Average Mass Differences Relative to the Full Length Product for Common Impurities

Possible problem		Mass difference (Dalton)	
PS backbone			96.05
PO backbone			79.98
PS-PO conversion			-16.07
Depurination of A base			-117.12
			-135.13
Depurination of G base			-133.11
			-151.13
Deamination			0.98
Reaction with methylamine			14.03
+Acetyl			42.04
+Cyanoethyl			53.06
+isobutyryl (G)			70.08
+Chloral (backbone)			147.39
+tert-butyl dimethylsilyl			114.26
+benzoyl			104.11
Modified C			80.08
+DMT			302.37
Depyrimidation			-52.03
Depyrimidation			-94.07
-dA (PO)	**-313.21**	**-dA (PS)**	**-329.28**
-dG (PO)	**-329.21**	**-dG (PS)**	**-345.28**
-dC (PO)	**-289.18**	**-dC (PS)**	**-305.25**
-5Me-dC (PO)	**-303.21**	**-5Me-dC (PS)**	**-319.28**
-dT (PO)	**-304.19**	**-dT (PS)**	**-320.26**
-dU (PO)	**-290.17**	**-dU (PS)**	**-306.24**
-rA (PO)	**-329.21**	**-rA (PS)**	**-345.28**
-rG (PO)	**-345.21**	**-rG (PS)**	**-361.28**
-rC (PO)	**-305.18**	**-rC (PS)**	**-321.25**
-5Me-rC (PO)	**-319.21**	**-5Me-rC (PS)**	**-335.28**
-rU (PO)	**-306.17**	**-rU (PS)**	**-322.24**
-rT (PO)	**-320.19**	**-rT (PS)**	**-336.26**
-mA (PO)	-343.23	-mA (PS)	-359.3
-mG (PO)	-359.23	-mG (PS)	-375.3
-mC (PO)	-319.21	-mC (PS)	-335.28

-5Me-mC (PO)	-333.24	-5Me-mC (PS)	-349.31
-mU (PO)	-320.19	-mU (PS)	-336.26
-mT (PO)	-334.22	-mT (PS)	-350.29
-fA (PO)	-331.2	-fA (PS)	-347.27
-fG (PO)	-347.2	-fG (PS)	-363.27
-fC (PO)	-307.17	-fC (PS)	-323.24
-5Me-fC (PO)	-321.2	-5Me-fC (PS)	-337.27
-fU (PO)	-308.16	-fU (PS)	-324.23
-fT (PO)	-322.18	-fT (PS)	-338.25
-LNA-A (PO)	**-341.22**	**-LNA-A (PS)**	**-357.29**
-LNA-G (PO)	**-357.22**	**-LNA-G (PS)**	**-373.29**
-LNA-C (PO)	**-317.19**	**-LNA-C (PS)**	**-333.26**
-LNA-U (PO)	**-318.18**	**-LNA-U (PS)**	**-334.25**
-5Me-LNA-C (PO)	**-331.22**	**-5Me-LNA-C (PS)**	**-347.29**
-LNA-T (PO)	**-332.20**	**-LNA-T (PS)**	**-348.27**
-dI (PO)	-314.19	-dI (PS)	-330.26
-rI (PO)	-330.19	-rI (PS)	-346.26
-mI (PO)	-344.22	-mI (PS)	-360.29
-cET-A (PO)	**-355.24**	**-cET-A (PS)**	**-371.31**
-cET-G (PO)	**-371.26**	**-cET-G (PS)**	**-387.33**
-cET-C (PO)	**-331.22**	**-cET-C (PS)**	**-347.29**
-5Me-cET-C (PO)	**-345.25**	**-5Me-cET-C (PS)**	**-361.32**
-cET-U (PO)	**-332.2**	**-cET-U (PS)**	**-348.27**
-UNA-A (PO)	-331.22	-UNA-A (PS)	-347.29
-UNA-G (PO)	-347.22	-UNA-G (PS)	-363.29
-UNA-C (PO)	-307.20	-UNA-C (PS)	-323.27
-UNA-U (PO)	-308.18	-UNA-U (PS)	-324.25
-GNA-A (PO)	-271.17	-GNA-A (PS)	-287.24
-GNA-G (PO)	-287.17	-GNA-G (PS)	-303.24
-GNA-C (PO)	-247.15	-GNA-C (PS)	-263.22
-GNA-T (PO)	-262.16	-GNA-T (PS)	-278.23
-TNA-A (PO)	**-299.18**	**-TNA-A (PS)**	**-315.25**
-TNA-G (PO)	**-315.18**	**-TNA-G (PS)**	**-331.25**
-TNA-C (PO)	**-275.16**	**-TNA-C (PS)**	**-291.23**
-TNA-T (PO)	**-290.17**	**-TNA-T (PS)**	**-306.24**
-MOE-A (PO)	-387.29	-MOE-A (PS)	-403.36
-MOE-G (PO)	-403.28	-MOE-G (PS)	-419.35

-5Me-MOE-C (PO)	-377.29	-5Me-MOE-C (PS)	-393.36
-MOE-T (PO)	-378.27	-MOE-T (PS)	-394.34
-Amino C6 (PO)	-179.16	-Amino C6 (PS)	-195.23
-Sp9 (PO)	-212.14	-Spacer 9 (PS)	-228.21
-Sp 18 (PO)	-344.30	-Sp 18 (PS)	-360.37
-SpC3 (PO)	-138.06	-SpC3 (PS)	-154.13
-SpC6 (PO)	-180.14	-SpC6 (PS)	-196.21
-SpC9 (PO)	-222.22	-SpC9 (PS)	-238.29
-SpC12 (PO)	-264.3	-SpC12 (PS)	-280.37
-VPmU (PO)	**-396.18**	**-VPmU (PS)**	**-412.25**
-VPmA (PO)	**-419.23**	**-VPmA (PS)**	**-435.3**
-VPmG (PO)	**-435.22**	**-VPmG (PS)**	**-451.29**
-VPmC (PO)	**-395.2**	**-VPmC (PS)**	**-411.27**