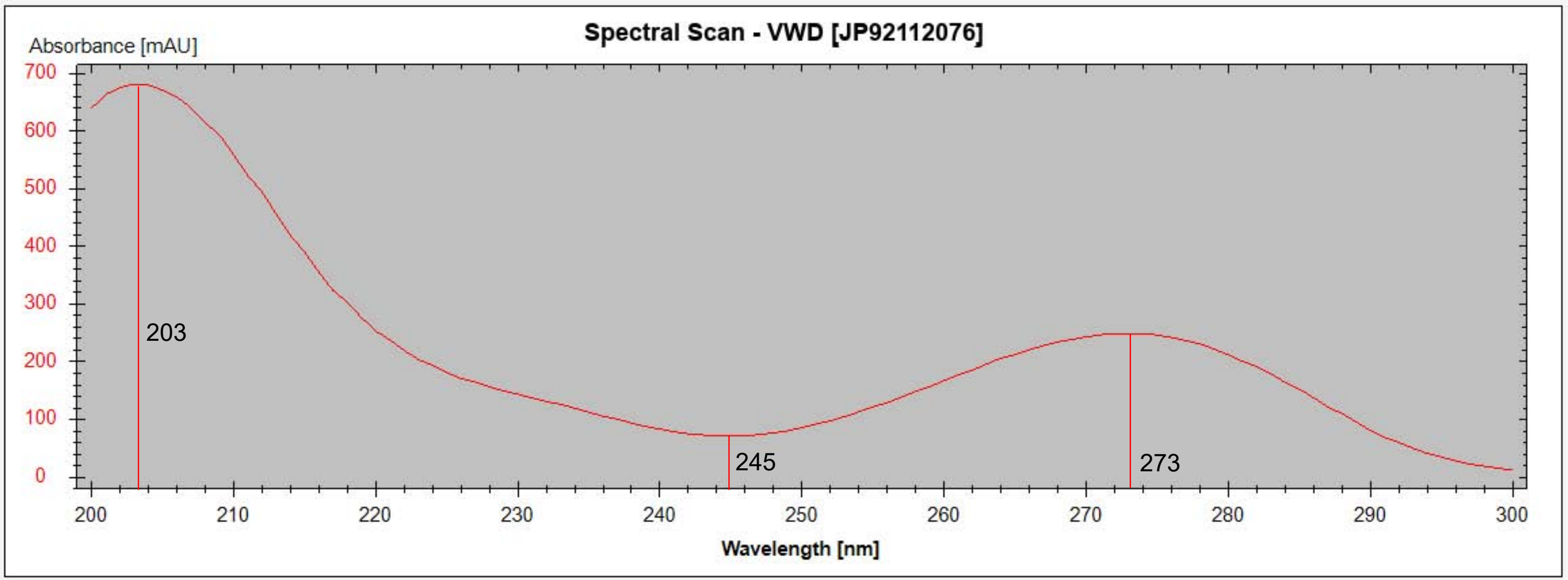
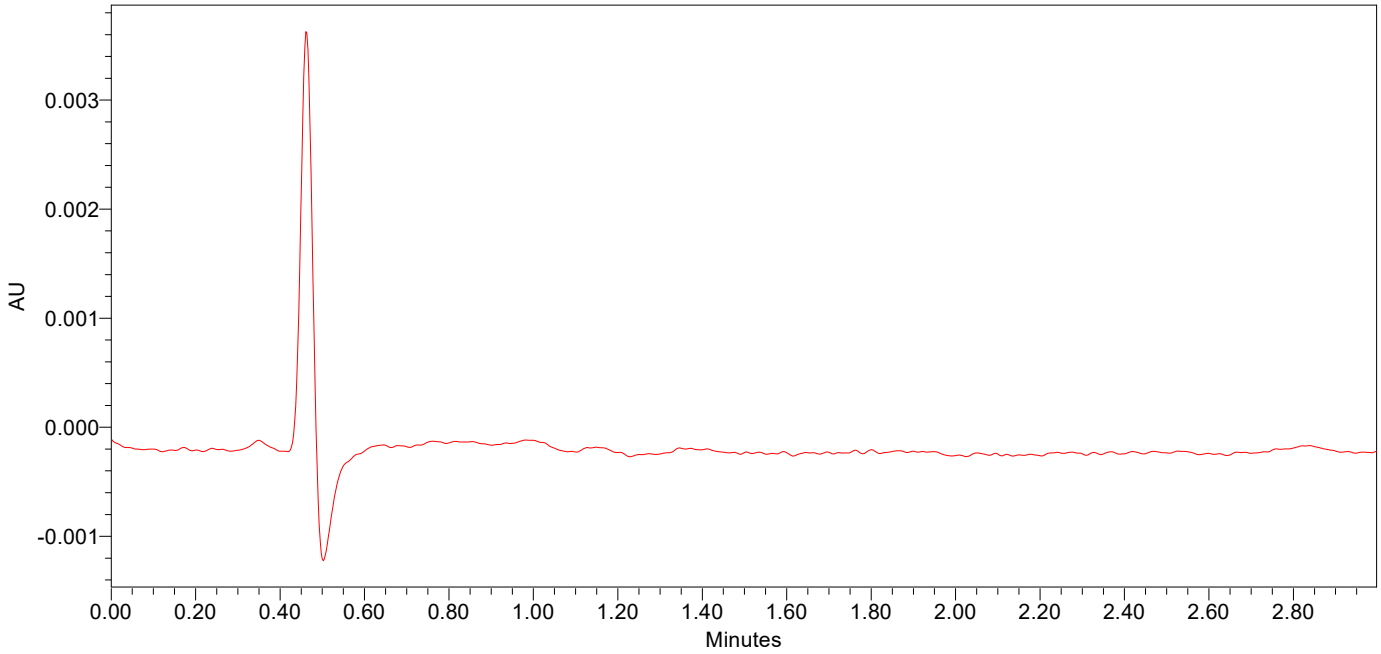

