SUPPLEMENTARY INFORMATION

Direct Analysis and Stability of Methylated Trivalent Arsenic Metabolites in Cells and Tissues

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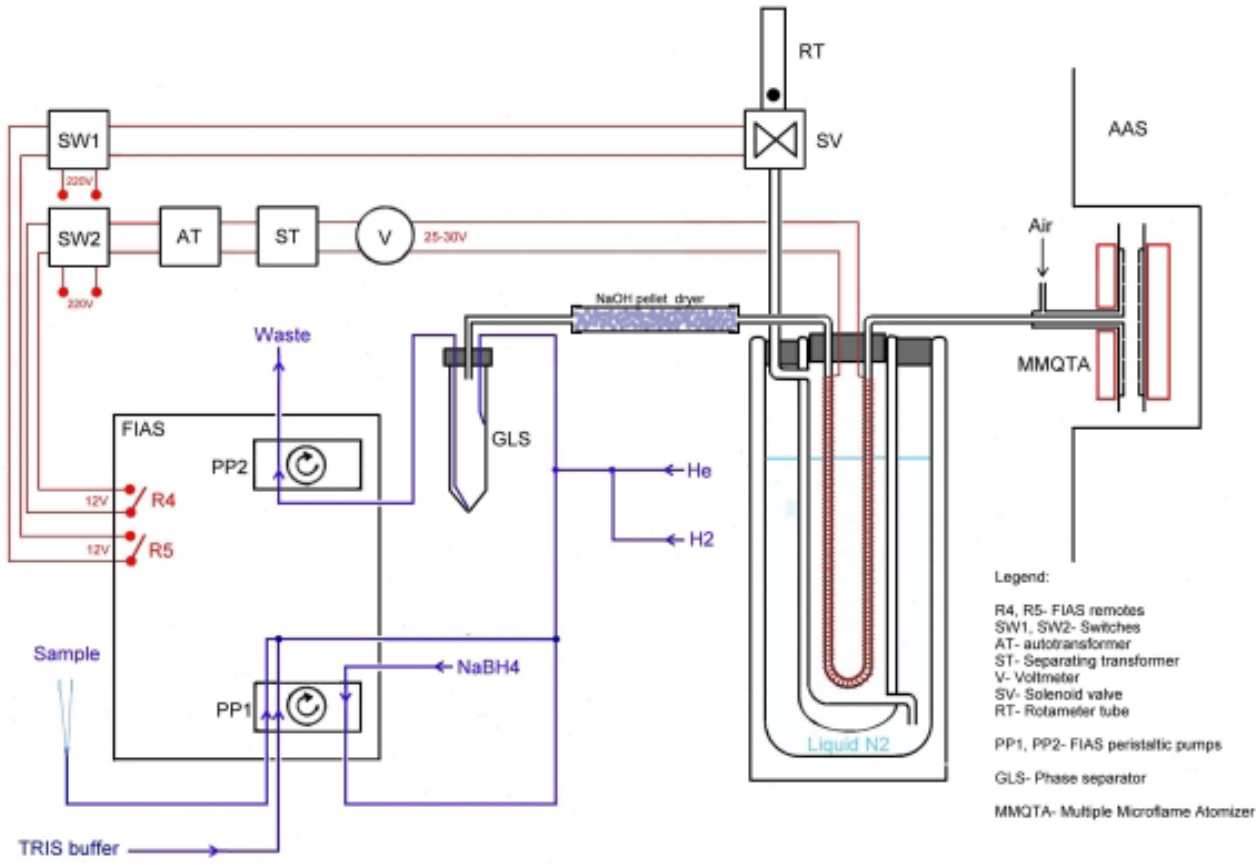

Figure SI 1: The optimized HG-CT-AAS system for slurry sampling.

