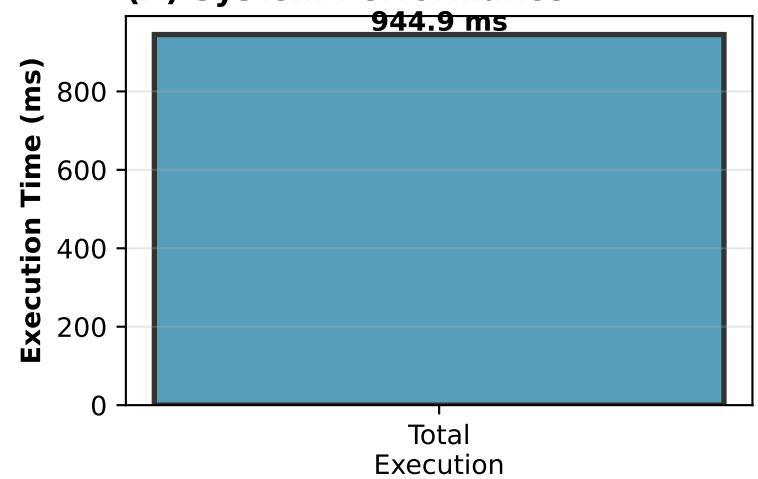
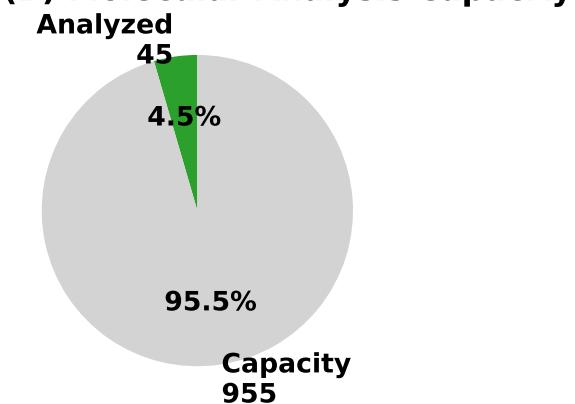