Spectral Scan - VWD [JP92112076]
Absorbance [mAU]
700
600
500
400
300
200
100
0
203
245
273
200
210
220
230
240
250
260
270
280
290
300
Wavelength [nm]

SAMPLE INFORMATION

Sample Name:	Branco 01	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	2	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 2:51:34 PM -03		
Date Processed:	10/16/2026 10:28:04 AM -03		

Auto-Scaled Chromatogram



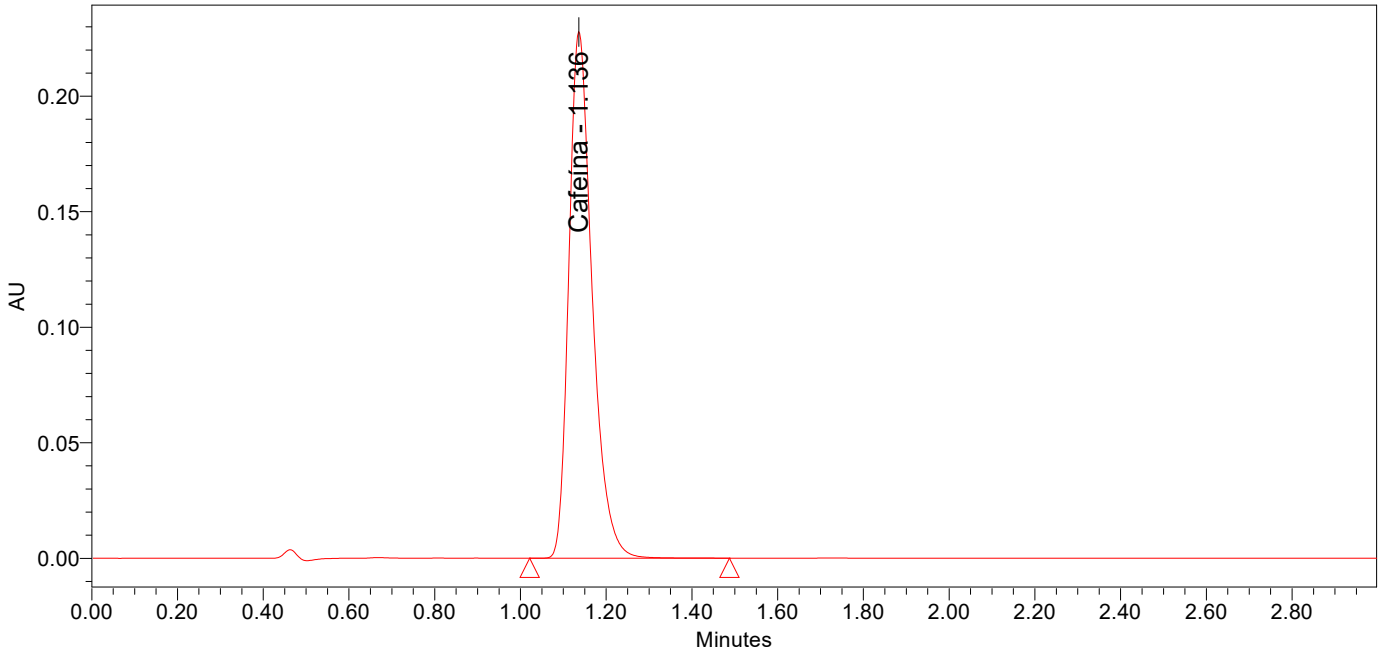
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.136				

