# Supporting Information for:

## Origin of the Sphere-to-Rod Transition in Cationic Micelles with Aromatic Counterions: Specific Ion Hydration in the Interfacial Region Matters

### Tables S1 to S6 and Figures S1 and S2

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**Table S1**. HPLC Peak Areas, Observed and Normalized Yields for Dediazoniation of 5 x $10^{-4}$ M 1-$ArN_2^+$ in Aqueous Solutions of Na3,5OBz at 40°C.[a]

| [Na3,5 OBz] | [$H_2O$] | Peak Area ($10^6$µV•s)[c] | | | Observed Yields (%)[d] | | | Normalized Yields (%)[e] | | $S_w^{OBz}$ [f] |
|---|---|---|---|---|---|---|---|---|---|---|
| M | M[b] | 1-ArOH | 1-Ar3,5BzOH | 1-Ar3,5OBz | 1-ArOH | 1-Ar3,5OBz | Total | 1-ArOH | 1-Ar3,5OBz | |
| 0 | 55.5 | 1.984 | 0 | 0 | 95.6 | 0 | 95.6 | 100 | 0 | |
| 0.1 | 55.3 | 1.921 | 0.112 | 0.030 | 92.6 | 3.61 | 96.2 | 96.2 | 3.76 | 21.6 |
| 0.3 | 54.9 | 1.816 | 0.262 | 0.078 | 87.5 | 8.67 | 96.2 | 91.0 | 9.01 | 18.1 |
| 0.5 | 52.8 | 1.755 | 0.421 | 0.132 | 84.6 | 14.0 | 98.6 | 85.8 | 14.2 | 17.5 |
| 0.7 | 52.3 | 1.660 | 0.492 | 0.169 | 80.0 | 16.8 | 96.8 | 82.6 | 17.4 | 15.7 |
| 1.0 | 51.3 | 1.556 | 0.655 | 0.242 | 75.0 | 22.8 | 97.8 | 76.7 | 23.3 | 15.6 |
| 1.5 | 47.0 | 1.369 | 0.896 | 0.356 | 66.0 | 31.8 | 97.8 | 67.5 | 32.5 | 15.1 |
| 2.0 | 44.6 | 1.254 | 1.064 | 0.449 | 60.4 | 38.4 | 98.8 | 61.1 | 38.9 | 14.2 |
| 2.5 | 38.0 | 1.060 | 1.265 | 0.562 | 51.1 | 46.4 | 97.5 | 52.4 | 47.6 | 13.8 |
| 3.0 | 33.1 | 0.906 | 1.429 | 0.666 | 43.7 | 53.2 | 96.9 | 45.1 | 54.9 | 13.5 |

a. Reaction time around 8 hours. 1-$ArN_2^+$ added as 10 µL 0.05 M 1-$ArN_2BF_4$ in MeOH to 1 mL of aqueous Na3,5OBz to initiate reaction.
b. Calculated from the measured weight of $H_2O$ in each solution.
c. Peak areas average values of triplicate 20 µl injections.
d. Observed yield: % 1-ArX = 100 [1-ArX]/ $5 \times 10^{-4}$ (X = OH, OBz). There are two dediazoniation products from reaction with $3,5OBz^-$: 1-Ar3,5BzOH and 1-Ar3,5OBz. The normalized yield from reaction with $3,5OBz^-$ is obtained from the sum of these two products. Product concentrations, [1-ArX] are obtained from HPLC calibration curves (averages of triplicate 20 µL injections) for each product: [1-ArOH] (M) = 2.41 x $10^{-10}$•Peak Area (µV•s); [1-Ar3,5BzOH] (M) = 1.28 x $10^{-10}$•Peak Area (µV•s); [1-Ar3,5OBz] (M) = 1.25 x $10^{-10}$•Peak Area (µV•s).
e. Normalized Yield (%): % 1-ArOH = 100 (% 1-ArX)/{%1-ArOH + (%1-Ar3,5BzOH + %1-Ar3,5OBz)}.
f. $S_w^{OBz}$ = {[$H_2O$]•(% 1-Ar3,5BzOH + %1-Ar3,5OBz)}/{[Na3,5OBz]•(1-ArOH)}

