

Determination of Lead in Eye Shadow and Blush by High-Resolution Continuum Source Graphite Furnace Atomic Absorption Spectrometry Employing Direct Solid Sampling

*Ariane I. Barros, Tiago V. Silva, Edilene C. Ferreira and José A. Gomes Neto**

Analytical Chemistry Department, São Paulo State University,
P.O. Box 355, 14801-970 Araraquara-SP, Brazil

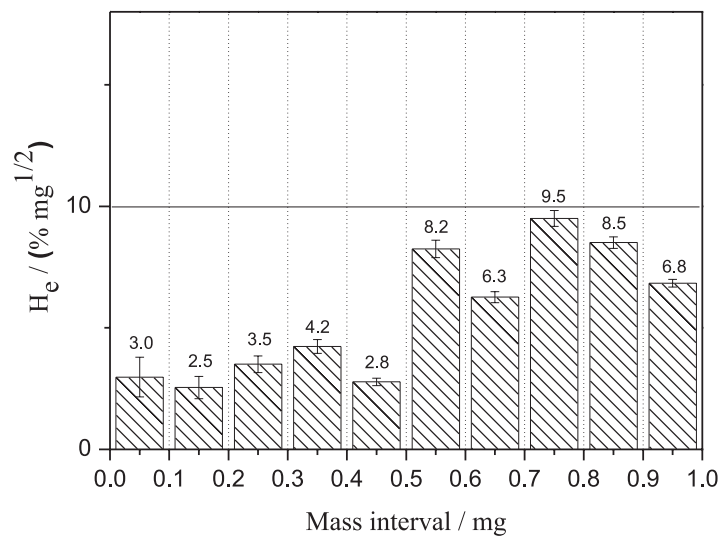


Figure S1. Estimate of the homogeneity factor (H_e) for the Pb in an eye shadow sample containing $4.981 \pm 0.722 \text{ ng mg}^{-1}$.

Table S1. Results (ng mg⁻¹) expressed as the average \pm standard deviation for the Pb in eye shadow samples adult and infant determined (n = 3) by the proposed procedure (DSS HR-CS GF AAS)

Sample ^a	White	Black	Light pink	Dark pink	Pink	Light blue	Green	Lilac	Purple	Yellow	Brown	Gray	Salmon-pink	Beige	Rose wine	
C1	8.131 \pm 0.059	5.423 \pm 0.225	7.268 \pm 0.351	-	-	7.491 \pm 0.104	-	-	-	-	-	-	-	-	-	
C2	8.483 \pm 0.443	-	4.748 \pm 0.331	-	-	6.150 \pm 0.153	6.307 \pm 0.304	6.646 \pm 0.821	-	-	-	-	-	-	-	-
C3	-	-	-	-	-	5.147 \pm 0.739	4.926 \pm 0.224	-	-	-	-	-	-	6.355 \pm 0.301	-	-
C4	8.848 \pm 0.430	-	9.632 \pm 0.491	-	-	6.901 \pm 0.466	-	-	-	-	-	-	-	-	-	-
C5	-	-	-	-	3.971 \pm 0.276	-	4.779 \pm 0.168	-	-	-	-	-	-	-	-	-
B1a	-	-	-	-	-	5.787 \pm 0.047	-	-	-	-	-	6.856 \pm 0.064	-	-	-	-
B1b	5.854 \pm 0.298	-	-	-	-	-	-	-	-	-	2.819 \pm 0.201	-	-	-	-	-
B2a	-	2.102 \pm 0.074	0.997 \pm 0.082	3.676 \pm 0.070	-	-	-	-	-	-	-	-	5.362 \pm 0.162	-	4.187 \pm 0.251	-
B2b	3.703 \pm 0.177	1.222 \pm 0.219	1.739 \pm 0.083	-	-	3.110 \pm 0.156	-	1.616 \pm 0.112	-	-	-	-	-	-	-	-
B3	-	-	2.343 \pm 0.012	-	2.213 \pm 0.013	-	-	-	-	-	2.268 \pm 0.037	-	5.543 \pm 0.098	-	-	-
B4	-	-	-	-	-	-	-	-	-	-	-	5.421 \pm 0.268	5.421 \pm 0.096	-	-	-
C2	-	-	6.998 \pm 0.042	-	-	7.080 \pm 0.294	6.740 \pm 0.169	-	6.907 \pm 0.133	7.344 \pm 0.229	-	-	-	-	-	-
C6a	4.613 \pm 0.294	5.022 \pm 0.378	5.069 \pm 0.086	-	-	4.268 \pm 0.022	-	-	-	-	-	-	-	-	-	-
C6b	6.467 \pm 0.153	6.464 \pm 0.457	6.193 \pm 0.317	5.090 \pm 0.011	4.849 \pm 0.375	5.036 \pm 0.346	-	4.176 \pm 0.151	5.331 \pm 0.337	-	-	5.345 \pm 0.422	-	-	-	-

^aMakeup kit containing sample of different colors. The number indicates different brands and the letter indicates different makeup kit. - Unavailable in color makeup kit.

Table S2. Results (ng mg⁻¹) expressed as the average \pm standard deviation for the Pb in blush samples adult and infant determined (n = 3) by the proposed procedure (DSS HR-CS GF AAS)

Sample ^a	Light pink	Dark pink	Claret	Orange	Coral	Rose wine	Brown	Lilac	Blue
C1	4.535 \pm 0.221	3.972 \pm 0.367	3.740 \pm 0.151	–	–	–	–	–	–
C4	–	7.108 \pm 0.405	–	7.960 \pm 0.275	–	–	–	8.369 \pm 0.549	–
C7	4.490 \pm 0.217	4.805 \pm 0.008	5.376 \pm 0.350	–	4.115 \pm 0.165	4.190 \pm 0.247	5.526 \pm 0.536	–	–
C8	–	5.403 \pm 0.440	–	4.843 \pm 0.079	–	–	–	–	–
Adult	B2c	3.273 \pm 0.019	–	–	–	–	–	–	–
	B3	–	–	–	1.065 \pm 0.060	2.468 \pm 0.041	–	–	–
	B5	0.668 \pm 0.001	–	–	–	0.362 \pm 0.015	–	–	–
	B6	3.041 \pm 0.262	–	–	5.776 \pm 0.425	–	–	–	–
	B7	1.884 \pm 0.097	–	–	2.115 \pm 0.160	–	–	–	–
	C2	–	–	–	7.302 \pm 0.225	–	–	–	–
Infant	C6b	4.769 \pm 0.181	–	–	5.611 \pm 0.430	–	–	–	–
	C9	–	6.627 \pm 0.284	27.078 \pm 0.008	–	–	–	–	28.091 \pm 2.290

^aMakeup kit containing sample of different colors. The number indicates different brands and the letter indicates different makeup kit. – Unavailable in color makeup kit.