SAMPLE INFORMATION

Sample Name:	PCIN 01	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	3	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 2:55:36 PM -03		
Date Processed:	10/16/2026 10:28:04 AM -03		

Auto-Scaled Chromatogram



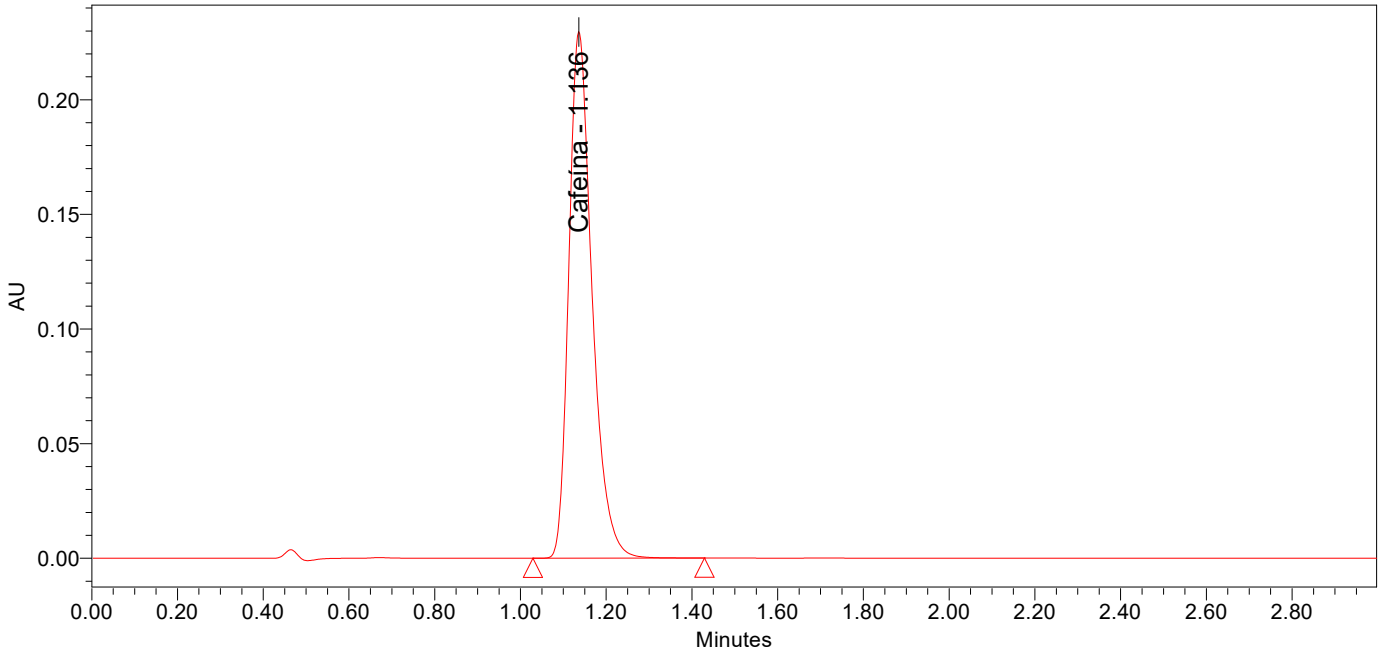
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.136	861882	227968		