**Table S2**. HPLC Peak Areas, Observed and Normalized Yields for Dediazoniation of 5 x $10^{-4}$ M 1-$ArN_2^+$ in Aqueous Solutions of Na2,6OBz at 40°C.[a]

| [Na2,6 OBz] M | [$H_2O$] M[b] | Peak Area ($10^6$ μV•s)[c] | | | Observed Yield (%)[d] | | | Normalized Yield (%)[e] | | $S_w^{OBz}$ [f] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1-ArOH | 1-Ar2,6BzOH | 1-Ar2,6OBz | 1-ArOH | 1-Ar2,6OBz | Total | 1-ArOH | 1-Ar2,6OBz | |
| 0 | 55.6 | 2.022 | 0 | 0 | 97.5 | 0 | 97.5 | 100 | 0 | |
| 0.1 | 55.4 | 1.953 | 0.109 | 0.024 | 94.1 | 2.99 | 97.1 | 96.9 | 3.08 | 17.6 |
| 0.3 | 54.8 | 1.831 | 0.274 | 0.066 | 88.2 | 7.63 | 95.9 | 92.0 | 7.96 | 15.8 |
| 0.5 | 51.3 | 1.747 | 0.426 | 0.113 | 84.2 | 12.1 | 96.3 | 87.4 | 12.6 | 14.8 |
| 0.7 | 49.2 | 1.694 | 0.566 | 0.165 | 81.6 | 16.4 | 98.0 | 83.3 | 16.7 | 14.1 |
| 1.0 | 45.7 | 1.558 | 0.755 | 0.230 | 75.1 | 22.2 | 97.3 | 77.2 | 22.8 | 13.5 |
| 1.5 | 42.4 | 1.361 | 1.005 | 0.344 | 65.6 | 30.1 | 95.7 | 68.5 | 31.5 | 13.0 |
| 2.0 | 42.0 | 1.274 | 1.211 | 0.439 | 61.4 | 36.8 | 98.2 | 62.5 | 37.5 | 12.6 |
| 2.5 | 36.4 | 1.089 | 1.431 | 0.542 | 52.5 | 44.0 | 96.5 | 54.4 | 45.6 | 12.2 |
| 3.0 | 32.8 | 0.962 | 1.620 | 0.645 | 46.4 | 50.5 | 96.9 | 47.9 | 52.1 | 11.9 |

a. Reaction time around 8 hours. 1-$ArN_2^+$ added as 10 μL 0.05 M 1-$ArN_2BF_4$ in MeOH to 1 mL of aqueous Na2,6OBz to initiate reaction.
b. Calculated from the measured weight of $H_2O$ in each solution.
c. Peak areas average values of triplicate 20 μl injections.
d. Observed yield : %1-ArX = 100 [1-ArX]/5 × $10^{-4}$ (X = OH, OBz). There are two dediazoniation products from reaction with 2,6OBz$^-$: 1-Ar2,6BzOH and 1-Ar2,6OBz. The normalized yield from reaction with 2,6OBz$^-$ is obtained from the sum of these two products. Product concentrations, [1-ArX] are obtained from HPLC calibration curves (average of triplicate 20 μL injections) for each product: [1-ArOH] (M) = 2.41 x $10^{-10}$•Peak Area (μV•s); [1-Ar2,6BzOH] (M) = 1.14 x $10^{-10}$•Peak Area (μV•s); [1-Ar2,6OBz] (M) = 1.055 x $10^{-10}$•Peak Area (μV•s).
e. Normalized Yield (%): % 1-ArOH = 100 (% 1-ArX)/{%1-ArOH + (%1-Ar2,6BzOH + %1-Ar2,6OBz)}.
f. $S_w^{OBz}$ = {[$H_2O$]•(% 1-Ar2,6BzOH + %1-Ar2,6OBz)}/{[Na2,6OBz]•(1-ArOH)}

