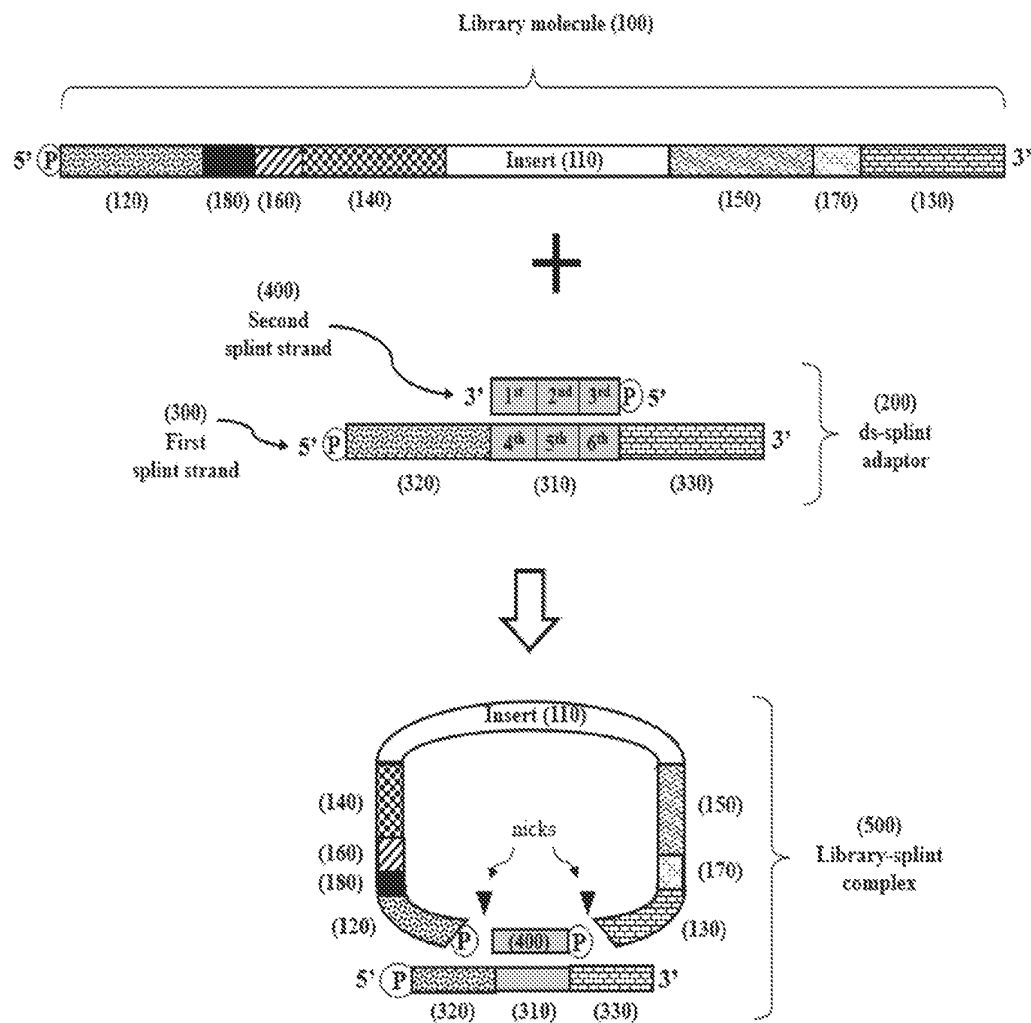


FIG. 1

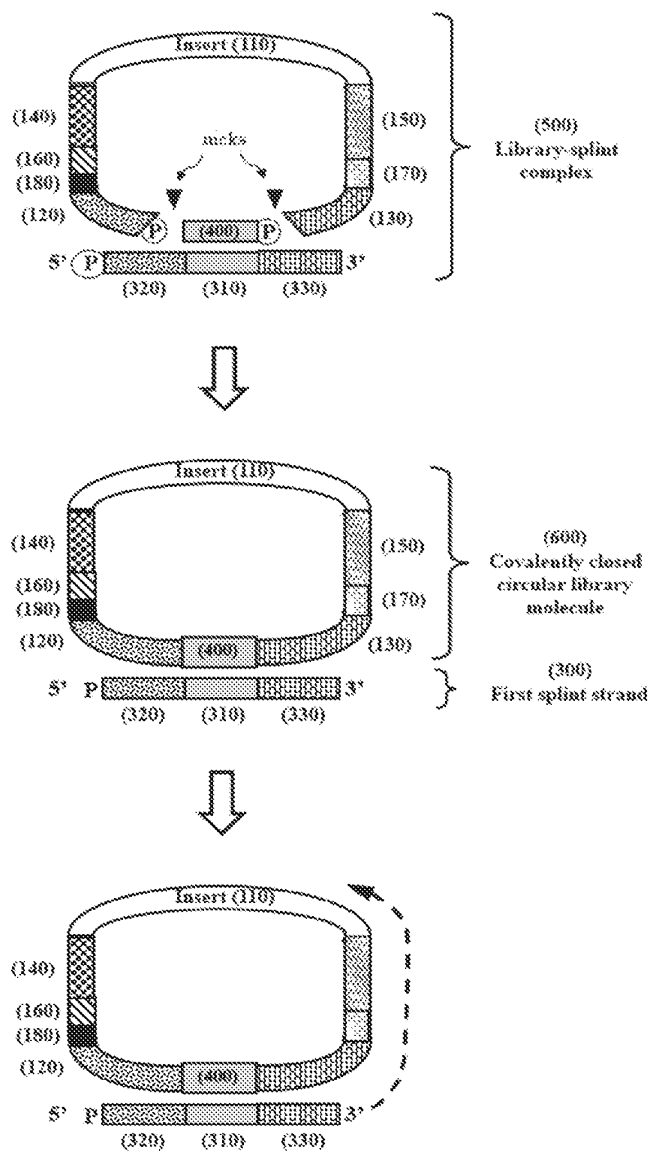


FIG. 2

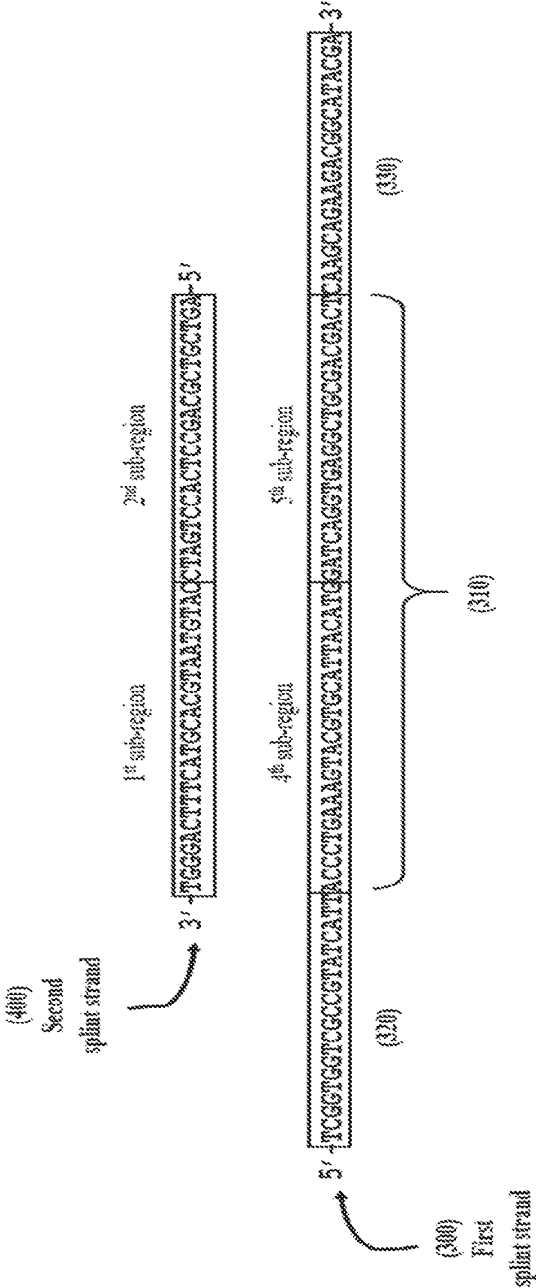


FIG. 3

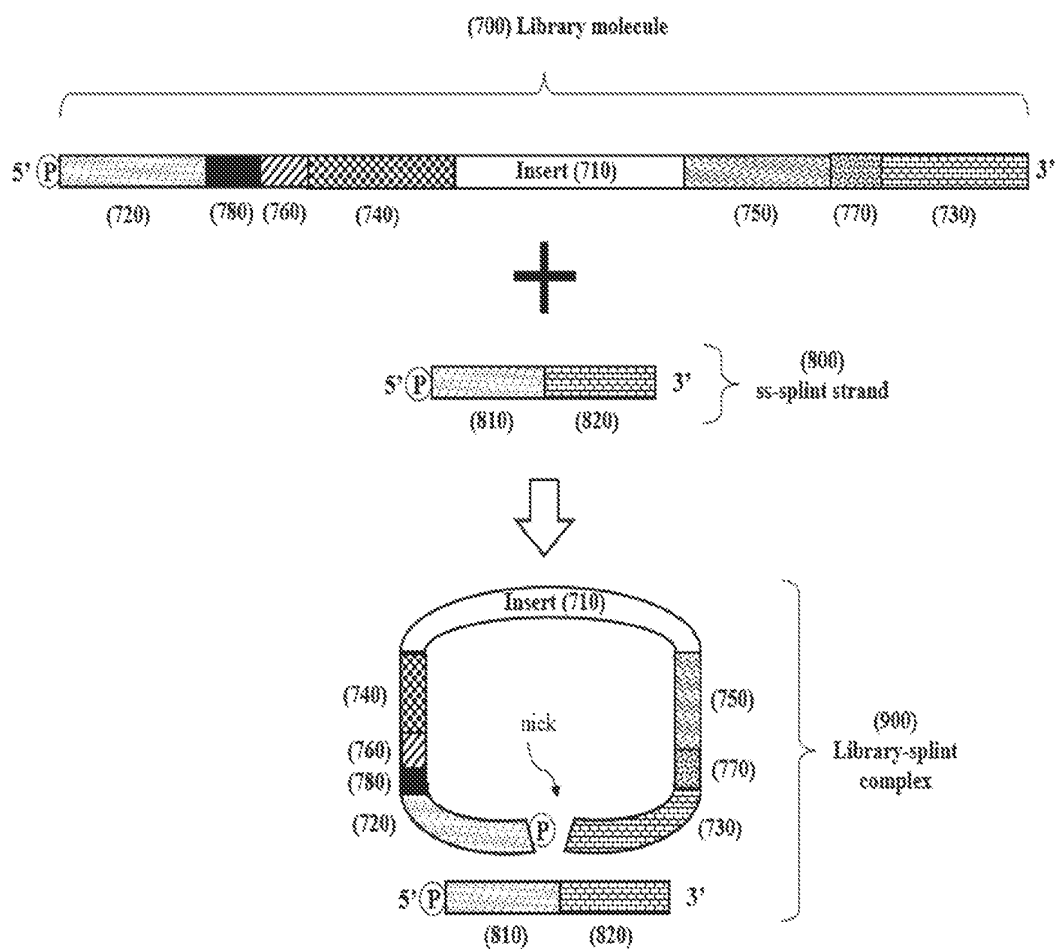


FIG. 4

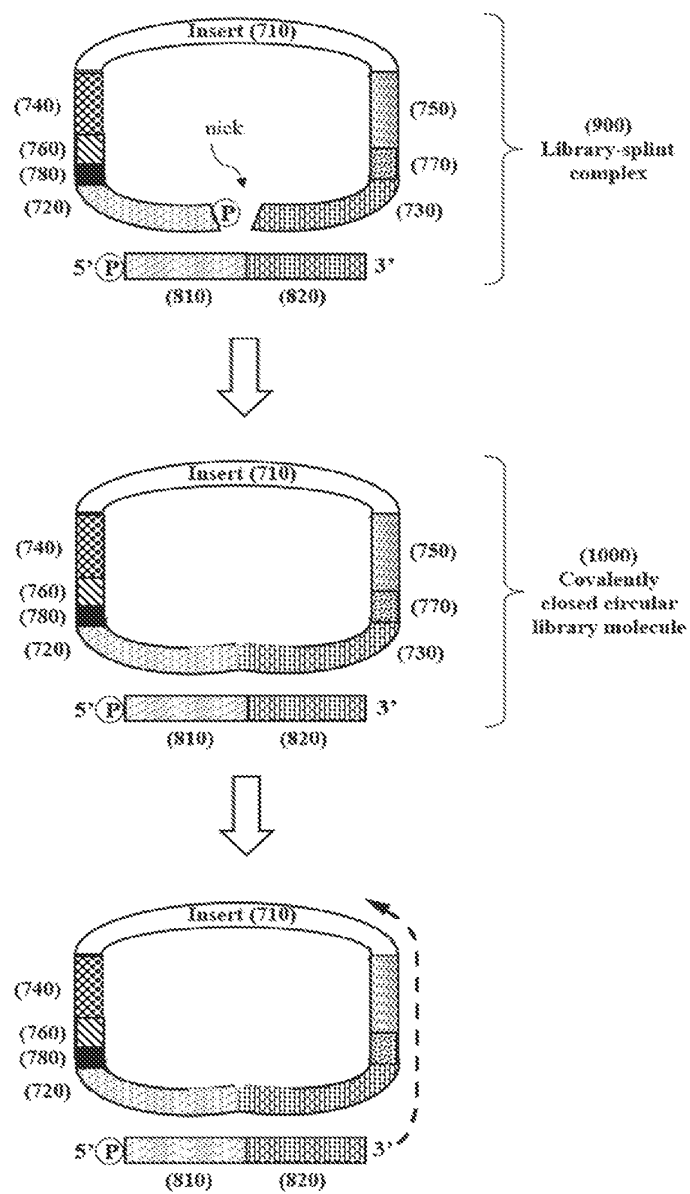


FIG. 5

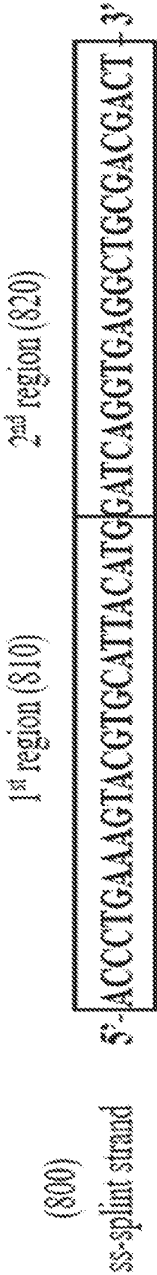


FIG. 6

Table 1:

First left index sequences (160) or (760)		
Index Name	Sequence (orientation: 5' to 3')	SEQ ID NO:
007	CCACTCATF	11
008	AACTAACAC	12
037	TTATGGAGA	13
022	GAGTTCGCT	14
002	TTGTTGTTC	15
035	CCATATTCT	16
001	AATCATGCG	17
014	GGACAGCTC	18
004	CCAACACGA	19
034	TGTAAGCGG	20
012	ATAACTACC	21
019	CGCACTGTG	22
020	TTACACTCA	23
045	ATTGACCTG	24
011	CACCAGTGT	25
038	GGTGCTCCT	26
033	ATCCGCGTC	27
026	CGGTCCTAA	28
046	TGGTATGCC	29
036	AAGATAGAG	30
015	CCGGTATCG	31