SAMPLE INFORMATION

Sample Name:	PCIN 02	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	3	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 2:59:36 PM -03		
Date Processed:	10/16/2026 10:28:04 AM -03		

Auto-Scaled Chromatogram



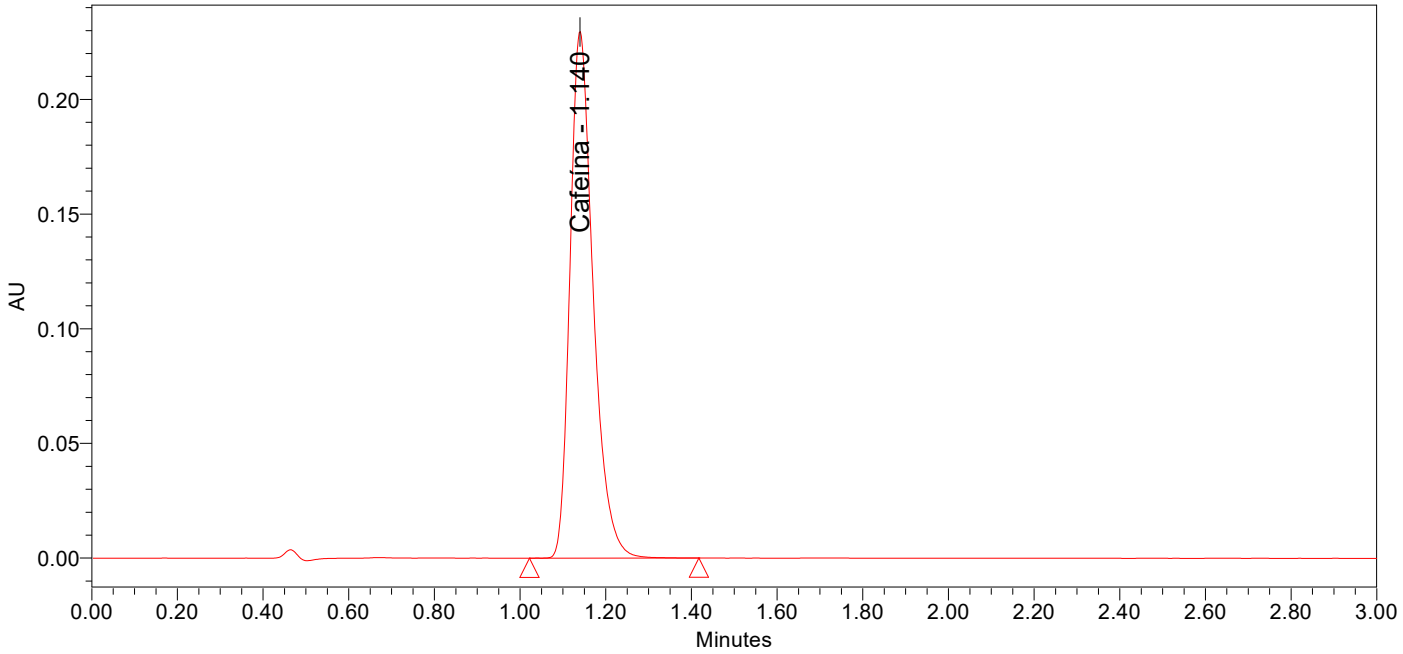
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.136	863520	229729		

SAMPLE INFORMATION

Sample Name:	PCIN 03	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	3	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:03:36 PM -03		
Date Processed:	10/16/2026 10:28:05 AM -03		

