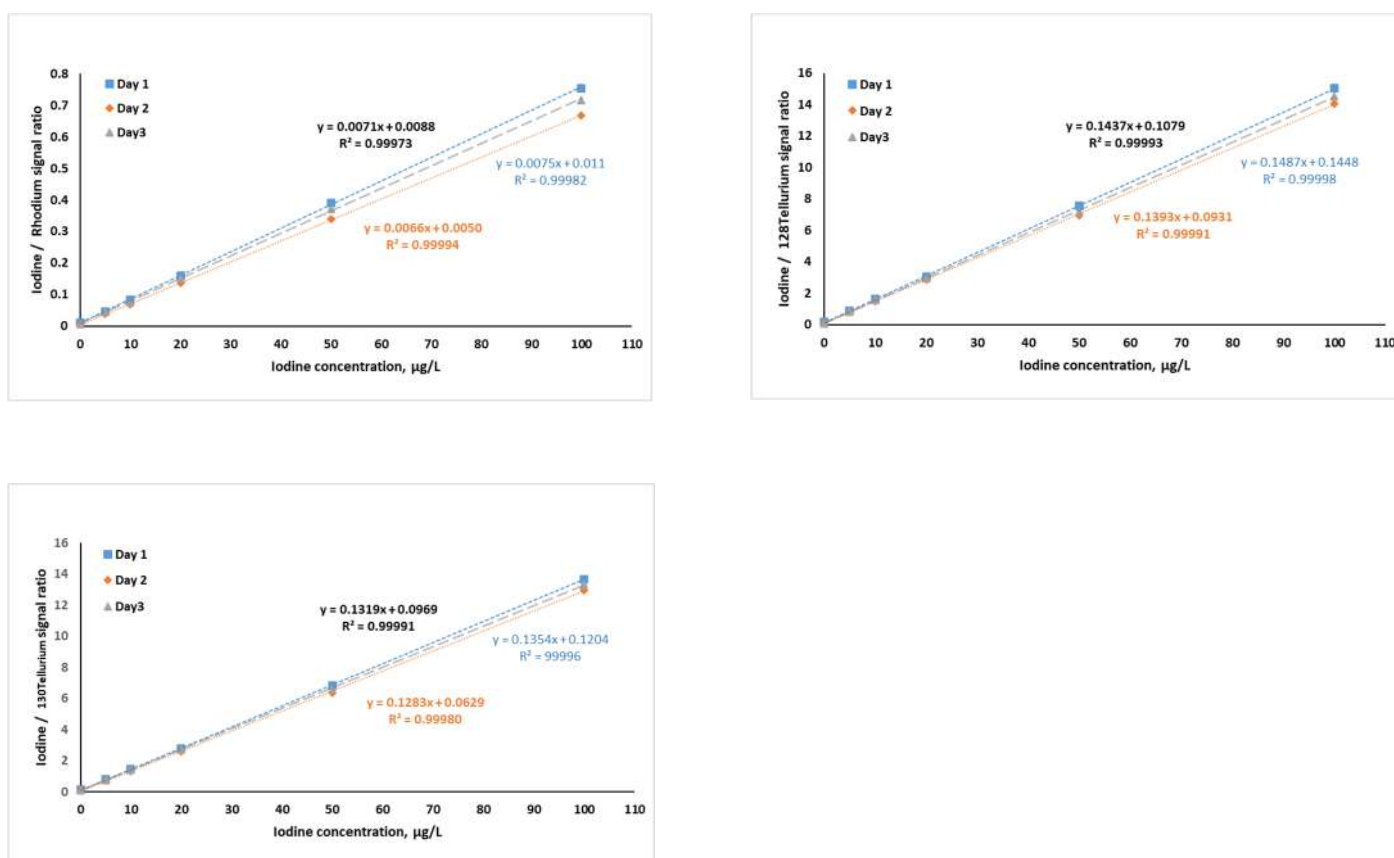


## Iodine Quantification in Human Saliva by Inductively Coupled Plasma Mass Spectrometry: A Preliminary Cohort Study

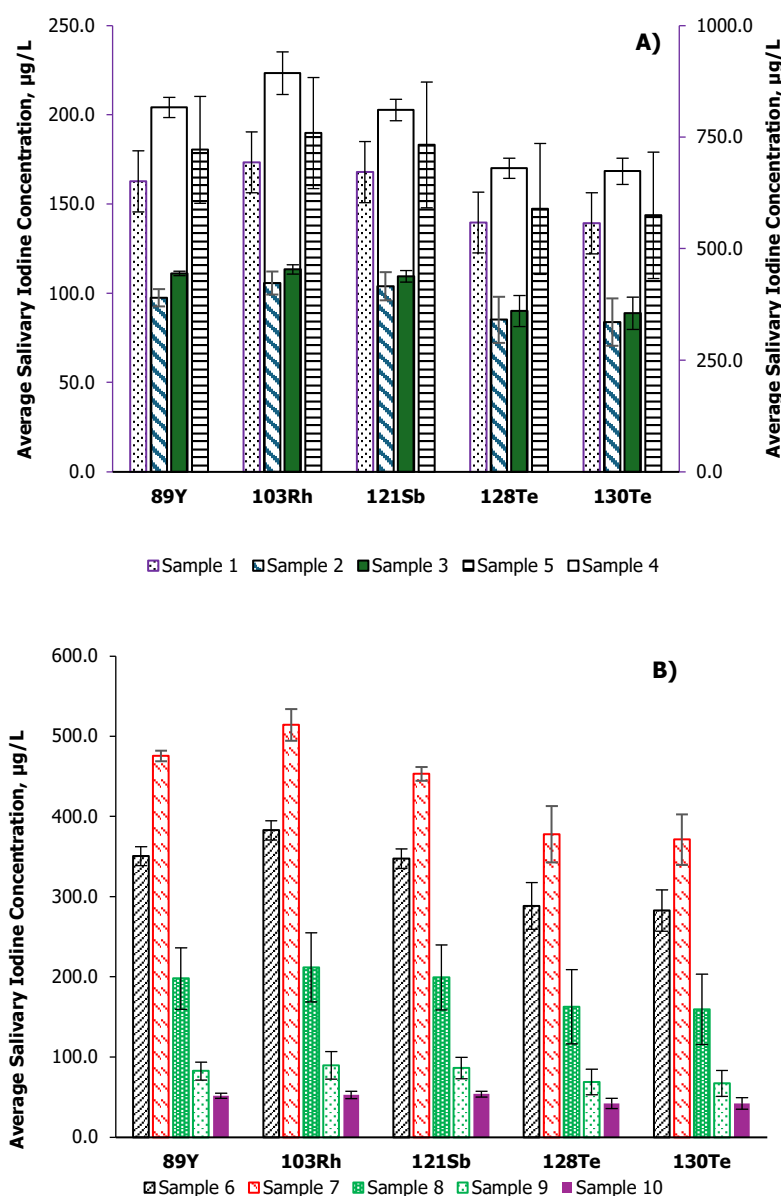
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**Figure S1.** Inter-day calibration curves for iodine using three internal standards (<sup>103</sup>Rh, <sup>128</sup>Te and <sup>130</sup>Te). Calibration standards (0–100 µg/L concentration range) were analysed over three independent days (Days 1, 2 and 3). The inter-day precision of calibration curve's slope, expressed as relative standard deviation (RSD), was 6.0%, 3.3% and 2.7% for <sup>103</sup>Rh, <sup>128</sup>Te and <sup>130</sup>Te internal standards, respectively.



**Figure S2:** Salivary iodine concentration ( $\mu\text{g/L}$ ) was measured in randomly picked samples from the cohort group in two batches (**A** and **B**) over three consecutive days. The graph indicates the 3-day average for each tested internal standard ( $^{89}\text{Y}$ ,  $^{103}\text{Rh}$ ,  $^{121}\text{Sb}$ ,  $^{128}\text{Te}$  and  $^{130}\text{Te}$ ). Error bars represent  $\pm$  standard deviations for intra-day reproducibility testing. For Figure S1 **A** "Sample 4" corresponds to secondary vertical axis due to higher salivary iodine concentration measured.