**Table S3A.** HPLC Peak Areas, Observed and Normalized Yields for Dediazoniation of 1-$ArN_2^+$ in Aqueous Solutions of 8.2 x $10^{-5}$ M 1-$ArN_2^+$ in Methanol/Water Mixtures Containing 2.4 x $10^{-4}$ M HBr at 30 ºC.

| Run No. | Volume (mL) | | Weight (g) | | Peak Area ($10^6$ mV•s) | | Observed Yield[a] (%) | | % Yield Total | Normalized Yield[b] (%) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MeOH | $H_2O$ | MeOH | $H_2O$ | 1-ArOMe | 1-ArOH | 1-ArOMe | 1-ArOH | | 1-ArOMe | 1-ArOH |
| 1 | 0.06 | 0.95 | 0.04721 | 0.9515 | 0.0166 | 0.645 | 2.61 | 87.60 | 90.2 | 2.89 | 97.1 |
| 2 | 0.11 | 0.90 | 0.09661 | 0.9011 | 0.0309 | 0.672 | 4.87 | 91.05 | 95.9 | 5.08 | 49.2 |
| 3 | 0.16 | 0.85 | 0.12981 | 0.8538 | 0.0467 | 0.639 | 7.34 | 86.67 | 94.0 | 7.82 | 92.2 |
| 4 | 0.21 | 0.80 | 0.1688 | 0.8038 | 0.0817 | 0.644 | 10.20 | 87.30 | 97.5 | 10.4 | 89.6 |
| 5 | 0.31 | 0.70 | 0.2578 | 0.7048 | 0.1168 | 0.559 | 12.83 | 75.80 | 88.7 | 14.5 | 85.5 |
| 6 | 0.41 | 0.60 | 0.3326 | 0.6073 | 0.1716 | 0.516 | 18.36 | 70.00 | 88.4 | 20.8 | 79.2 |
| 7 | 0.51 | 0.50 | 0.4128 | 0.5091 | 0.1715 | 0.490 | 26.80 | 66.30 | 93.1 | 28.8 | 71.2 |
| 8 | 0.61 | 0.40 | 0.5003 | 0.4085 | 0.2359 | 0.449 | 37.10 | 61.00 | 98.1 | 37.8 | 62.2 |
| 9 | 0.71 | 0.30 | 0.5760 | 0.3087 | 0.2878 | 0.372 | 45.40 | 50.50 | 95.9 | 47.3 | 52.7 |
| 10 | 0.81 | 0.20 | 0.6520 | 0.2096 | 0.3570 | 0.290 | 56.10 | 39.30 | 95.4 | 58.8 | 41.2 |
| 11 | 0.91 | 0.10 | 0.7274 | 0.1003 | 0.4707 | 0.172 | 74.15 | 23.40 | 97.5 | 76.0 | 24.0 |
| 12 | 0.96 | 0.05 | 0.7675 | 0.0505 | 0.5379 | 0.094 | 84.60 | 12.80 | 97.4 | 86.6 | 13.2 |
| 13 | 1.01 | 0.00 | 0.8065 | 0.0000 | 0.6295 | 0.004 | 95.60 | 0.58 | 96.2 | 100.0 | 0.00 |

a. Calibration curves for 20 µL injections: [1-ArOH] (M) = 5.55 x $10^{-11}$•Peak Area (µV•s); [1-ArOMe] (M) = 6.45 x $10^{-11}$•Peak Area (µV•s)
b. Normalized yields were obtained from the measured yield divided by the total yield = %1-ArOMe + %1-ArOH. Normalized yields were used in the calculation of the selectivities in Table 3SB.