Auto-Scaled Chromatogram



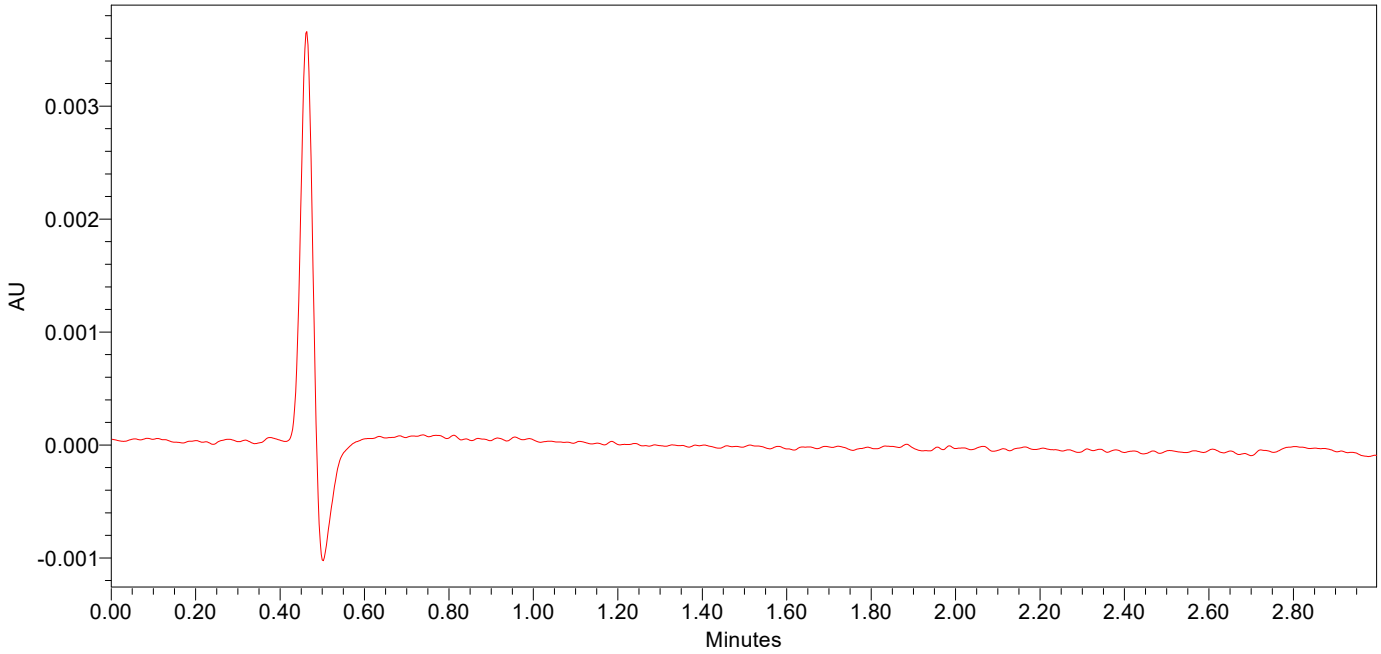
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.140	863123	229641		

SAMPLE INFORMATION

Sample Name:	Branco 02	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	2	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:07:40 PM -03		
Date Processed:	10/16/2026 10:28:05 AM -03		