042	GGTCCGAGA	32
023	CGTGATAGC	33
081	TATGTGGCC	34
024	GTACCAGAG	35
016	TACATCAGA	36
028	AGGCGACCT	37
039	CAGCACAAG	38
031	CTCTGTCCA	39
013	TCTIGTGAT	40
043	CCAGGAGTC	41
025	ACCGTTCGT	42
044	GACACTTAT	43

FIG. 7-1

Table 1 (continued):

First left index sequences (160) or (760)		
Index Name	Sequence (orientation: 5' to 3')	SEQ ID NO:
005	TTGGCTGGA	44
017	ATTGCGTAT	45
080	CTCGAAGAT	46
094	TGAACGGAT	47
049	AATACCGGT	48
058	GGCCTTCAA	49
067	TGAGAACAA	50
079	AGATCTCTA	51
054	GGCAACGCA	52
086	CGAATGACA	53
051	CAAGTGCAG	54
059	CAAGCAACT	55
065	TTCAGGTCT	56
064	CAGTAGGTA	57
060	ACGAAGGCT	58
053	TTCTATTGG	59
062	GTGTCTCAC	60
077	GCTGAATGT	61
071	GAAGATGTT	62
088	ATTCGTTGA	63
095	TCGCATAGT	64
057	TCATGCTTG	65
050	TGGAGTATA	66
055	AAGGTGATT	67
063	AGAGGAAGG	68
069	GATCGCGAA	69