**Table S3B**. HPLC Peak Areas, Observed and Normalized Yields for Dediazoniation of 1-$ArN_2^+$ in Aqueous Solutions of 8.2 x $10^{-5}$ M 1-$ArN_2^+$ in Methanol/Water Mixtures Containing 2.4 x $10^{-4}$ M HBr at 30 ºC.

| Run No. | Density[a] (g/mL) | Volume[b] (mL) | MeOH[c] (Molar) | $H_2O$[d] (Molar) | Yield Ratio | Molar Ratio | Selectivity |
|---|---|---|---|---|---|---|---|
| | MeOH/Water Mixtures | MeOH + $H_2O$ Vols | | | %1-ArOMe / %1-ArOH | MeOH / $H_2O$ | $S_W^{MeOHe}$ |
| 1 | 0.9907 | 1.008 | 1.462 | 52.40 | 0.2977 | 0.02790 | 10.67 |
| 2 | 0.9843 | 1.004 | 2.694 | 49.84 | 0.1033 | 0.05405 | 1.91 |
| 3 | 0.9772 | 1.007 | 4.025 | 47.08 | 0.0848 | 0.08549 | 0.992 |
| 4 | 0.9705 | 1.002 | 5.257 | 44.52 | 0.1165 | 0.1181 | 0.986 |
| 5 | 0.9554 | 1.008 | 7.986 | 38.83 | 0.1695 | 0.2057 | 0.824 |
| 6 | 0.9416 | 0.9982 | 10.310 | 33.77 | 0.2631 | 0.3053 | 0.862 |
| 7 | 0.9265 | 0.9950 | 12.95 | 28.40 | 0.4043 | 0.4559 | 0.887 |
| 8 | 0.9269 | 0.9815 | 15.91 | 23.10 | 0.6080 | 0.6887 | 0.883 |
| 9 | 0.9006 | 0.9824 | 18.30 | 17.44 | 0.8983 | 1.049 | 0.856 |
| 10 | 0.8739 | 0.9859 | 20.64 | 11.80 | 1.428 | 1.749 | 0.817 |
| 11 | 0.8431 | 0.9817 | 23.13 | 5.671 | 3.167 | 4.079 | 0.777 |
| 12 | 0.8282 | 0.9877 | 24.25 | 2.838 | 6.605 | 8.545 | 0.773 |
| 13 | 0.8126 | 0.9925 | 25.36 | 0.000 | | | |

a. From International Critical Tables of MeOH/$H_2O$ densities at 20 ˚C.{Bearce, 1928 #2826}
b. Volume = {($H_2O$(g) + MeOH(g)}/density(g/mL)
c. MeOH M = {MeOH (moles) • 1000}/Volume
d. $H_2O$ M = {$H_2O$ (moles) • 1000}/Volume
e. $S_W^{MeOH}$ = {%1-ArOMe/%1-ArOH}•{[$H_2O$]/[MeOH]}

**Table S4**. HPLC Peak Areas, Observed and Normalized Yields from Dediazoniation of $1 \times 10^{-4}$ M 16-Ar$N_2^+$ in [CTACl] + [CTA3,5OBz] = 10 mM at 25°C.[a]