Auto-Scaled Chromatogram



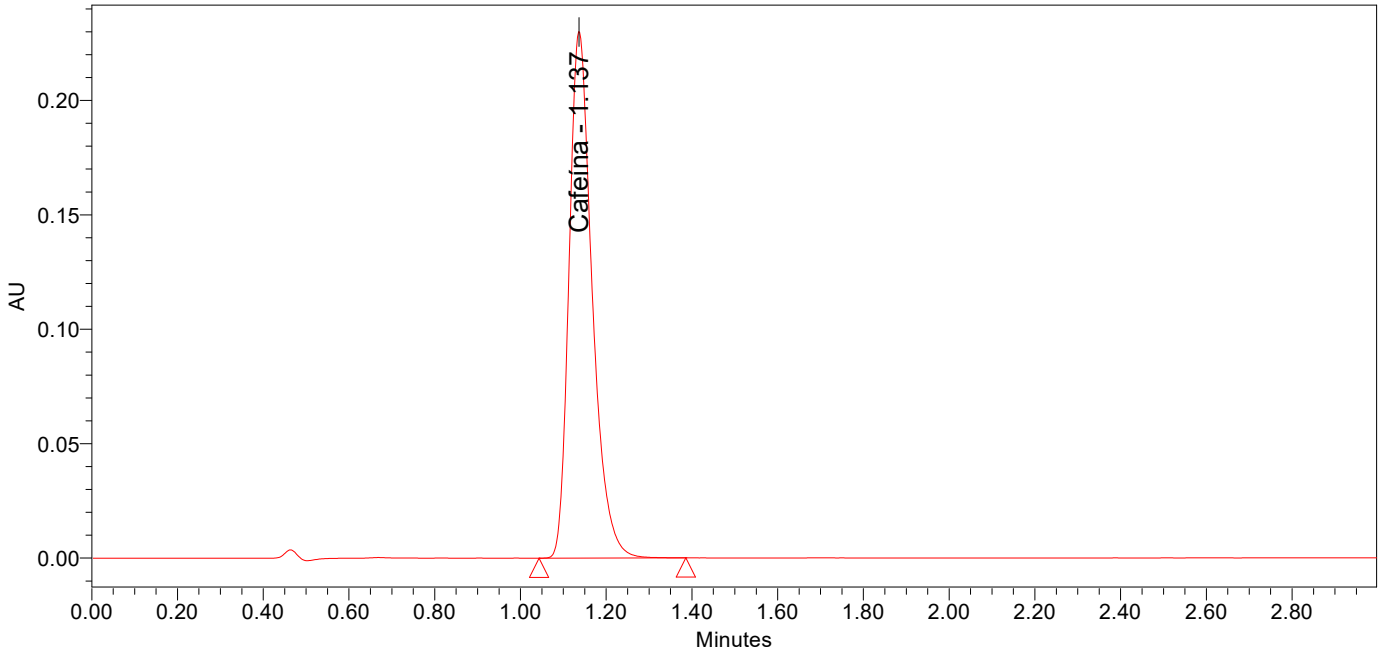
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.136				

SAMPLE INFORMATION

Sample Name:	PCIN 04	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	3	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:11:41 PM -03		
Date Processed:	10/16/2026 10:28:05 AM -03		

Auto-Scaled Chromatogram



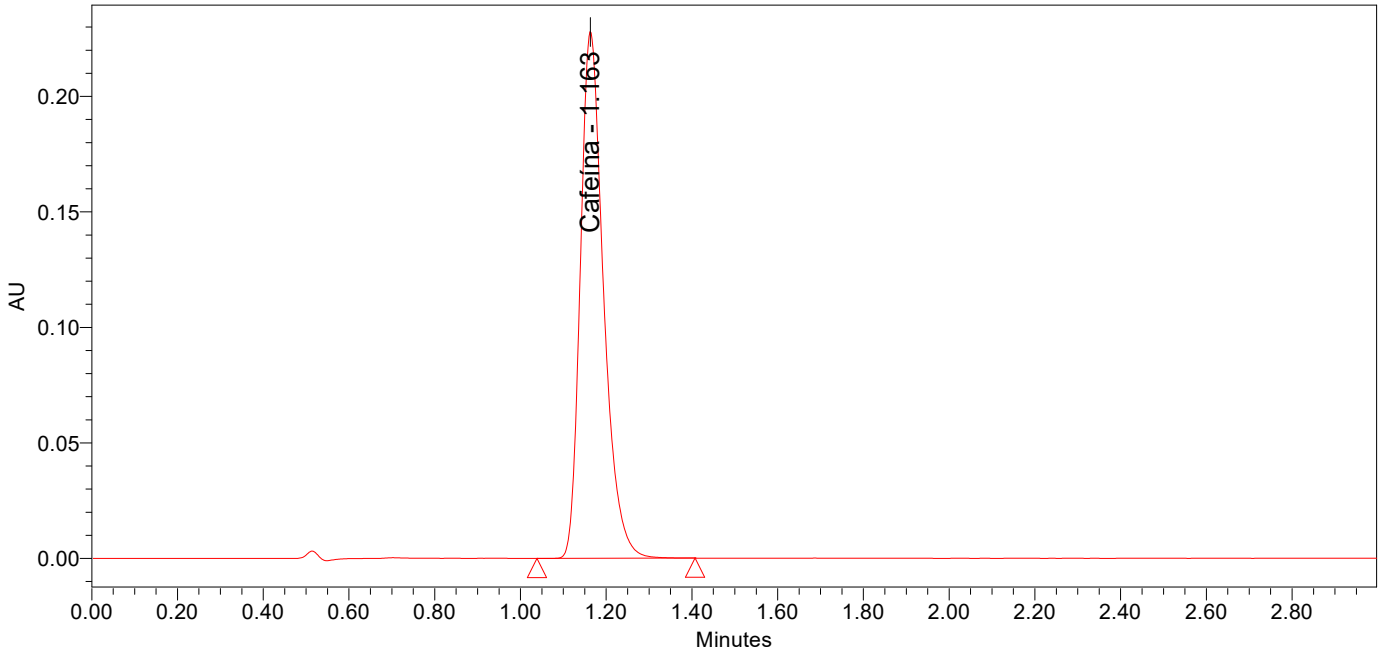
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.137	862836	230243		

