

## Analysis of high molecular weight polystyrene standards by using JMS-S3000 "SpiralTOF™" with Linear TOF option.

Product used : Mass Spectrometry (MS)

An example of the analysis of low molecular weight Polystyrene (PS) by using JMS-S3000 SpiralTOF™ MALDI-TOFMS was already shown in MS Tips No.163. This time, high molecular weight polystyrene standards (TSKgel Standard Polystyrene F-4 (Mw = 3.72x10<sup>4</sup>), F-10 (Mw = 9.89x10<sup>4</sup>), and F-20 (Mw = 1.89x10<sup>5</sup>), Tosoh Corporation) were analyzed by using JMS-S3000 SpiralTOF™ with Linear TOF option (Fig. 1). For F-4, peaks were observed at every 104 u, which is the repeating unit of PS. For both F-10 and F-20, expected distributions around their respective average molecular weights were obtained (Fig. 2). Wide applications of the Linear TOF option for the analyses of high molecular weight synthetic polymers are expected.

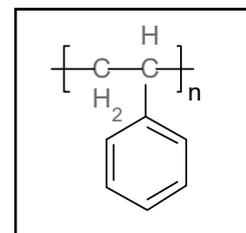


Fig.1 Repeating unit (C<sub>8</sub>H<sub>8</sub>=104.0626)

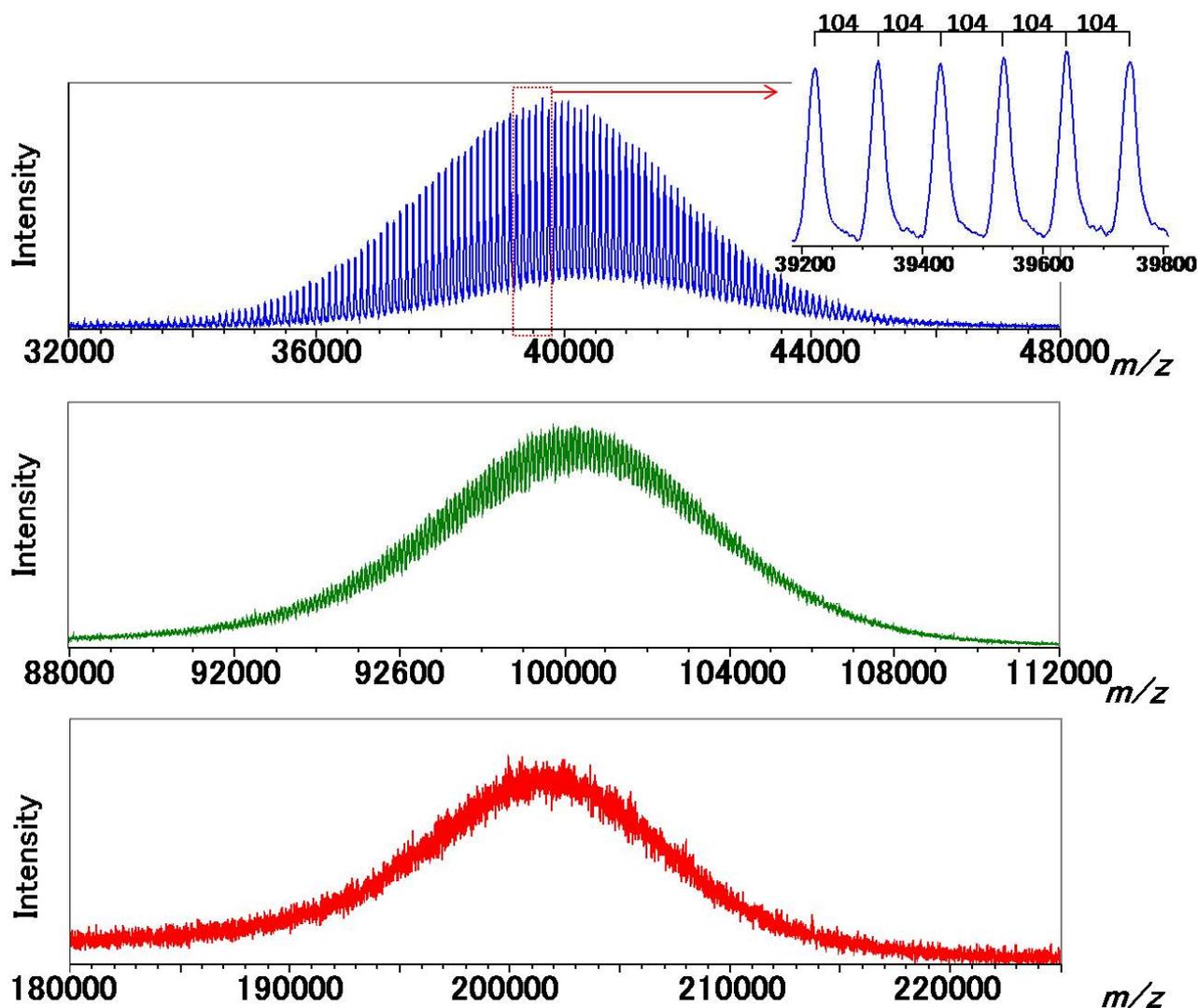


Fig.2 Mass spectra of PS using LinearTOF option.