056	CTTCGACAC	70
066	GCTATTATG	71
082	GA CTGATTA	72
085	ACGGCCAAC	73
075	CTTATCGCG	74
061	TC TCTCTGC	75
073	CAGCGTICC	76

FIG. 7-2

Table 1 (continued):

First left index sequences (160) or (760)		
Index Name	Sequence (orientation: 5' to 3')	SEQ ID NO:
092	GATTCACGG	77
074	TCCTCGCAA	78
072	ACCACAATT	79
097	CGTTGAATT	80
106	CAGTTGACC	81
111	CCACGAACG	82
112	AGCACCTAG	83
113	TAGGCCGTC	84
114	GTTCTGTAA	85
115	CACTGACGT	86
116	TCCAATACC	87
117	ATATTGGTG	88
119	CCGACCACT	89
120	GAACAACGA	90
121	ATTGTAACC	91
123	TCCACCTGT	92
124	CTACATGAA	93
127	CCAATGTTG	94
132	GTTACCAAC	95
133	CAATTGTGA	96
134	AGGCGTAAG	97
135	ACAGCCGTT	98
136	CACCAACCG	99
137	TCTAGCCTC	100
138	GTGTTAGGA	101
139	CGCGAGACT	102
140	TCAACTTAG	103
141	AAGAGCGCC	104
143	CGACCTTGA	105
144	TACGTACTC	106