| [3,5 CTA OBz] mM[b] | Peak Area[c] (μV• sec) | | | | | | Observed Yield (%)[d] | | | | | Normalized Yield (%)[e] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16-ArOH | 16-ArH | 16-Ar BzOH | 16-Ar OBz | 16-ArCl | 16-ArOMe | 16-Ar OH | 16-Ar OBz | 16-ArCl | 16-ArOMe | Total | 16-Ar OH | 16-Ar OBz | 16-Ar Cl | 16-Ar OMe |
| 0 | 1.570 | 0.216 | 0.000 | 0.000 | 0.356 | 0.067 | 83.1 | 0.00 | 13.3 | 2.50 | 98.9 | 84.0 | 0.00 | 13.5 | 2.53 |
| 1 | 1.299 | 0.254 | 0.239 | 0.091 | 0.272 | 0.116 | 72.4 | 8.41 | 10.3 | 4.32 | 95.5 | 75.9 | 8.81 | 10.8 | 4.53 |
| 2 | 1.159 | 0.239 | 0.361 | 0.139 | 0.251 | 0.170 | 65.2 | 12.7 | 9.52 | 6.35 | 93.8 | 69.5 | 13.5 | 10.2 | 6.77 |
| 3 | 1.105 | 0.225 | 0.426 | 0.168 | 0.220 | 0.232 | 62.0 | 15.1 | 8.35 | 8.64 | 94.1 | 65.9 | 16.0 | 8.88 | 9.18 |
| 4 | 0.989 | 0.209 | 0.581 | 0.227 | 0.188 | 0.265 | 55.9 | 20.6 | 7.14 | 9.88 | 93.5 | 59.8 | 22.0 | 7.63 | 10.6 |
| 6 | 0.659 | 0.194 | 1.064 | 0.427 | 0.086 | 0.317 | 39.9 | 37.9 | 3.24 | 11.8 | 92.9 | 43.0 | 40.8 | 3.49 | 12.7 |
| 7 | 0.542 | 0.188 | 1.309 | 0.502 | 0.046 | 0.338 | 34.2 | 46.1 | 1.73 | 12.6 | 94.6 | 36.1 | 48.7 | 1.83 | 13.3 |
| 9 | 0.451 | 0.169 | 1.358 | 0.521 | 0.013 | 0.414 | 29.1 | 48.0 | 0.51 | 15.4 | 93.0 | 31.3 | 51.6 | 0.5 | 16.6 |
| 10 | 0.444 | 0.161 | 1.379 | 0.546 | 0.000 | 0.442 | 28.3 | 49.0 | 0.00 | 16.5 | 93.8 | 30.2 | 52.2 | 0.00 | 17.6 |

a. Reaction time ca.12 hours. 16-Ar$N_2^+$ added as 10 μL of 0.01 M 16-Ar$N_2BF_4$ in MeOH to 1 mL of amphiphile solution to initiate reaction.
b. [CTACl] mM = 10 mM – [CTA3,5OBz] mM.
c. Average of triplicate 100 μl injections.
d. Observed yield: % 16-ArX = 100 [16-ArX]/($1 \times 10^{-4}$ M 6-Ar$N_2BF_4$) where X = $H_2O$, Cl, or 3,5OBz. 16-Ar3,5OBz yields are the sum of 16-Ar3,5BzOH and 16-Ar3,5OBz yields. Total 16-ArOH yields are the sum of measured 16-ArOH and 16-ArH yields (see text). Yields are obtained from the corresponding calibration curves. Calibration curves for 20 μL injections: [16-ArOH] (M) = 4.63 x $10^{-11}$•Peak Area (μV•s); [16-ArH] (M) = 4.83 x $10^{-11}$•Peak Area (μV•s); [16-Ar3,5BzOH] (M) = 1.28 x $10^{-10}$•Peak Area (μV•s); [1-Ar3,5OBz] (M) = 1.28 x $10^{-10}$•Peak Area (μV•s); [16-ArCl] (M) = 3.79 x $10^{-11}$•Peak Area (μV•s); [1-ArOMe] (M) = 3.73 x $10^{-11}$•Peak Area (μV•s).
e. Normalized Yield (%): % 16-ArX = 100 (% 16-ArX)/{%(16-ArOH + 16-ArH) + %(16-ArBzOH +16-ArOBz) + % 16-ArCl + %16-ArOMe}, X = OH, H, OBz, Cl, and OMe.

