SUPPORTING INFORMATION

Metal-Containing Polystyrene Beads as Standards for Mass Cytometry

Ahmed I. Abdelrahman, Olga Ornatsky, Dmitry Bandura, Vladimir Baranov,* Robert kinach, Sheng Dai, Stuart C. Thickett, Scott Tanner, and Mitchell A. Winnik*

Department of Chemistry, University of Toronto, 80 St George Street Toronto ON M5S3H6, Canada

Email: E-mail: mwinnik@chem.utoronto.ca, vladimir.baranov@utoronto.ca

Table S1 Microwave digestion system: ¹ digestion program. This is table is reproduced from ref. 1 with permission.

<table>
<thead>
<tr>
<th>STEP</th>
<th>Time (min)</th>
<th>Power (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>400</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>400</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>400</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
<td>400</td>
</tr>
<tr>
<td>8</td>
<td>30</td>
<td>Allow to cool to room temperature</td>
</tr>
</tbody>
</table>

Figure S1. SEM image for the PS microsphere samples AA086-Tm synthesized in the presence of 0.1 % TmCl₃ added in the second stage with AA: 2 wt %/styrene (d = 1.9 μm, CV_d = 1.9%). The represents 10 μm.
**Figure S2.** Distribution of mass cytometry signal intensity for a population of PS microspheres (AA083-Tb) prepared by 2-DisP in presence of TbCl$_3$ (0.1 wt%/styrene) and AA (2.0 wt%/styrene).

![Image](image1.png)

**Figure S3.** Signal intensity distribution for A) $^{139}$La and B) $^{169}$Tm for sample AA105. This sample is characterized by $CV_{La} = 13\%$ and $CV_{Tm} = 11\%$. This figure is reproduced from ref. 2 with permission.

![Image](image2.png)
References