FIG. 7-3

Table 2:

First right index sequences (170) or (770)		
Index Name	Sequence (orientation: 5' to 3')	SEQ ID NO:
001	NNNGTAGGAGCC	107
003	NNNCCGCTGCTA	108
004	NNNAACAACAAG	109
006	NNNGGTGGTCTA	110
008	NNNTTGGCCAAC	111
011	NNNTCCATCGTT	112
013	NNNATTCTAGAG	113
014	NNNGGATGCAAT	114
015	NNNCAGGAGTGC	115
016	NNNATCACACTA	116
018	NNNGCGGATGAT	117
019	NNNCGAATCTGG	118
021	NNNATGCGTCCT	119
022	NNNGGTCTGAGC	120
023	NNNGCCTCATAG	121
024	NNNCTATACCTC	122
025	NNNAAGATTGGA	123
026	NNNTGCCAGCAT	124
027	NNNACTAGCTCA	125
028	NNNTAAGTACTG	126
029	NNNCGTGCAACG	127
030	NNNGTCCACGGA	128
034	NNNAGGTCCGTG	129
035	NNNCTCGTTAGT	130
036	NNNACACAATCC	131
037	NNNTCTTCGCAA	132
038	NNNGGTCAC TTG	133
039	NNNCCGATATAT	134
040	NNNACAGGTCCG	135
042	NNNGTGCGGTTC	136
043	NNNCACGCACAT	137
044	NNNTGGATCACA	138
045	NNNATATTCGGT	139

FIG. 7-4

Table 2 (continued):

First right index sequences (170) or (770)		
Index Name	Sequence (orientation: 5' to 3')	SEQ ID NO:
047	NNNCCAGAGATG	140
048	NNNTACCGTTGA	141
049	NNNATTGATACC	142
051	NNNCCAAGACCG	143
052	NNNAAGCCGGAC	144
054	NNNGGATCTCCG	145
055	NNNCCTGGAGAA	146
056	NNNATCCTCATC	147
057	NNNTATGTCTCT	148
059	NNNACGTAGAGT	149
060	NNNGTACTTCAA	150
061	NNNCATTCCAGC	151
062	NNNTGGCGTGAG	152
063	NNNTCAACGTCT	153
064	NNNAACGAAGTC	154
065	NNNCTTAATCGA	155
066	NNNGCGGCCTTA	156
068	NNNTTCCGAACG	157
071	NNNCGCACCGAA	158
073	NNNTAGTGACCA	159
074	NNNGTTATGCTG	160
075	NNNCTCCGCTAT	161
076	NNNTGAGATGGA	162
078	NNNGATAGATGT	163
079	NNNCCTCATGTC	164
081	NNNGACTTAACC	165
082	NNNCAAGGCGTT	166
083	NNNAGGAAGCCG	167
084	NNNTCACTCAAG	168
085	NNNTCCACTAGC	169
087	NNNCTGTCATGA	170
088	NNNAGCGTTCAG	171
089	NNNGCATAGGCA	172

FIG. 7-5

Table 2 (continued):

First right index sequences (170) or (770)		
Index Name	Sequence (orientation: 5' to 3')	SEQ ID NO:
091	NNNTATCAACGC	173
092	NNNACAGTGTA	174
096	NNNTGCGGATAC	175
097	NNNGCTATTACT	176
106	NNNGCTCAATAA	177
111	NNNCAGAGCTCC	178
112	NNNACGGCACGA	179
113	NNNTTCCTTGGC	180
114	NNNGGTTGGATG	181
115	NNNCCACACCAT	182
116	NNNTACATATCG	183
117	NNNATTGCCATA	184
119	NNNCCATCTTGC	185
120	NNNTGGAATGCT	186
121	NNNAATTCGTCT	187
123	NNNCACCGACTC	188
124	NNNACAATCAGC	189
127	NNNCCGCGAACA	190
132	NNNGAGCATCTA	191
133	NNNCTATTAGAC	192
134	NNNTGTGGCAGT	193
135	NNNCAACCGCAG	194
136	NNNACCTATTCT	195
137	NNNTGTAGGCCA	196
138	NNNGTGGTTATC	197
139	NNNCACCAATGG	198
140	NNNACAACCGAT	199
141	NNNTGTCTGTAA	200
143	NNNTCCGCACTC	201
144	NNNGAGAGCAGA	202