SAMPLE INFORMATION

Sample Name:	PCIN 05	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	3	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:15:41 PM -03		
Date Processed:	10/16/2026 10:28:05 AM -03		

Auto-Scaled Chromatogram



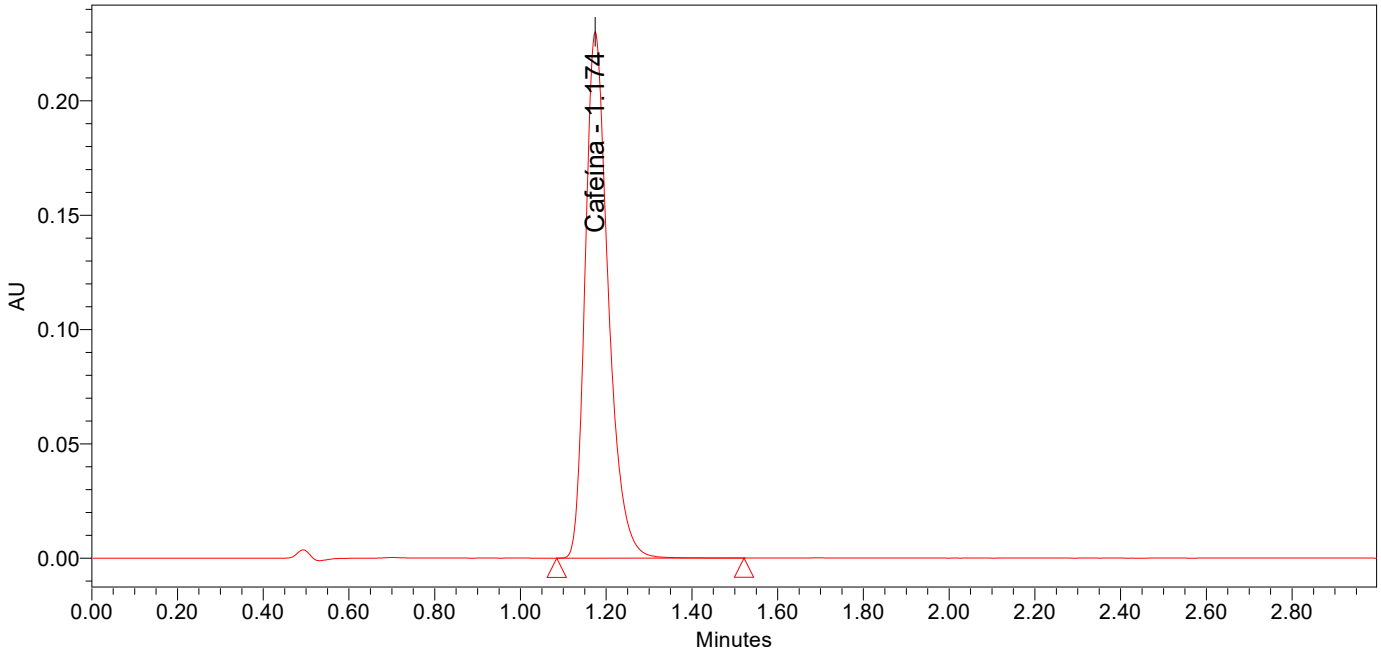
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.163	855174	228069		

