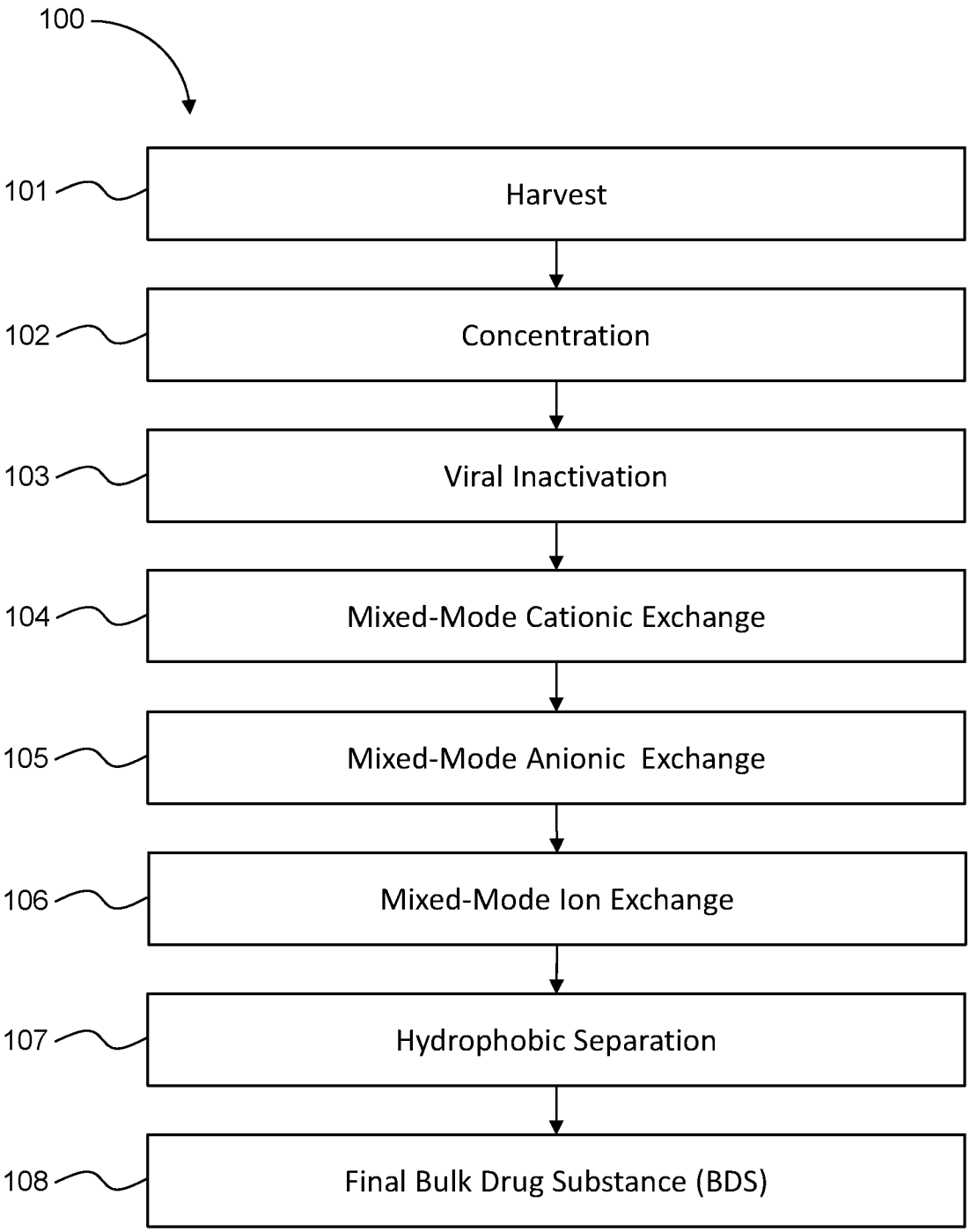

100
101
Harvest
102
Concentration
103
Viral Inactivation
104
Mixed-Mode Cationic Exchange
105
Mixed-Mode Anionic Exchange
106
Mixed-Mode Ion Exchange
107
Hydrophobic Separation
108
Final Bulk Drug Substance (BDS)