**Table S5**. HPLC Peak Areas, Observed and Normalized Yields for Dediazoniation of 1 x $10^{-4}$ M 16-Ar$N_2^+$ in [CTACl] + [CTA-2,6OBz] = 10 mM at 25°C.[a]

| [2,6-CTA OBz] mM[b] | Peak Area[c] (μV• sec) | | | | | | Observed Yield (%)[d] | | | | | Normalized Yield (%)[e] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16-ArOH | 16-ArH | 16-Ar BzOH | 16-Ar OBz | 16-ArCl | 16-ArOMe | 16-Ar OH | 16-Ar OBz | 16-Ar Cl | 16-Ar OMe | Total | 16-Ar OH | 16-Ar OBz | 16-Ar Cl | 16-Ar OMe |
| 0 | 1.641 | 0.201 | 0.000 | 0.000 | 0.356 | 0.067 | 85.7 | 0.00 | 14.0 | 2.30 | 101 | 84.0 | 0.00 | 13.7 | 2.26 |
| 1 | 1.381 | 0.271 | 0.165 | 0.049 | 0.288 | 0.081 | 77.0 | 4.81 | 10.9 | 3.89 | 96.7 | 79.7 | 4.98 | 11.3 | 4.03 |
| 2 | 1.260 | 0.259 | 0.236 | 0.070 | 0.256 | 0.119 | 70.9 | 6.86 | 9.70 | 5.77 | 93.2 | 76.1 | 7.36 | 10.4 | 6.19 |
| 3 | 1.235 | 0.253 | 0.324 | 0.102 | 0.244 | 0.155 | 69.4 | 9.52 | 9.25 | 7.48 | 95.6 | 72.6 | 9.95 | 9.67 | 7.82 |
| 4 | 1.158 | 0.244 | 0.404 | 0.122 | 0.225 | 0.187 | 65.4 | 11.8 | 8.56 | 9.01 | 94.8 | 69.0 | 12.5 | 9.03 | 9.51 |
| 6 | 1.073 | 0.245 | 0.581 | 0.186 | 0.112 | 0.227 | 61.5 | 17.2 | 4.25 | 10.9 | 93.9 | 65.5 | 18.3 | 4.53 | 11.6 |
| 7 | 1.070 | 0.242 | 0.666 | 0.214 | 0.066 | 0.243 | 61.2 | 19.7 | 2.52 | 11.8 | 95.1 | 64.3 | 20.7 | 2.65 | 12.4 |
| 9 | 0.941 | 0.241 | 0.829 | 0.261 | 0.020 | 0.287 | 55.2 | 24.5 | 0.76 | 13.9 | 94.3 | 58.5 | 26.0 | 0.80 | 14.7 |
| 10 | 0.927 | 0.239 | 0.918 | 0.294 | 0.000 | 0.304 | 54.4 | 27.2 | 0.00 | 14.7 | 96.3 | 56.5 | 28.2 | 0.00 | 15.3 |

a. Reaction time ca.12 hours. 16-Ar$N_2^+$ added as 10 μL of 0.01 M 16-Ar$N_2BF_4$ in MeOH to 1 mL of amphiphile solution to initiate reaction.
b. [CTACl] mM = 10 mM – [CTA2,6OBz] mM.
c. Average of triplicate 100 μl injections.
d. Observed yield: %16-ArX = 100 [16-ArX]/(1 × $10^{-4}$ M 16-Ar$N_2BF_4$) where X = $H_2O$, Cl, or 2,6OBz. 16-Ar2,6OBz yields are the sum of 16-Ar2,6BzOH and 16-Ar2,6OBz yields. Total 16-ArOH yields are the sum of measured 16-ArOH and 16-ArH yields (see text). Yields are obtained from the corresponding calibration curves. Calibration curves for 20 μL injections: [16-ArOH] (M) = 4.63 x $10^{-11}$•Peak Area (μV•s); [16-ArH] (M) = 4.83 x $10^{-11}$•Peak Area (μV•s); [16-Ar2,6BzOH] (M) = 1.14 x $10^{-10}$•Peak Area (μV•s); [1-Ar3,5OBz] (M) = 1.06 x $10^{-10}$•Peak Area (μV•s); [16-ArCl] (M) = 3.79 x $10^{-11}$•Peak Area (μV•s); [1-ArOMe] (M) = 3.73 x $10^{-11}$•Peak Area (μV•s).
e. Normalized Yield (%): % 16-ArX = 100 (% 16-ArX)/{%(16-ArOH + 16-ArH) + %(16-ArBzOH +16-ArOBz) + %16-ArCl +%16-ArOMe}, X = OH, OBz, Cl, H, and OMe.

