Supporting Information

Low Energy Electron Induced Decomposition of Gas Phase Trimethyl (Methylcyclopentadienyl) Platinum(IV) -a precursor for Focused Electron Beam Induced Deposition (FEBID)

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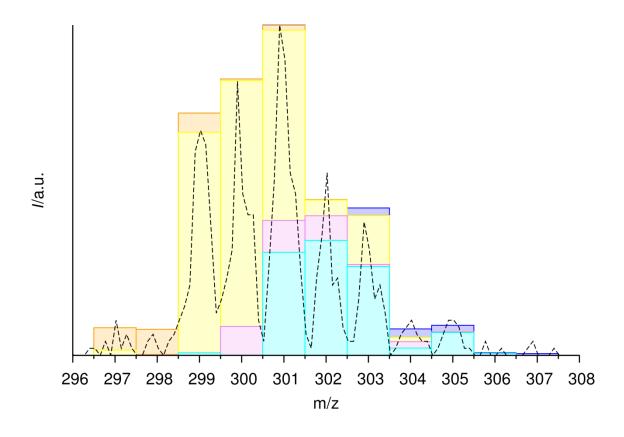


Fig. S1 Example of deconvoluted mass peaks due to overlapping Pt isotope contributions with different numbers of hydrogen atoms; C_8H_9Pt (m/z 300, 58%, yellow), $C_8H_{11}Pt$ (m/z main peak 302, 27%, cyan), $C_8H_{10}Pt$ (m/z 301, 7%, purple), C_8H_7Pt (m/z 298, 6%, orange) and $C_8H_{13}Pt$ (m/z 304, 2% blue). For clarity the experimental mass spectrum is displayed as dashed line (not to scale). The error is estimated as the difference between the relative area of the integrated experimental peaks and the simulated peaks, and is for the more intense peaks less than 10%. Mass peaks with lower intensity are subject to a lower signal/noise ratio and thus relative errors are somewhat larger for those. As the contribution to the fitted total signal is proportional to the peak intensity, the error contributions from the low intensity peaks weigh less than the contributions from the main peaks and the overall accuracy of this procedure is estimated to be about $\pm 5\%$.

Table S1 Overview of contributing fragments to observed mass peaks due to overlapping Pt isotope contributions with different numbers of hydrogen.

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Peak group	Contributing fragments	m/z	Contribution/%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	301	$C_8H_{13}Pt$	304	2
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$C_8H_{11}Pt$	302	27
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$C_8H_{10}Pt$	301	7
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_8H_9Pt	300	58
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		C_8H_7Pt	298	6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	288	$C_7H_{10}Pt$	289	30
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_7H_9Pt	288	50
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_7H_7Pt	286	10
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_7H_6Pt	285	6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		C_7H_5Pt	284	4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	272	C ₆ H ₇ Pt	274	8
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_6H_6Pt	273	40
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_6H_5Pt	272	31
245 C ₄ H ₄ Pt 247 13 C ₄ H ₃ Pt 246 47 C ₄ H ₂ Pt 245 25 C ₄ HPt 244 15 233 C ₃ H ₆ Pt 237 3 C ₃ H ₅ Pt 236 3 C ₃ H ₃ Pt 234 39 C ₃ H ₂ Pt 233 33 C ₃ HPt 232 22 221 C ₂ H ₅ Pt 224 24 C ₂ H ₃ Pt 222 46 C ₂ H ₂ Pt 221 25 C ₂ HPt 220 5 209 CH ₃ Pt 210 17 CH ₂ Pt 209 44 CHPt 208 31		C_6H_4Pt	271	15
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		C_6H_3Pt	270	6
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	245	C ₄ H ₄ Pt	247	13
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_4H_3Pt	246	47
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		C_4H_2Pt	245	25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		C_4HPt	244	15
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	233	C ₃ H ₆ Pt	237	3
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_3H_5Pt	236	3
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		C_3H_3Pt	234	39
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		C_3H_2Pt	233	33
$\begin{array}{ccccc} & C_2H_3Pt & 222 & 46 \\ & C_2H_2Pt & 221 & 25 \\ & & C_2HPt & 220 & 5 \\ \hline \\ 209 & CH_3Pt & 210 & 17 \\ & CH_2Pt & 209 & 44 \\ & CHPt & 208 & 31 \\ \end{array}$		C_3HPt	232	22
$\begin{array}{cccc} C_2H_2Pt & 221 & 25 \\ C_2HPt & 220 & 5 \\ \hline 209 & CH_3Pt & 210 & 17 \\ CH_2Pt & 209 & 44 \\ CHPt & 208 & 31 \\ \hline \end{array}$	221	C ₂ H ₅ Pt	224	24
C ₂ HPt 220 5 209 CH ₃ Pt 210 17 CH ₂ Pt 209 44 CHPt 208 31		C_2H_3Pt	222	46
209 CH ₃ Pt 210 17 CH ₂ Pt 209 44 CHPt 208 31		C_2H_2Pt	221	25
CH ₂ Pt 209 44 CHPt 208 31		C_2HPt	220	5
CHPt 208 31	209	CH ₃ Pt	210	17
		CH ₂ Pt	209	44
CPt 207 8		CHPt	208	31
		CPt	207	8