What is claimed is:

1. A method of separating empty and full capsids in a viral preparation, the method comprising running the viral preparation and a mobile phase through an anion exchange column, wherein the mobile phase is run under conditions comprising a discontinuous elution gradient and at least one isocratic hold incorporated into the gradient.

2. A method of quantitating empty and full capsids in a viral preparation, the method comprising running the viral preparation and a mobile phase through an anion exchange column, wherein the mobile phase is run under conditions comprising a discontinuous elution gradient and at least one isocratic hold incorporated into the gradient.

3. The method of claim 1 or 2, wherein the viral preparation and mobile phase are run on a high-performance liquid chromatography (HPLC) system.

4. The method of any one of the preceding claims, wherein the empty and full capsids are separated by baseline resolution.

5. The method of claim 4, wherein the baseline resolution is greater than 2.0.

6. The method of any one of the preceding claims, wherein the capsids comprise adeno-associated virus (AAV) capsids.

7. The method of any one of the preceding claims, wherein the anion column is a strong anion exchange (SAX) column.

8. The method of claim 7, wherein the SAX column is a quaternary amine (Q-amine) column.

9. The method of any one of the preceding claims, wherein the anion exchange column is a monolith column.

10. The method of any one of the preceding claims, wherein the mobile phase comprises a salt.

11. The method of claim 10, wherein the salt is tetramethylammonium chloride (TMAC) or sodium acetate.

12. The method of claim 10 or 11, wherein the final gradient of the mobile phase comprises 0.5 to 5 M, optionally 1 M, salt.

13. The method of any one of the preceding claims, wherein the at least one isocratic hold is introduced before the mobile phase reaches 50% of the final gradient.

14. The method of any one of the preceding claims, wherein the pH of the mobile phase is about 8 to about 10.

15. The method of claim 14, wherein the pH of the mobile phase is about 9.

16. The method of any one of the preceding claims, wherein the column has a temperature between 0°C and 50°C.

17. The method of claim 16, wherein the column has a temperature between 20°C and 25°C.

18. The method of any one of the preceding claims, wherein the AAV is derived from one or more serotypes, optionally selected from AAV1, AAV2, AAV3, AAV6, AAV8, and AAV9.

19. The method of any one of the preceding claims, wherein the full capsid in the viral preparation comprises a nucleic acid transgene construct between ~~about~~ 20 base pairs and ~~about~~ 9,000 base pairs.

20. A viral preparation that is enriched for empty viral capsids, the preparation being obtained by a method of any one of claims 1-19, ~~optionally~~ wherein no more than 20% of the viral capsids in the preparation are full viral capsids.

21. A viral preparation that is enriched for full viral capsids, the preparation being obtained by a method of any one of claims 1-19, ~~optionally~~ wherein no more than 20% of the viral capsids in the preparation are empty viral capsids