**Table S6**. Interfacial Molarities of $OBz_m$, $H_2O_m$, $Cl_m$, and $MeOH_m$, Respectively, in CTACl/CTA3,5OBz (3,5), and CTACl/CTA2,6OBz (2,6) Micellar Solutions.

| CTAOBz Mole Fraction | $OBz_m$ (3,5) | $OBz_m$ (2,6) | $H_2O_m$ (3,5) | $H_2O_m$ (2,6) | $Cl_m$ (3,5) | $Cl_m$ (2,6) | $MeOH_m$ (3,5) | $MeOH_m$ (2,6) |
|---|---|---|---|---|---|---|---|---|
| 0.0 | 0 | 0 | 41.9 | 45.0 | 1.24 | 1.27 | 1.19 | 1.03 |
| 0.1 | 0.31 | 0.18 | 44.2 | 44.9 | 0.96 | 1.01 | 2.35 | 2.06 |
| 0.2 | 0.52 | 0.27 | 41.4 | 42.9 | 0.90 | 0.92 | 3.61 | 3.28 |
| 0.3 | 0.64 | 0.38 | 39.3 | 40.9 | 0.77 | 0.85 | 4.90 | 4.18 |
| 0.4 | 0.94 | 0.50 | 36.3 | 38.8 | 0.64 | 0.78 | 5.61 | 5.07 |
| 0.6 | 2.04 | 0.78 | 27.6 | 36.6 | 0.25 | 0.35 | 6.68 | 6.14 |
| 0.7 | 2.58 | 0.91 | 23.9 | 35.4 | 0.10 | 0.17 | 6.98 | 6.53 |
| 0.9 | 2.78 | 1.20 | 20.6 | 31.7 | 0.00 | 0.01 | 8.49 | 7.65 |
| 1.0 | 2.83 | 1.33 | 19.8 | 30.5 | 0 | 0 | 8.95 | 7.90 |