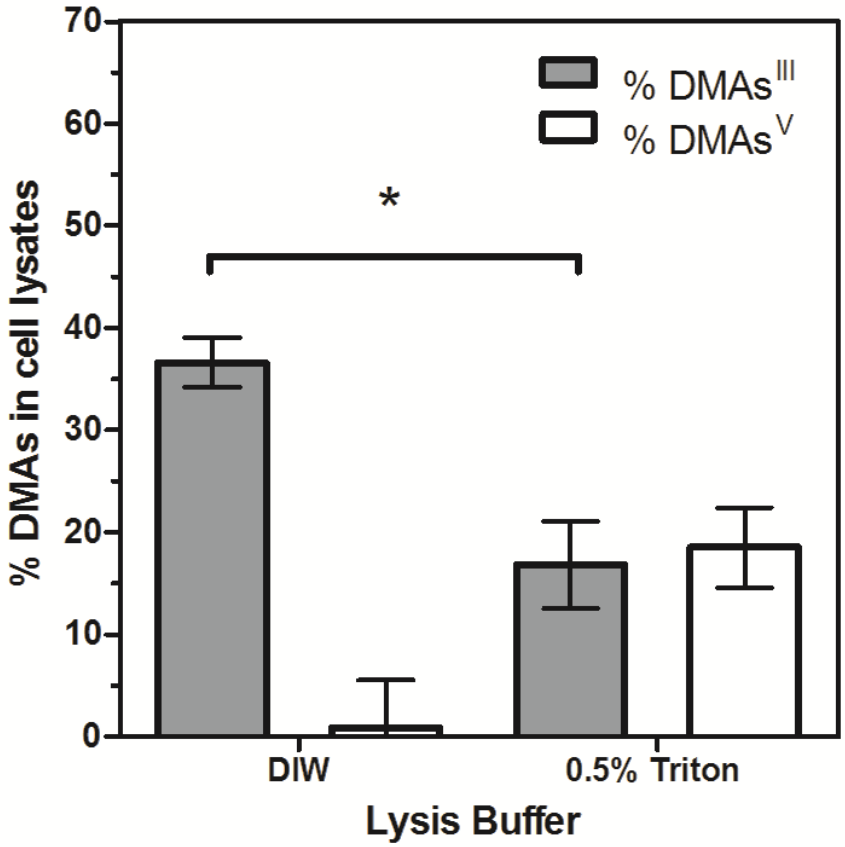

Figure SI 2: Effect of Triton X100 on $DMAs^{III}$ stability in cell lysates: UROtsa/F35 cells were exposed to 0.1 µM iAs^{III} (15 ng As/well) for 24 hours. Cells were then lysed in either DIW or 0.5% Triton X-100. $DMAs^{III}$ and $DMAs^{V}$ were analyzed in fresh cell lysates by HG-CT-AAS. Values represent the percentage of total As in lysate (mean ± SD, n=3). * The percentage of $DMAs^{III}$ in lysates prepared in Triton X100 is significantly different from that in lysates prepared in DIW ($p < 0.01$).

