

## **Thread-based isoelectric focusing coupled with desorption electrospray ionisation mass spectrometry**

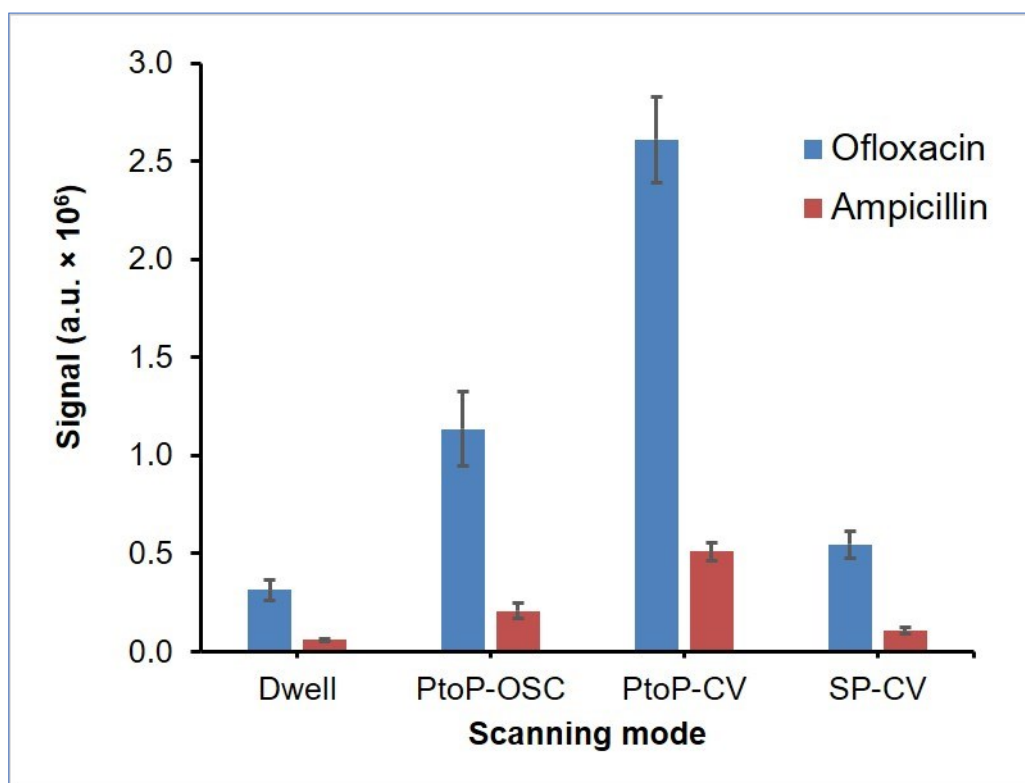
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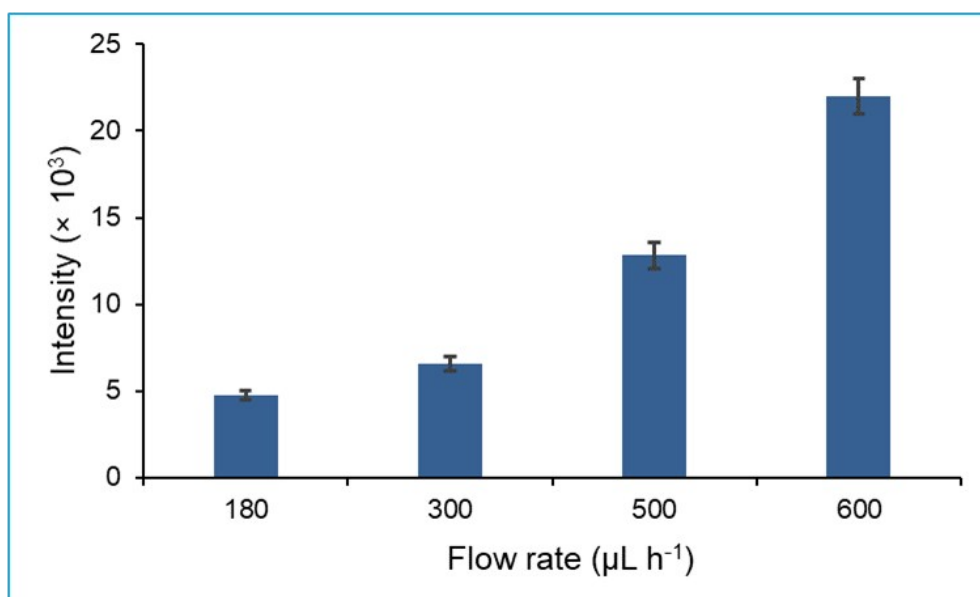
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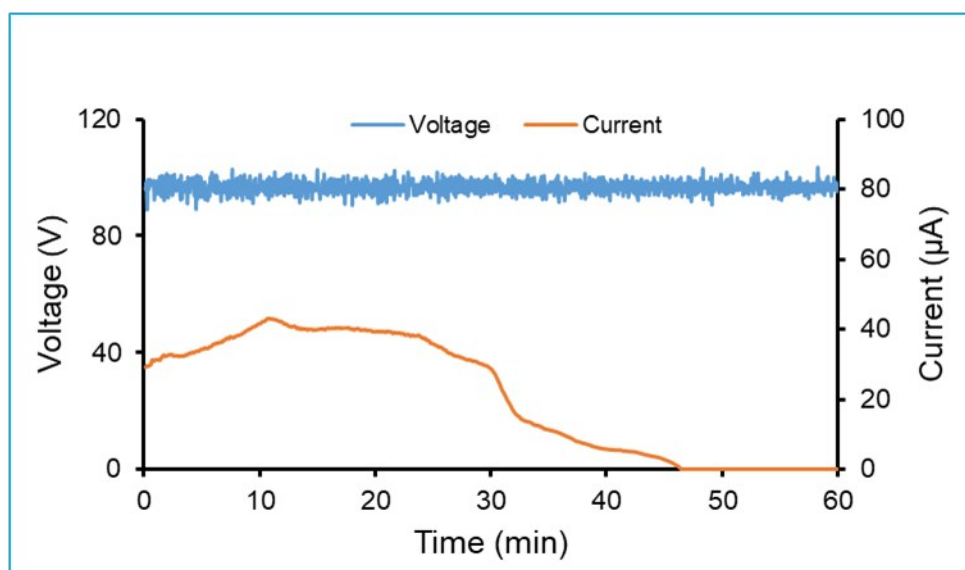
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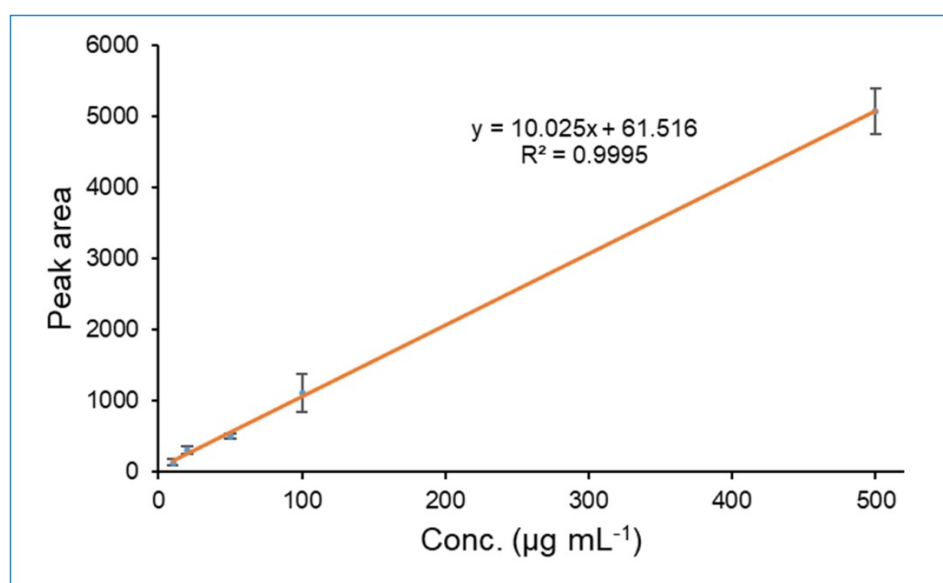
**Fig. S1.** DESI-MS signal intensities of 10  $\mu\text{g mL}^{-1}$  ofloxacin and ampicillin in different scanning modes.