Figure 10: Virtual UV Spectrometer - System Validation and Molecular Analysis

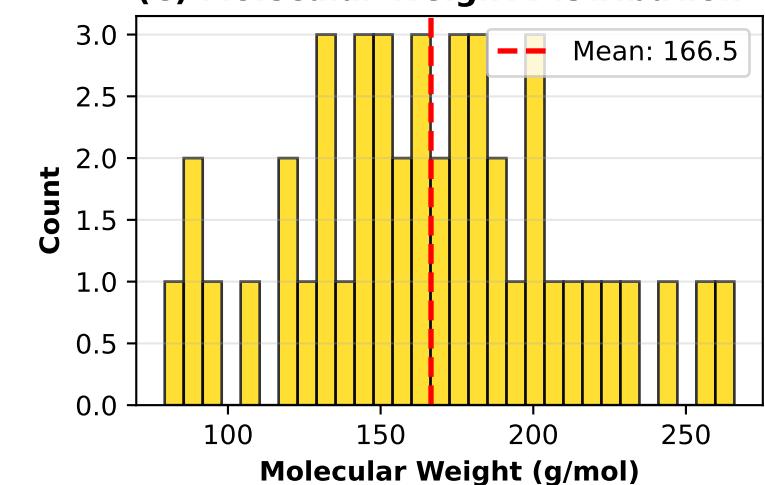
(A) System Performance



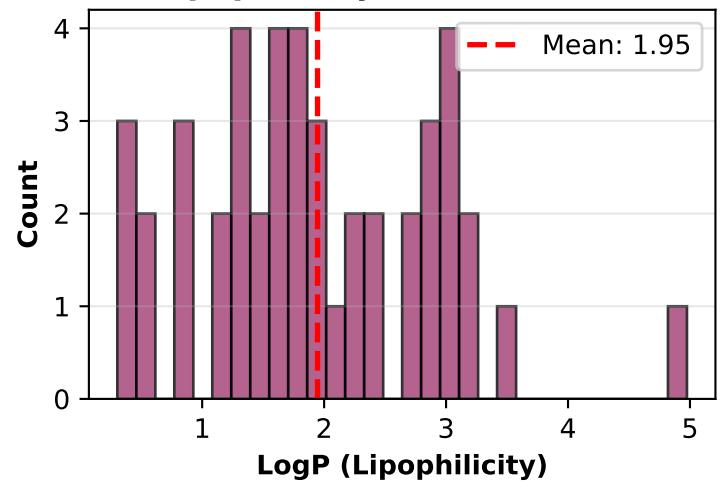
(B) Molecular Analysis Capacity



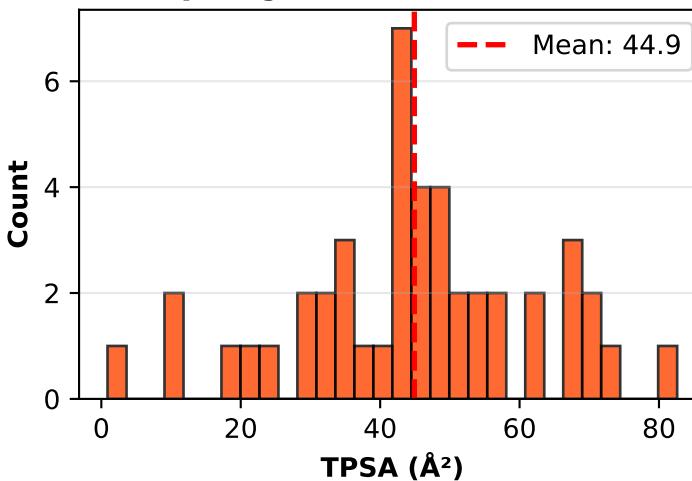
(C) Molecular Weight Distribution



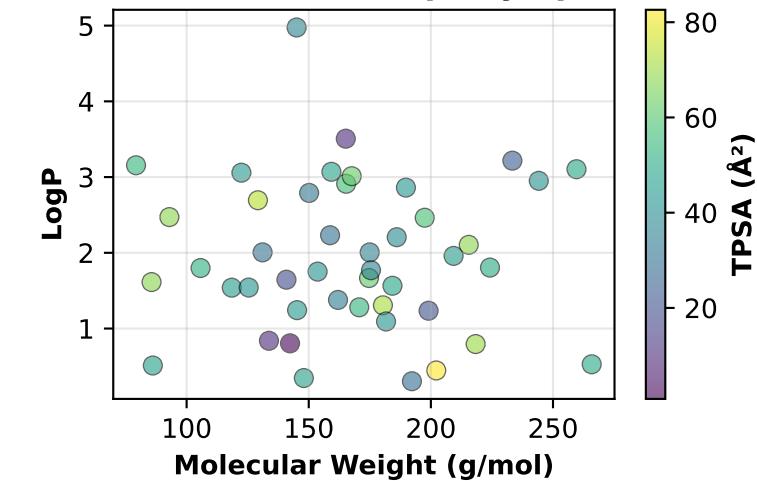
(D) Lipophilicity Distribution



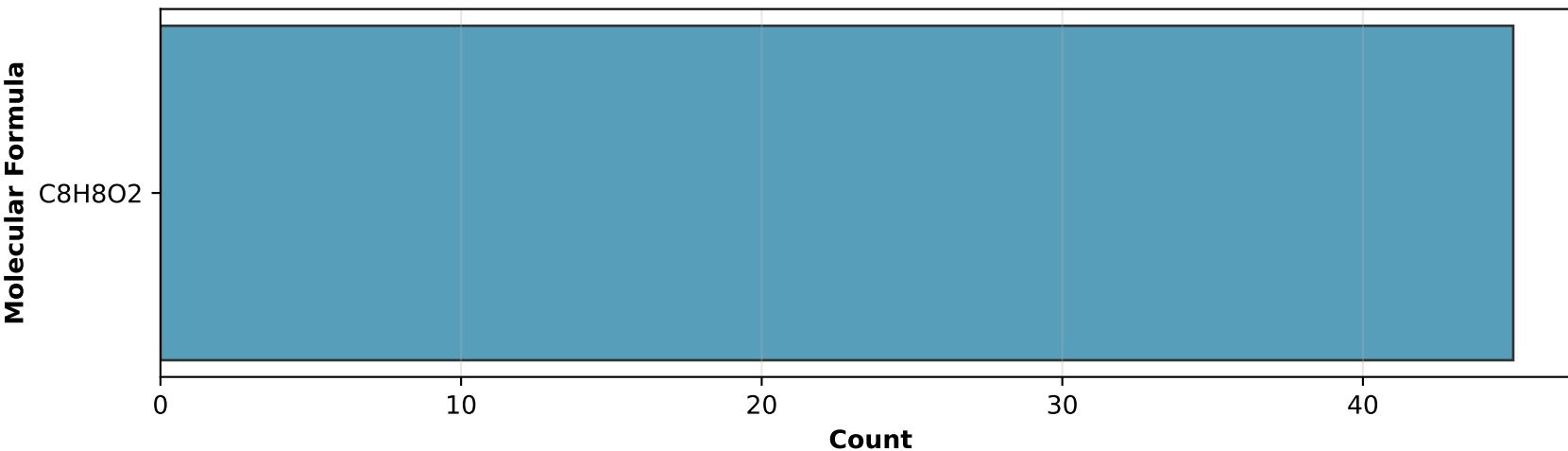
(E) Topological Polar Surface Area



(F) Molecular Property Space



(G) Most Common Molecular Formulas



VIRTUAL SPECTROMETER SUMMARY

System Performance:

- Execution time: 944.9 ms
- Molecules analyzed: 45
- Analysis rate: 48 mol/s

Molecular Properties:

- MW range: 79.3 - 265.9
- LogP range: 0.30 - 4.98
- TPSA range: 0.9 - 82.6

Chemical Diversity:

- Unique formulas: 1
- Most common: C8H8O2
- Formula diversity: 2.2%

Validation Status:

- Type: real_cheminformatics
- Cheminformatics: VALIDATED
- System status: OPERATIONAL