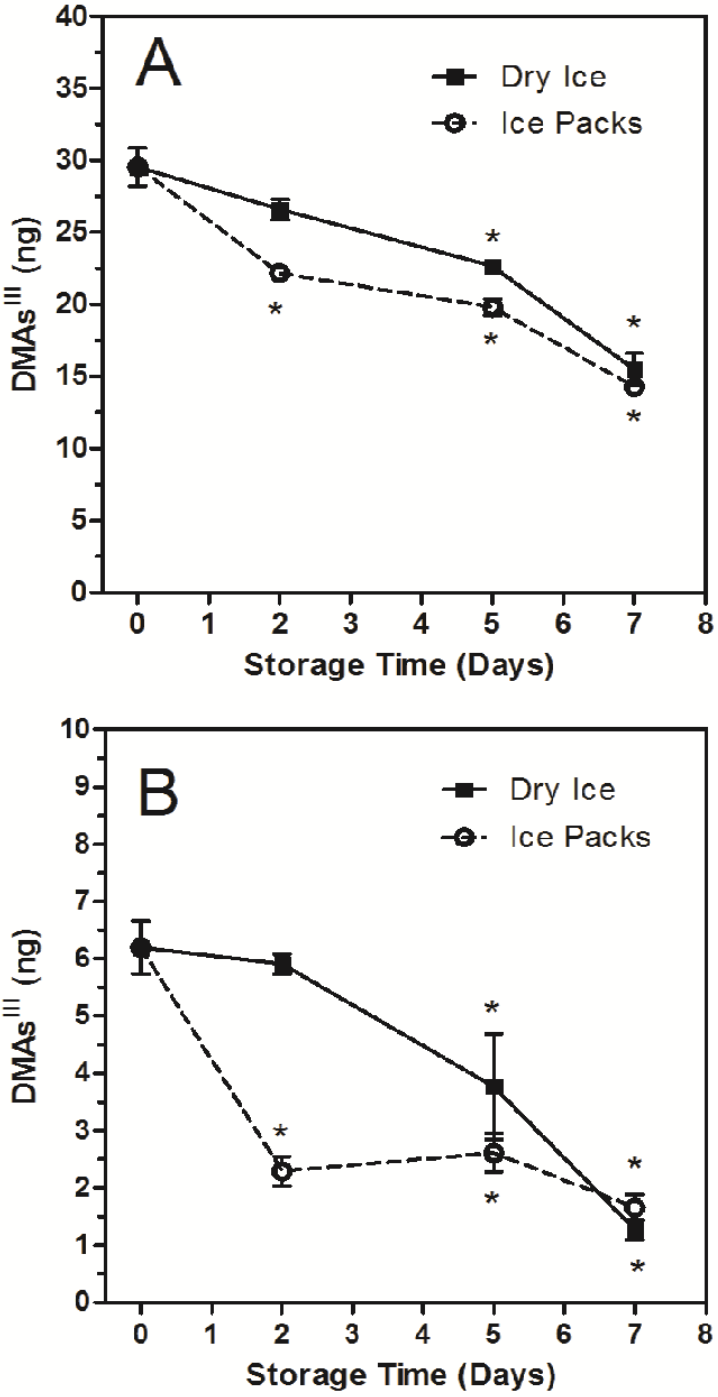

Figure SI 3: The oxidation of $DMAs^{III}$ in UROtsa/F35 culture medium (A) and cell lysates (B) placed in shipping containers packed with dry ice or with pre-frozen ice packs (mean ± SD, n = 3). Cells were exposed to 0.5 μM MAs^{III} (75 ng As/well) for 18 hours, lysed in cold DIW and then aliquoted for storage and analysis by HG-CT-AAS. * The concentration of $DMAs^{III}$ is significantly different from that in fresh cell lysates or culture medium ($p < 0.01$).

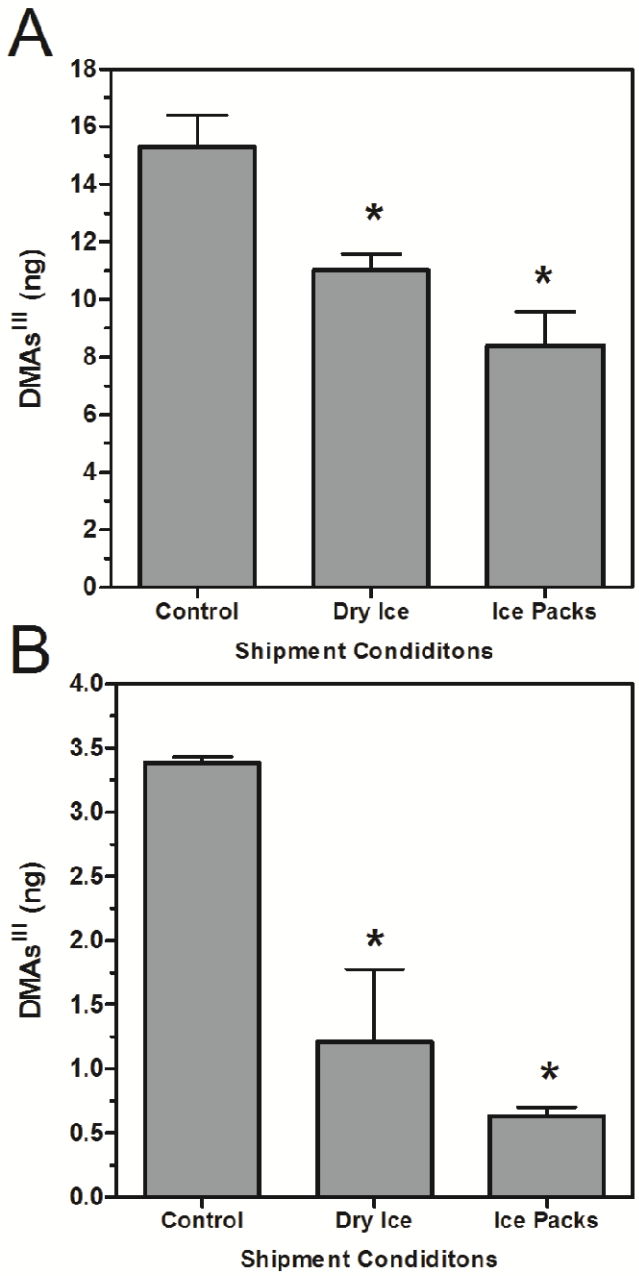

Figure SI 4: The oxidation of $DMAs^{III}$ in UROtsa/F35culture medium (A) and cell lysates (B) shipped to Prague, the Czech Republic: $DMAs^{III}$ concentrations cell lysates and medium were measured immediately after exposure to 0.5μM MAsIII (75 ng As/well) for 18 hours and after shipment to Prague (mean ± SD, n = 4). The samples were shipped in containers filled with either dry ice or pre-frozen ice packs. The samples were analyzed in Prague 8 days after shipment due to a 4 day customs delay. * The concentration of $DMAs^{III}$ is significantly different from the concentration determined in fresh cell lysates or culture medium ($p < 0.01$).