

Table 2: The two datasets used in this study.

^anumber of compounds in the datasets; ^balphabet of potential elements provided to the method for molecular ion and molecular formula identification; ^caverage mass of all compound in Da

| | # ^a | instrument | alphabet ^b | average mass ^c |
|-----------------------|----------------|------------|-----------------------|---------------------------|
| simulated data | 22 | simulated | | 187.6 |
| standard compounds | 20 | | CHNOPS | 170.78 |
| chlorinated compounds | 2 | | CHNOPSCl | 1338.1 |
| measured data | 50 | GC/TOF-MS | | 212.98 |
| standard compounds | 35 | | CHNOPS | 1202.0 |
| chlorinated compounds | 5 | | CHNOPSCl | 153.233 |