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Resumo	Mass spectrometry has been increasingly explored in intraoperative studies as a potential technology to help guide surgical decision making. Yet, intraoperative experiments using high-performance mass spectrometry instrumentation present a unique set of operational challenges. For example, standard operating rooms are often not equipped with the electrical requirements to power a commercial mass spectrometer and are not designed to accommodate their permanent installation. These obstacles can impact progress and patient enrollment in intraoperative clinical studies because implementation of MS instrumentation becomes limited to specific operating rooms that have the required electrical connections and space. To expand our intraoperative clinical studies using the MasSpec Pen technology, we explored the feasibility of transporting and acquiring data on Orbitrap mass spectrometers operating on battery power in hospital buildings. We evaluated the effect of instrument movement including acceleration and rotational speeds on signal stability and mass accuracy by acquiring data using direct infusion electrospray ionization. Data were acquired while rolling the systems in/out of operating rooms and while descending/ascending a freight elevator. Despite these movements and operating the instrument on battery power, the relative standard deviation of the total ion current was <5% and the magnitude of the mass error relative to the internal calibrant never exceeded 5.06 ppm. We further evaluated the feasibility of performing intraoperative MasSpec Pen analysis while operating the Orbitrap mass spectrometer on battery power during an ovarian cancer surgery. We observed that the rich and tissue-specific molecular profile commonly detected from ovarian tissues was conserved when running on battery power. Together, these results demonstrate that Orbitrap mass spectrometers can be operated and acquire data on battery power while in motion and in rotation without losses in signal stability or mass accuracy. Furthermore, Orbitrap

	mass spectrometers can be used in conjunction to the MasSpec Pen while on battery power for intraoperative tissue analysis.
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