FIG. 7-6

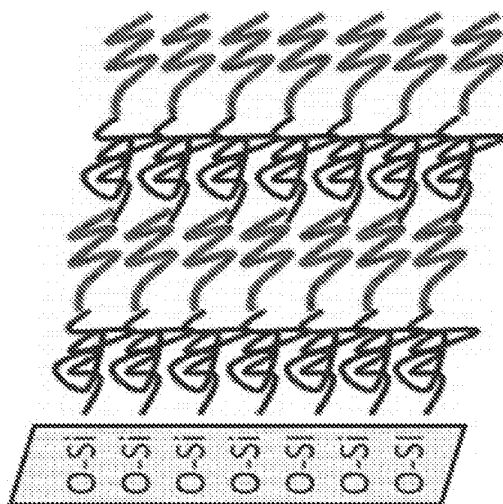


FIG. 8

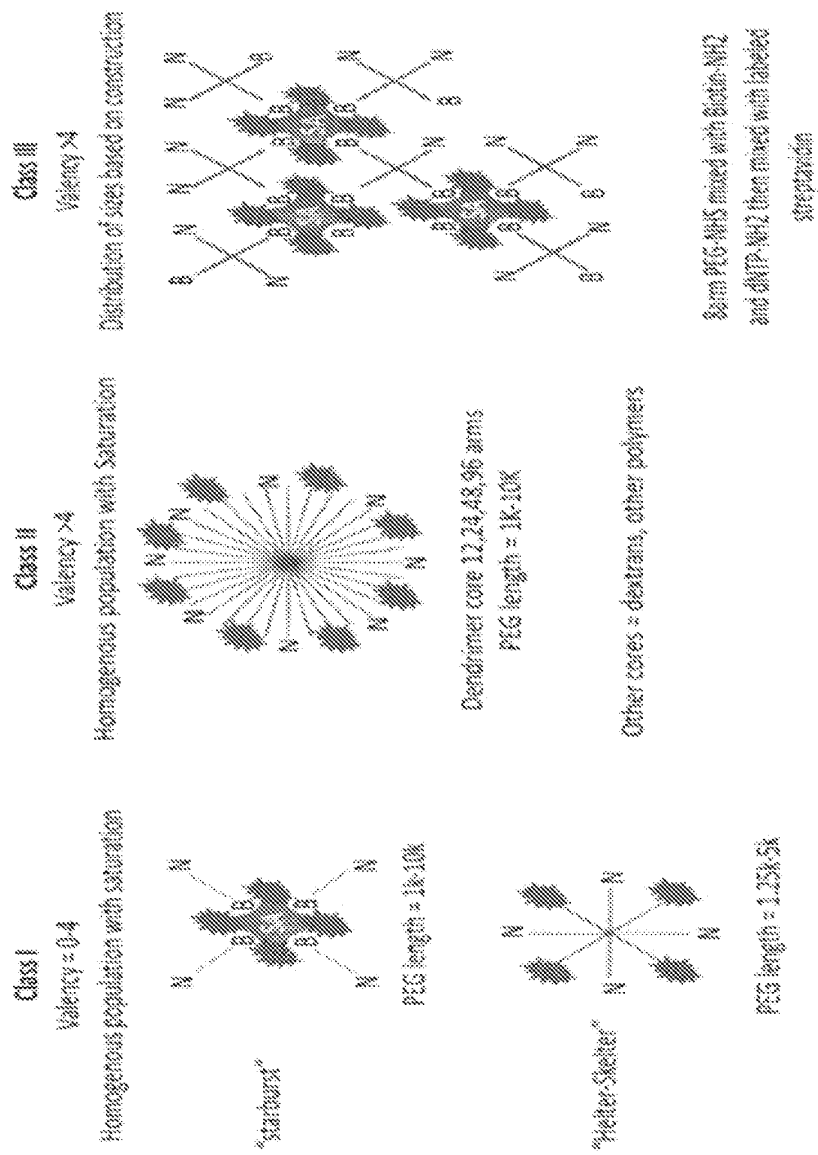


FIG. 9

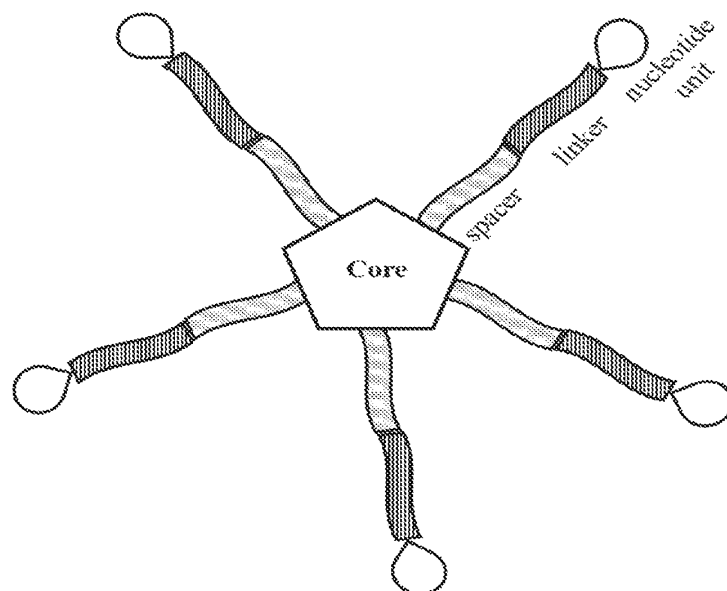


FIG. 10

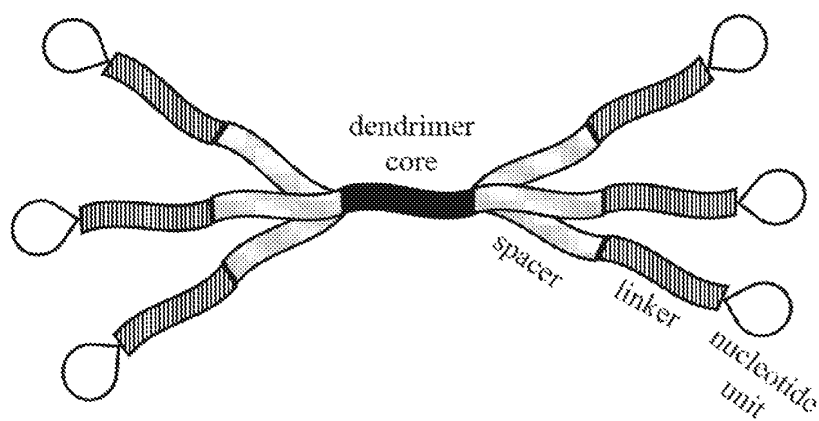


FIG. 11

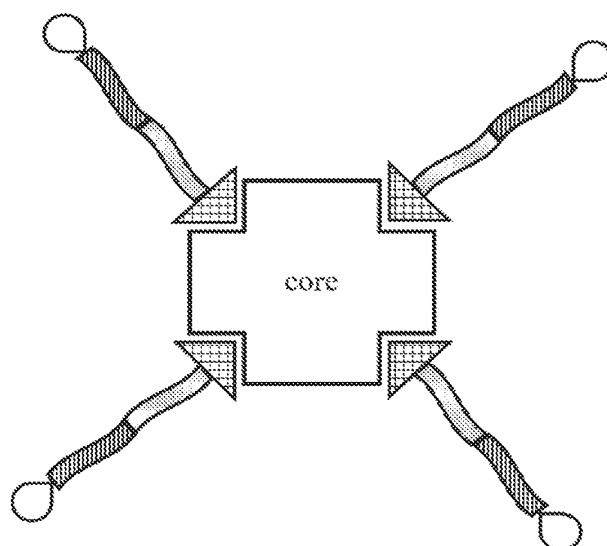


FIG. 12

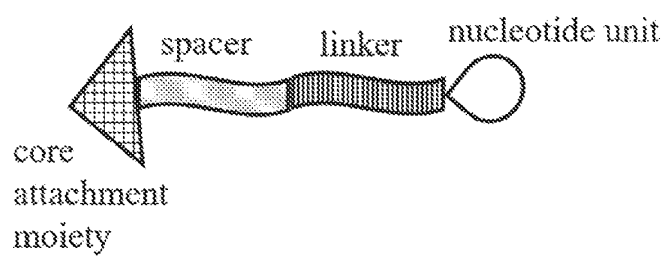
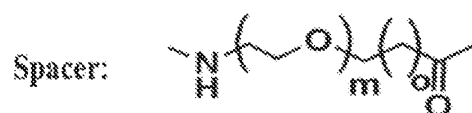
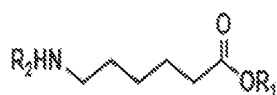