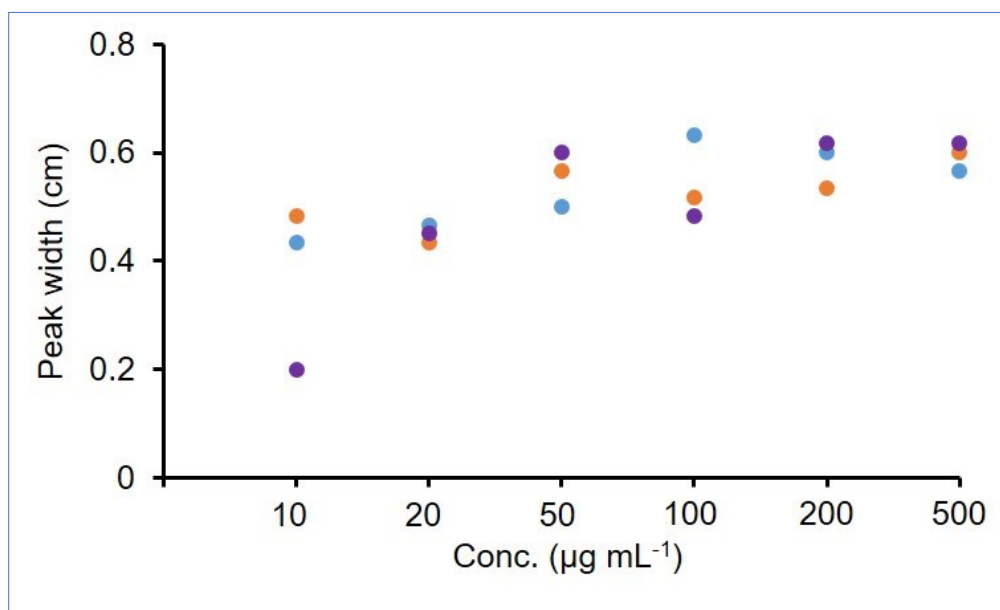
**Fig. S2.** DESI-MS signal intensities of insulin (50  $\mu\text{g mL}^{-1}$ ) with different spray solvent delivering flow rates.