**Table S1:** Performance metrics of the  $^{103}\text{Rh}$  and  $^{128}\text{Te}$  internal standard candidates (20  $\mu\text{g/L}$ ) for the optimized ICP-MS method with 1% ammonia diluent. The table summarises the average spike recoveries (%) and three-day relative standard deviation (RSD) of the real saliva samples for the cohort group studied ( $n = 20$ ). The data for optimal  $^{130}\text{Te}$  is shown in the main body of the article (Table 3).

No.	Age	Sex	Smoking Status	$^{103}\text{Rh}$ corrected, 3-day average			$^{128}\text{Te}$ corrected, 3-day average		
				Salivary iodine, $\mu\text{g/L}$	3-day RSD, %	Average ( $n=3$ ) Spike Recovery, %	Salivary iodine, $\mu\text{g/L}$	3-day RSD, %	Average ( $n=3$ ) Spike Recovery, %
1	20	M	NS	55.8	11.3	136.3	44.9	11.9	104.0
2	45	F	FS	54.9	6.9	141.5	43.7	4.6	101.3
3	46	F	NS	228.3	2.8	137.5	179.7	8.1	102.0
4	47	M	NS	139.2	5.0	137.5	110.7	3.1	99.2
5	59	F	NS	949.6	5.9	166.4	782.4	14.5	100.6
6	45	F	NS	170.6	1.7	139.4	135.9	3.8	102.5
7	42	F	NS	229.4	4.0	140.7	170.9	5.8	98.4
8	51	F	NS	70.3	13.9	135.7	58.6	2.4	99.7
9	N/A	F	NS	21.0	20.2	137.8	18.0	7.9	101.8
10	N/A	N/A	N/A	173.0	7.0	140.2	134.7	5.5	100.5
11	27	M	NS	173.4	10.4	144.6	139.7	16.2	101.6
12	27	F	NS	105.7	6.1	143.4	85.2	15.2	100.5
13	31	M	NS	113.4	2.3	139.1	90.1	9.6	99.2
14	28	F*	NS	893.6	5.4	148.9	680.5	3.3	96.8
15	63	M	NS	189.8	16.4	143.0	147.4	24.9	99.2
16	58	M	NS	382.9	3.1	150.4	288.5	10.1	102.1
17	46	F	NS	514.2	3.8	155.6	377.9	9.3	101.9
18	N/A	M	CS	211.8	20.3	144.3	162.7	28.5	96.7
19	20	F	NS	89.7	19.1	142.8	68.9	23.2	100.8
20	33	F	NS	52.8	8.8	143.7	42.3	15.5	101.9

**Footnotes:** F – Female; M – Male; NS – Never smoker; CS – Current smoker; FS – Former smoker; N/A – Data not available (not reported); \* Self-reported pregnancy