FIG. 13

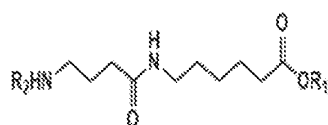


Linkers:

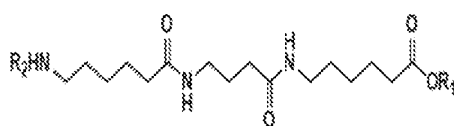
11 atom Linker:



16 atom Linker:



23 atom Linker:



N3 Linker:

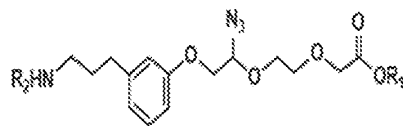


FIG. 14

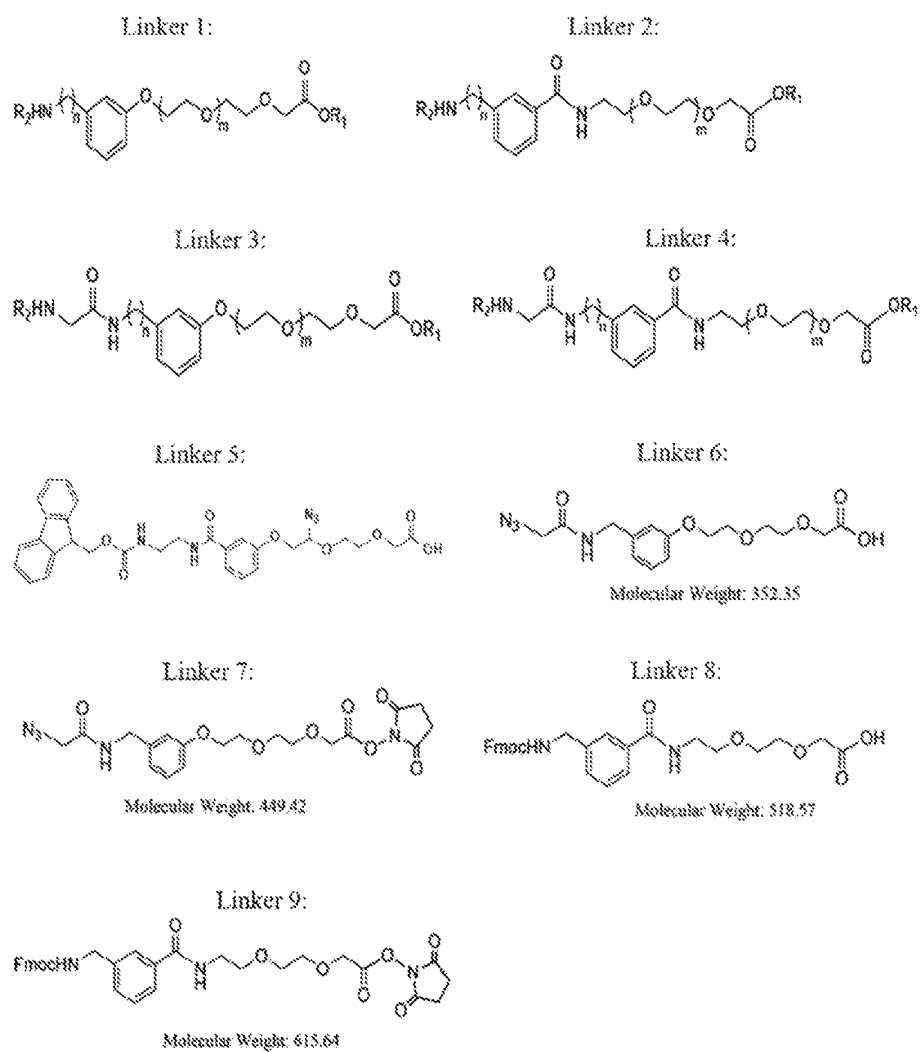
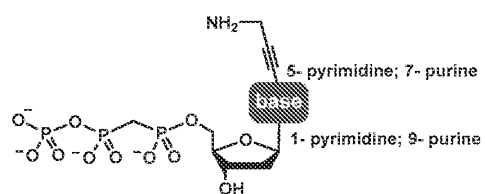
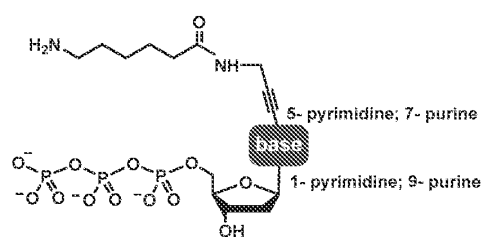
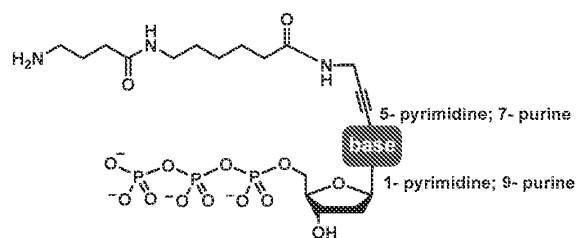