FIG. 1

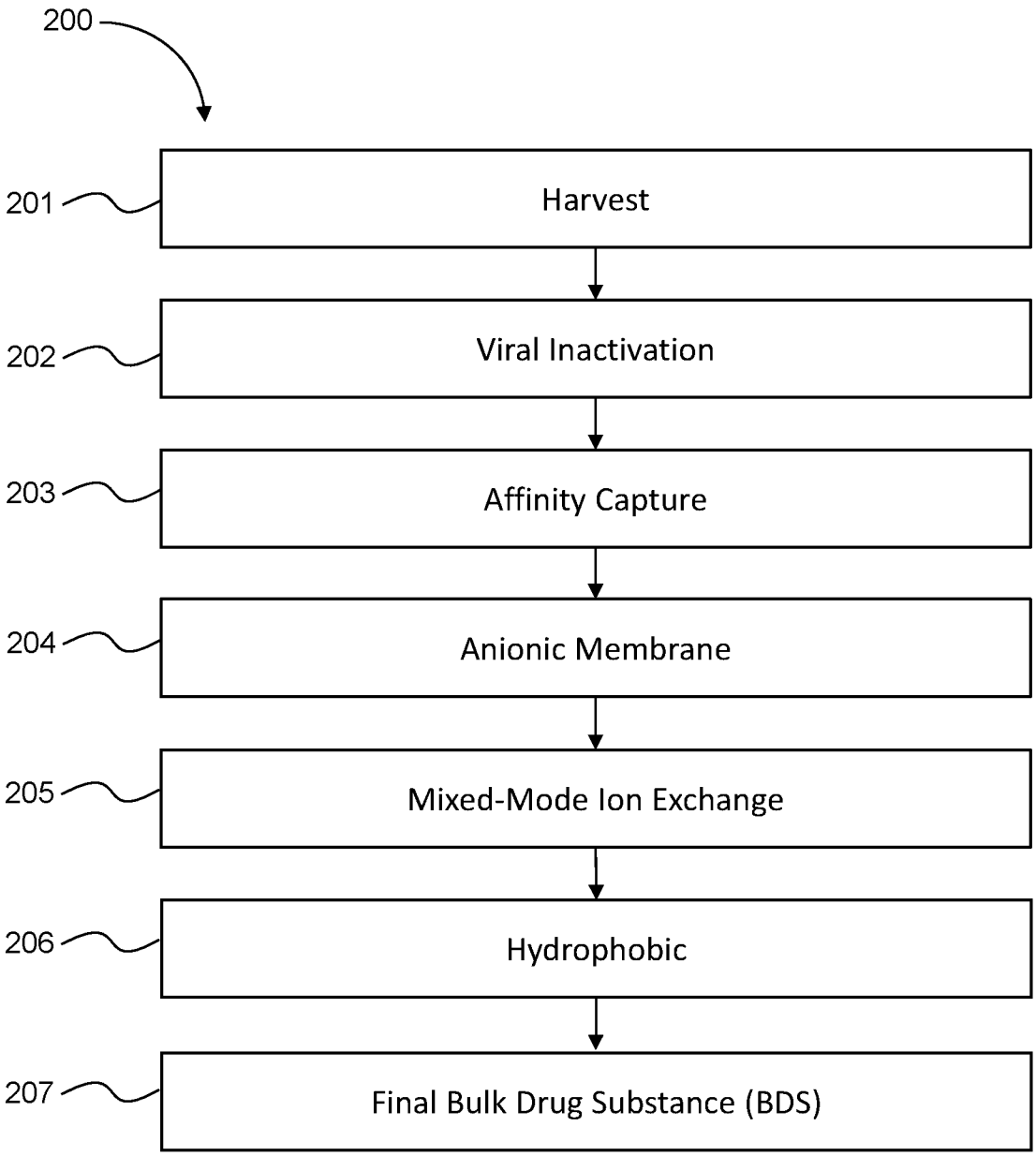

200
201
Harvest
202
Viral Inactivation
203
Affinity Capture
204
Anionic Membrane
205
Mixed-Mode Ion Exchange
206
Hydrophobic
207
Final Bulk Drug Substance (BDS)

FIG. 2

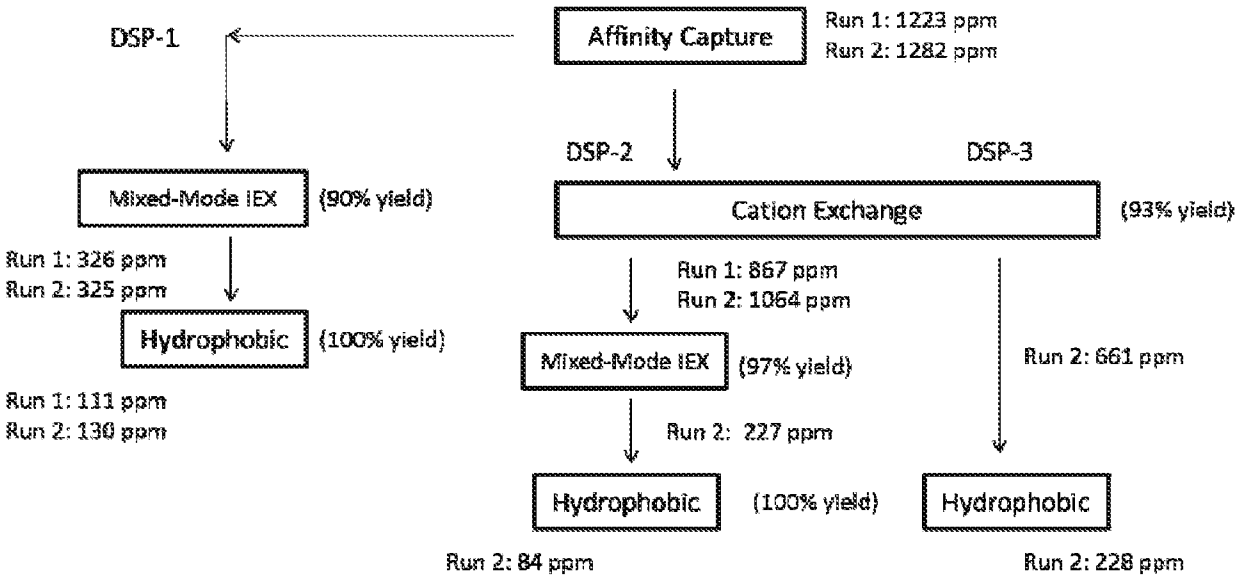

DSP-1
Affinity Capture
Run 1: 1223 ppm
Run 2: 1282 ppm
DSP-2
DSP-3
Mixed-Mode IEX
(90% yield)
Cation Exchange
(93% yield)
Run 1: 326 ppm
Run 2: 325 ppm
Run 1: 867 ppm
Run 2: 1064 ppm
Hydrophobic
(100% yield)
Mixed-Mode IEX
(97% yield)
Run 2: 661 ppm
Run 1: 111 ppm
Run 2: 130 ppm
Run 2: 227 ppm
Hydrophobic
(100% yield)
Hydrophobic
Run 2: 84 ppm
Run 2: 228 ppm

FIG. 3