## **SUPPORTING INFORMATION**

## The Squeezing of Ion Populations and Peaks in Traveling Wave Ion Mobility Separations and Structures for Lossless Ion Manipulations using Compression Ratio Ion Mobility Programming (CRIMP)

Sandilya V. B. Garimella<sup>#</sup>, Ahmed M. Hamid<sup>#</sup>, Liulin Deng<sup>#</sup>, Yehia M. Ibrahim, Ian K. Webb, Erin S. Baker, Spencer A. Prost, Randolph V. Norheim, Gordon A. Anderson\* and Richard D. Smith<sup>†</sup>

Biological Sciences Division and Environmental Molecular Sciences Laboratory,
Pacific Northwest National Laboratory, Richland, WA

<sup>†</sup>Corresponding author: Richard D. Smith

Address: 902 Battelle Blvd.

P.O. Box 999, MSIN K8-98

Richland, WA 99352

Phone: 509-371-6219

Fax: 509-371-6564

Email: rds@pnnl.gov

# These authors contributed equally

\* Present address: GAA Custom Engineering, LLC. Benton City, WA 99320

Figure S1



Figure S1. CRIMP timing diagram for the voltage potentials applied to the electrodes at the TT/ST interface. Yellow line shows the trigger to enable compression profiles. Potentials applied on the second electrodes (green line), third (blue line) and fifth (pink line) from the TT/ST interface are shown.