FIG. 15

dNTP-PA-NH₂:**dNTP-PA-11 Atom Linker-NH₂:****dNTP-PA-16 Atom Linker-NH₂:****FIG. 16**

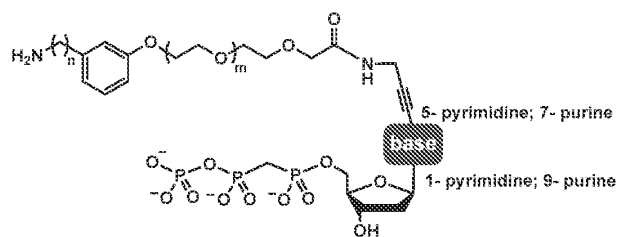
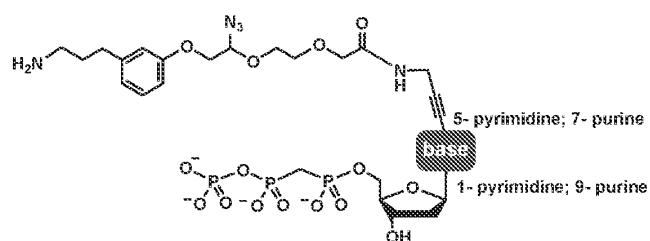
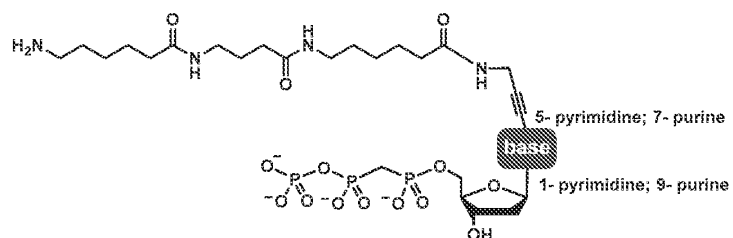
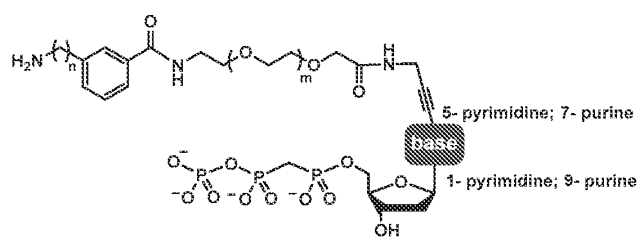
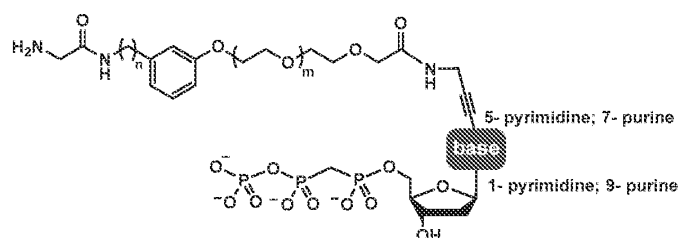
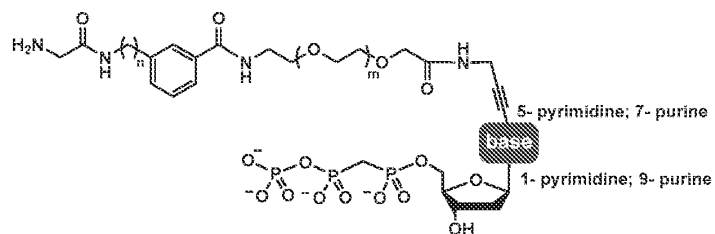


FIG. 17

dNTP-PA-Linker 2-NH₂:**dNTP-PA-Linker 3-NH₂:****dNTP-PA-Linker 4-NH₂:****FIG. 18**

dNTP-PA-N3 Linker-NH₂:

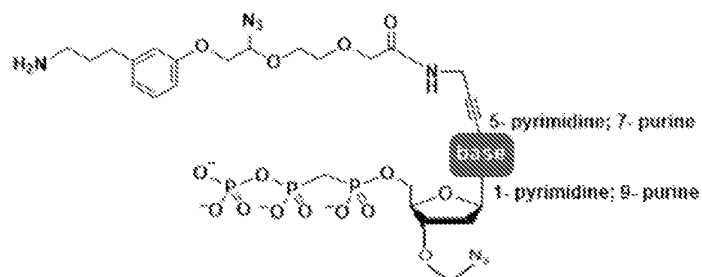


FIG. 19

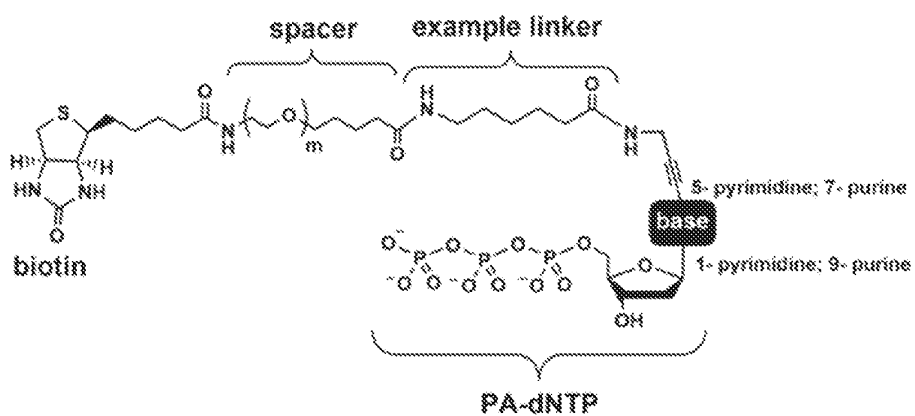


FIG. 20

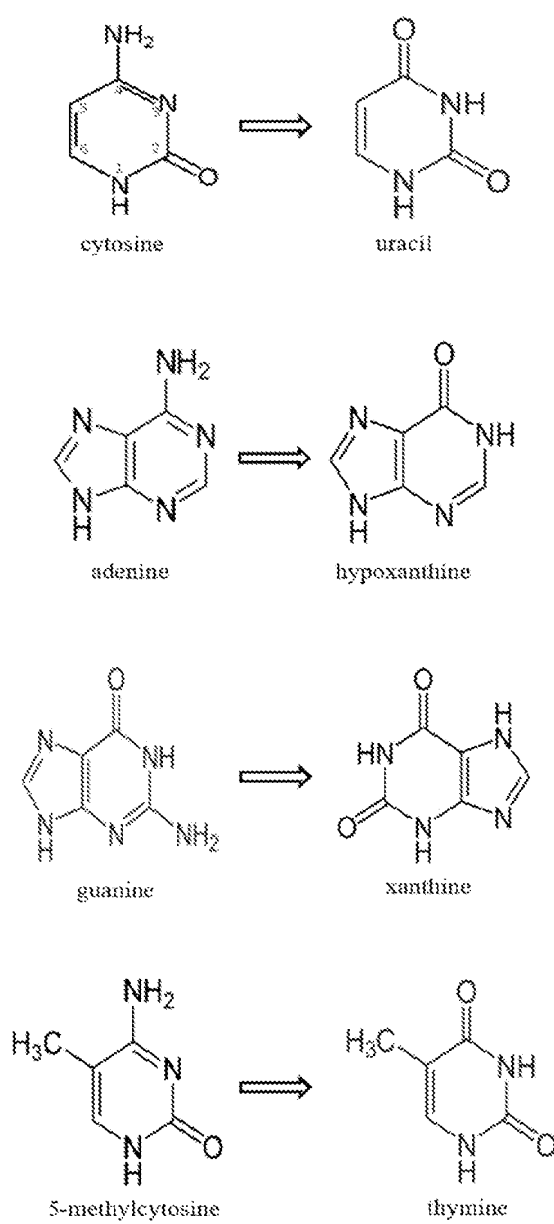


FIG. 21

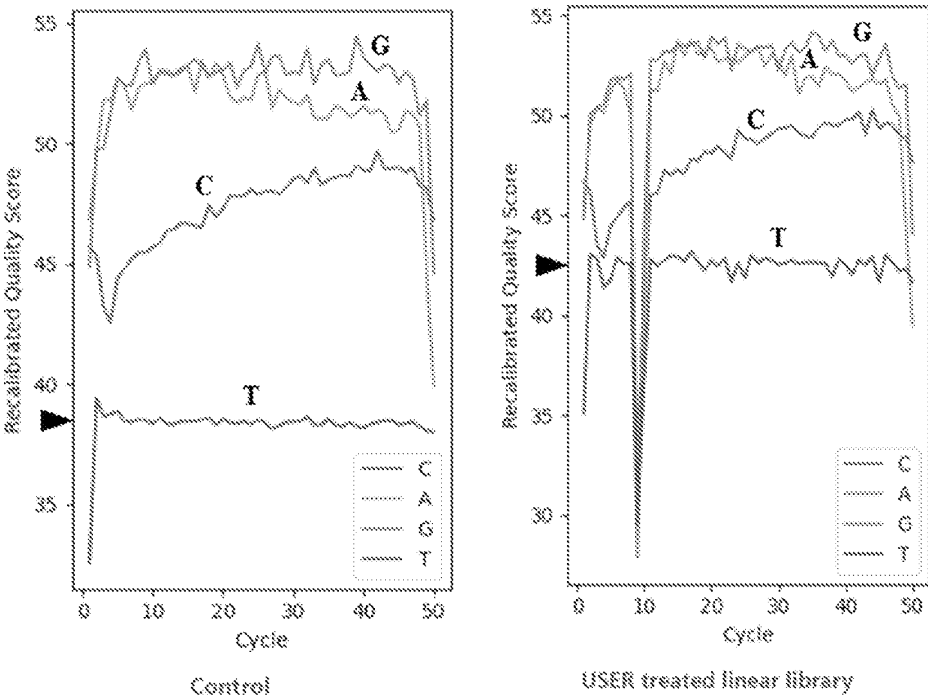


FIG. 22

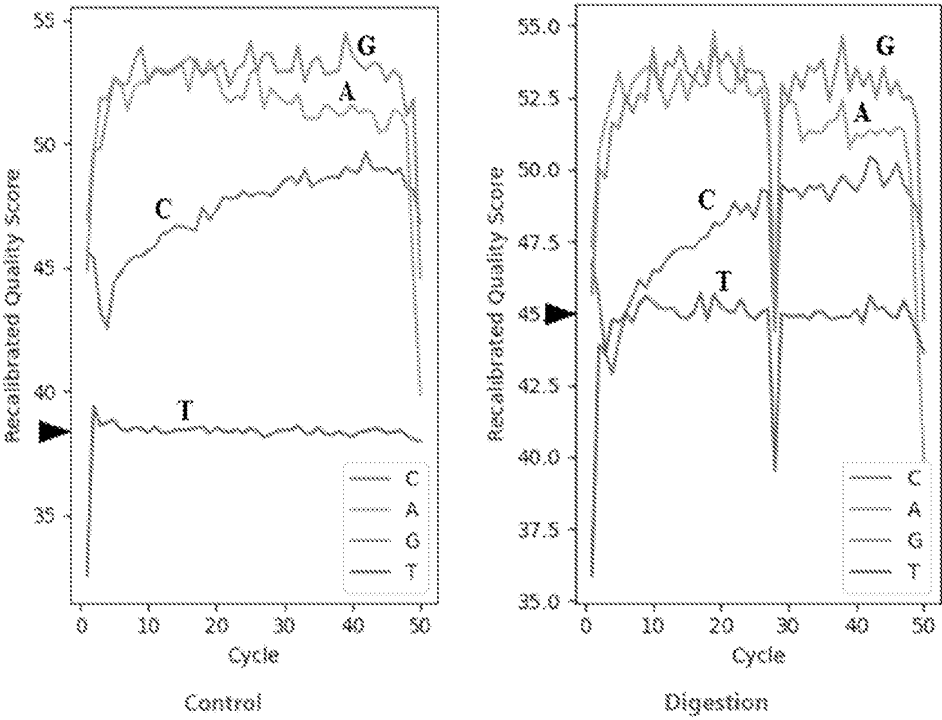


FIG. 23