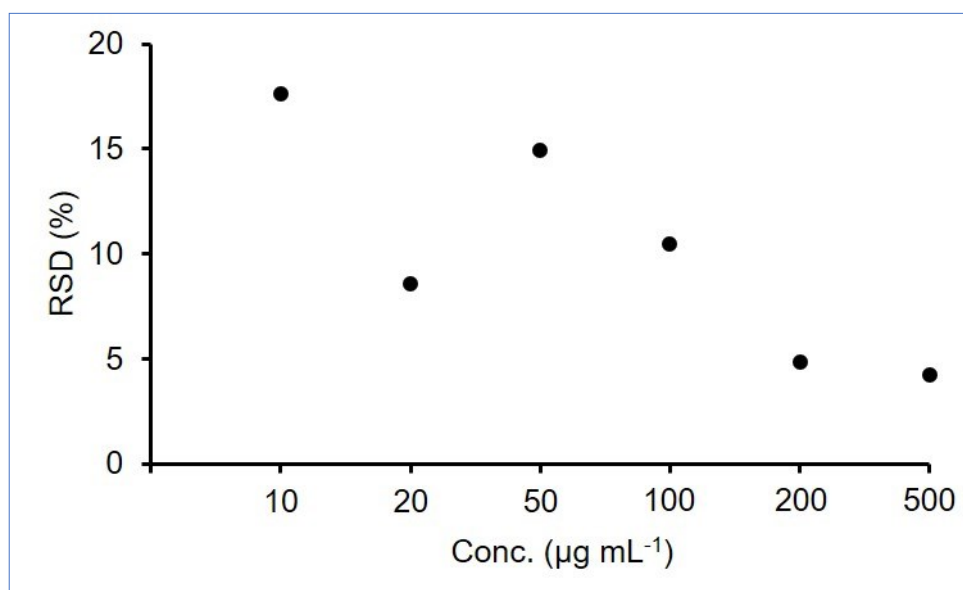
**Fig. S3.** Voltage and current changes versus the TB-IEF analysis time. The voltage was kept constant at 100 V.



**Fig. S4.** The calibration curve of insulin upon the nylon thread after the TB-IEF process.



**Fig S5.** Peak width of insulin upon the thread versus concentration. The peak widths were obtained by the DESI-MS scanning along the thread after the TB-IEF process.



**Fig S6.** RSDs of the focused insulin samples upon the nylon thread using the TB-IEF method. The data were calculated based on the results presented in Fig. S3.