ESI+ Common Background Ions

m/z		Ion	Compound	Source of Unknown
33		$(M+H)^+$	methanol	
42		$(M+H)^+$	acetonitrile	
59		$(M+NH_4)^+$	acetonitrile	
64		$(M+Na)^+$	acetonitrile	
65		$(2M+H)^+$	methanol	
74		$(M+H)^+$	dimethyl formamide	
79		$(M+H)^+$	DMSO	
83		$(2M+H)^+$	Acetonitrile	
85		$(M+H)^+$	d6-DMSO	
88		$(M+Formic\ Acid+H)^+$	acetonitrile	
101		$(M+Na)^+$	DMSO	
102		$(M+H)^+$	triethylamine (TEA)	
104/106		$(M+Cu)^+$	acetonitrile	
105		$(2M+Na)^+$	acetonitrile	
115		$(M+dimethyl\ formamide+H)^+$	acetonitrile	
120		$(M+Na+CH_3CN)^+$	DMSO	
122		$(M+H)^+$	tris, tris(hydroxymethyl)aminomethane	
123		$(M+H)^+$	dimethylaminopyridine (DMAP)	
130		$(M+H)^+$	diisopropylethyl amine (DIPEA)	
137		(M+CH3CN+NH4)+	DMSO	
144		$(M+H)^+$	tripropylamine (TPA)	
145/147		$(2M+Cu)^+$	acetonitrile	
146		$(3M+Na)^+$	acetonitrile	
149		$(M+H)^+$	phthalic anhydride	
150		$(M+H)^+$	phenyldiethylamine	
153		$(M+H)^+$	1,8-diazabicyclo[5.4.0]undec-7-ene (DBU)	
157		$(2M+H)^+$	DMSO	
159		$(M+Na)^+$	sodium trifluoroacetate	
163			dimethyl phthalate	
167			dioctyl phthalate	
169		$(2M+H)^+$	d6-DMSO	
171		$(M+Na)^+$	phthalic anhydride	
179		$(2M+Na)^+$	DMSO	
186		$(M+H)^+$	tributylamine	
195		$(M+H)^+$	dimethyl phthalate	
214		$(M+H)^+$	n-butyl benzenesulfonamide (plastisizer)	
225		$(M+H)^+$	dicyclohexyl urea (DCU)	
231		(M+NH3)+	n-butyl benzenesulfonamide (plastisizer)	
236		$(M+Na)^+$	n-butyl benzenesulfonamide (plastisizer)	
239/241		$[(M.HCl)2\text{-}Cl]^+$	triethylamine	
242		M^+	tetrabutylammonium $(C4H9)4N^+$	

ESI+ Common Background Ions

m/z		Ion	Compound	Source of Unknown
243		M^+	trityl cation	
257		$(3M+H)^+$	DMSO	
267		(M+H)+	tributylphosphate	
273		M^+	monomethoxytrityl cation (MMT)	
279		M^+	triphenylphosphine oxide	
279		M^+	dibutylphthalate (plasticiser)	
282		$(M+H)^+$	oleamide	slip agent in polyethylene films
284		$(M+H)^+$	stearamide	slip agent in polyethylene films
288		$(M+H)^+$	n,n-bis(2-hydroxyethyl) dodecanamide	anti-static agent
301		$(M+Na)^+$	dibutylphthalate (plasticiser)	
303		$(M+Na)^+$	oleamide	slip agent in polyethylene films
317		$(M+K)^+$	dibutylphthalate (plasticiser)	
336		(M+H)+	tributyl tin formate	
338		$(M+H)^+$	erucamide	slip agent in polyethylene films
355				siloxane from silica column
360		$(M+Na)^+$	erucamide	slip agent in polyethylene films
371		$(M+H)^+$	decamethylcyclopentasiloxane	
388			decamethylcyclopentasiloxane	
391		$(M+H)^+$	diisooctyl phthalate (plasticiser)	
413		$(M+Na)^+$	diisooctyl phthalate (plasticiser)	
425		$(M+Na)^+$	unidentified contaminant (plasticiser)	
429		$(M+K)^+$	diisooctyl phthalate (plasticiser)	seen w/ silica capillary NanoSprayer
445		(M+H)+	dodecamethylcyclohexasiloxane	seen w/ silica capillary NanoSprayer
449		$(2M+H)^+$	dicyclohexyl urea (DCU)	
454		$(M+Na+CH_3CN)^+$	diisooctyl phthalate (plasticiser)	also observed w/ high conc. of formic acid
462			dodecamethylcyclohexasiloxane	
503				seen w/ silica capillary NanoSprayer
519		$(M+H)^+$	tetradecamethylcycloheptasiloxane	seen w/ silica capillary NanoSprayer
522				Derived from rubber tip from disposable syringe plunger
531		$(M+H)^+$		seen w/ Nunc polypropylene tubes
536				seen w/ silica capillary NanoSprayer
538		(acetate)n+(Fe)n+		observed w/ high conc. of acetic acid
550				Derived from rubber tip from disposable syringe plunger
553		$(M+Na)^+$		seen w/ Nunc polypropylene tubes
555		(acetate)n+(Fe)n+		observed w/ high conc. of acetic acid
569		$(M+K)^+$		seen w/ Nunc polypropylene tubes
587		$(M+H)^+$		seen w/ Vanguard polypropylene tubes
593		$(M+H)^+$	hexadecamethylcyclooctasiloxane	
609		$(M+Na)^+$		seen w/ Vanguard polypropylene tubes
610				seen w/ silica capillary NanoSprayer