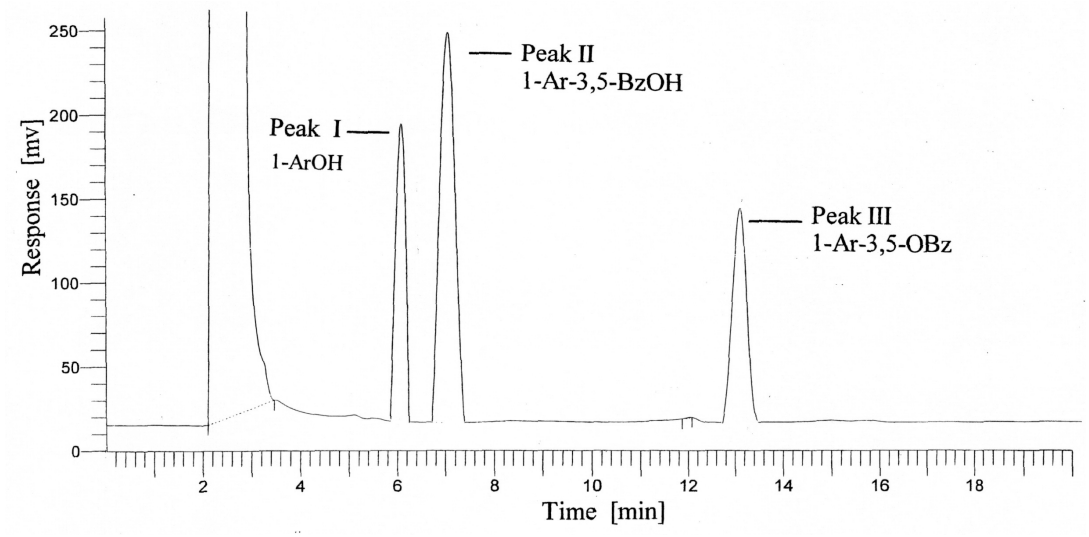


**Figure S1**. Typical HPLC chromatogram of dediazoniation products of 5 x $10^{-4}$ M 1-$ArN_2^+$ in 1% MeOH by volume 2.5 M Na3,5OBz aqueous solutions at 40 ºC for ca. 8 h at ambient pH.

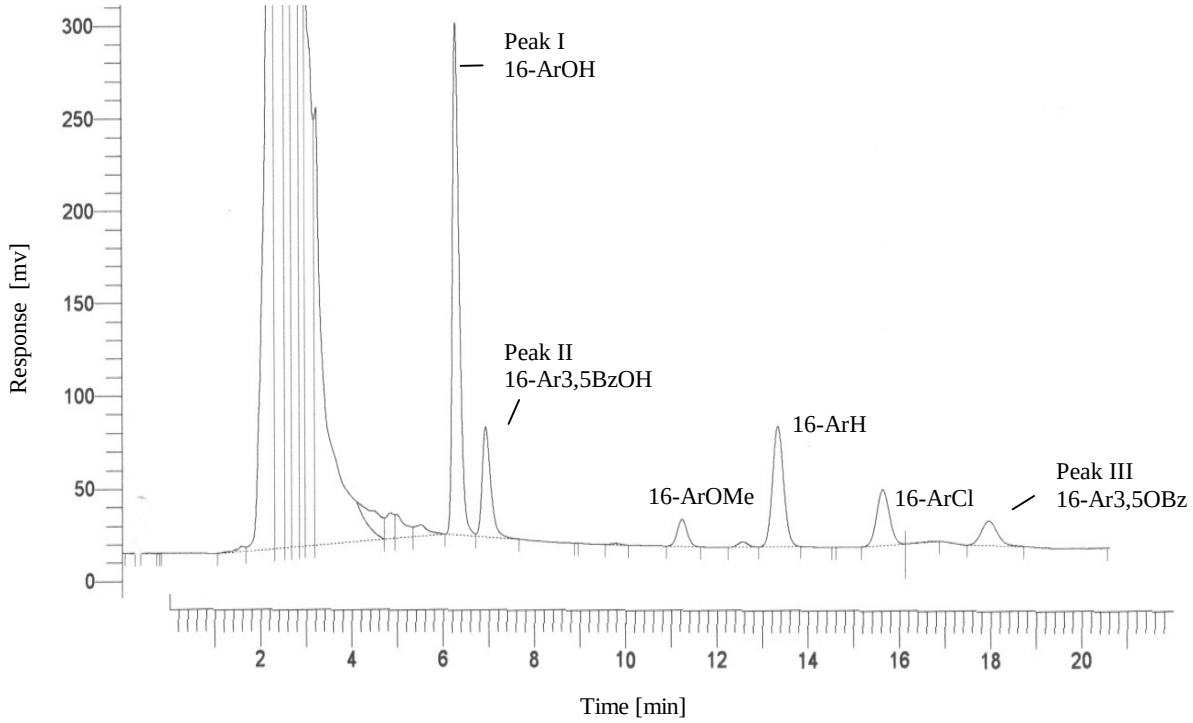


**Figure S2**. Typical HPLC chromatogram of dediazoniation products of 1 x $10^{-4}$ M 16-$ArN_2^+$ in mixed micellar solutions of 1% MeOH by volume, 9 mM CTACl and 1 mM CTA3,5OBz at 25 ºC for 12 h at ambient pH.