ESI+ Common Background Ions

m/z		Ion	Compound	Source of Unknown
625		$(M+K)^+$		seen w/ Vanguard polypropylene tubes
638				seen w/ silica capillary NanoSprayer
667		$(M+H)^+$	octadecamethylcyclononasiloxane	
675				seen w/ new PEEK tubing
679		$(M+H)^+$		from purified water and solvent filters
684				seen w/ silica capillary NanoSprayer
696		$(M+NH4)^+$		from purified water and solvent filters
701		$(M+Na)^+$		from purified water and solvent filters
741		$(M+H)^+$	eicosamethylcyclodecasiloxane	
786		$(M+Ti)^+$	titanium adduct	
798		$(2M+NH_4)^+$	diisooctyl phthalate (plasticiser)	
803		$(2M+Na)^+$	diisooctyl phthalate (plasticiser)	

ESI- Common Background Ions

m/z		Ion	Compound
26		CN^-	acetonitrile
45		$(HCOO)^-$	formate
59		$(CH3CO2)^-$	acetate
69		$(CF3CO2Na)^-$	sodium trifluoracetate, TFA
79		$PO3^-$	phosphate
80		$SO3^-$	sulfate
95		$CH3SO3^-$	methanesulfonate
97		$HSO4^-$	
97		$H2PO4^-$	
113			sodium trifluoracetate, TFA
127		$(CF3CO2Na)^-$	sodium trifluoracetate, TFA
227		$(CF3CO2Na)^-$	sodium trifluoracetate, TFA
249		$(CF3CO2Na)^-$	sodium trifluoracetate, TFA

ESI+ Clusters

m/z			Compound
18			water
32			methanol
41			acetonitrile
44			PEG, HO-(CH2CH2On-H)+
50			perfluoro, CF2
53			NH4Cl
58			PPG
58			NaCl
63			NH4Cl salts
68			NaFA salts

ESI+ Clusters

m/z			Compound
72			Replacement of OH by OSi(CH3)3
74			KCl
74			Si(CH3)2O (from rubber)
77			NH4Ac salts
78			DMSO
82			NaAc
136			NaTFA
162			Polysaccharides

ESI+ Common Adducts

m/z		Ion
(M+1)		$(M+H)^+$
(M+18)		$(M+NH_4)^+$
(M+23)		$(M+Na)^+$
(M+39)		$(M+K)^+$
(M+33)		$(M+CH3OH+H)^+$
(M+42)		$(M+ACN+H)^+$
(M+64)		$(M+ACN+Na)^+$
(M+79)		$(M+DMSO+H)^+$
(M+83)		$(M+2ACN+H)^+$

ESI+ Common Ion Series

m/z		Compound
79, 157, 235		(nDMSO+H)+
101, 179, 257		(nDMSO+Na)+
231, 522, 550		plastisizer
267, 289, 330		tributylphosphate
371, 388, 445, 462		cyclosiloxane
355, 429, 503, 593, 667, 741, 815		plastisizer