SAMPLE INFORMATION

Sample Name:	PCIN 06	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	3	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:19:43 PM -03		
Date Processed:	10/16/2026 10:28:05 AM -03		

Auto-Scaled Chromatogram



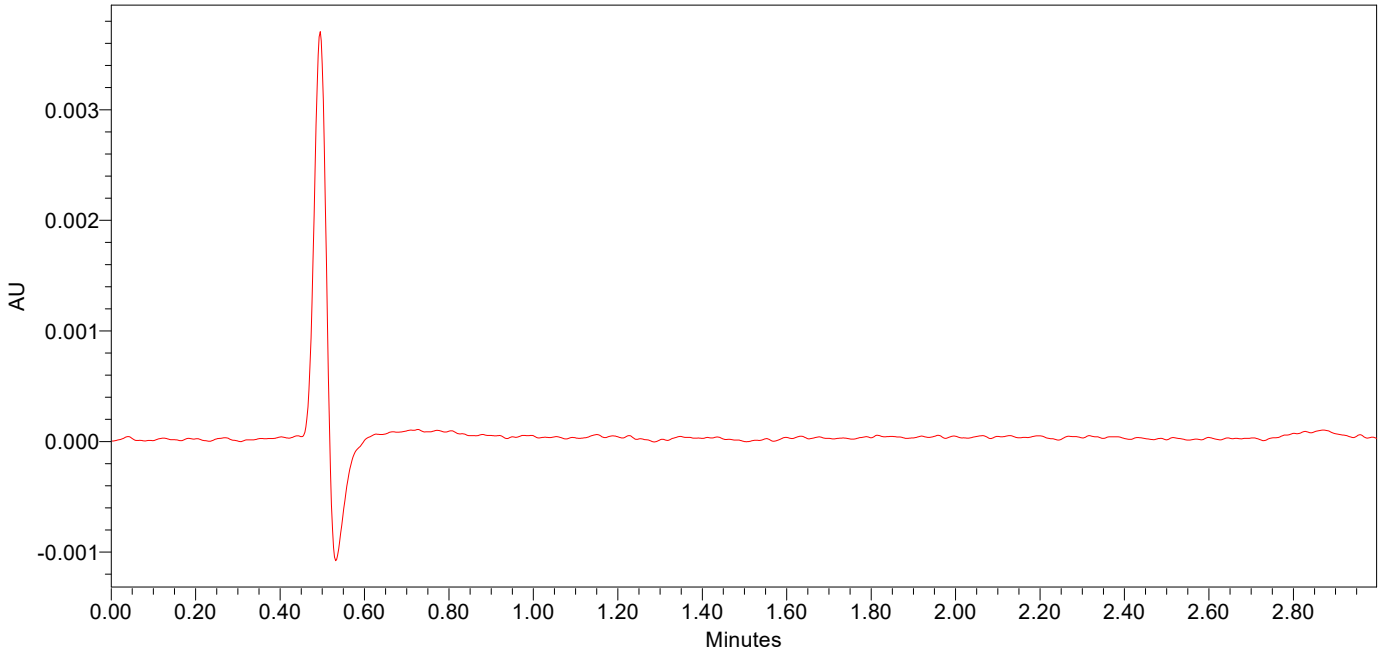
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.174	860274	230213		

SAMPLE INFORMATION

Sample Name:	Branco 03	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	2	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:23:44 PM -03		
Date Processed:	10/16/2026 10:28:06 AM -03		

Auto-Scaled Chromatogram



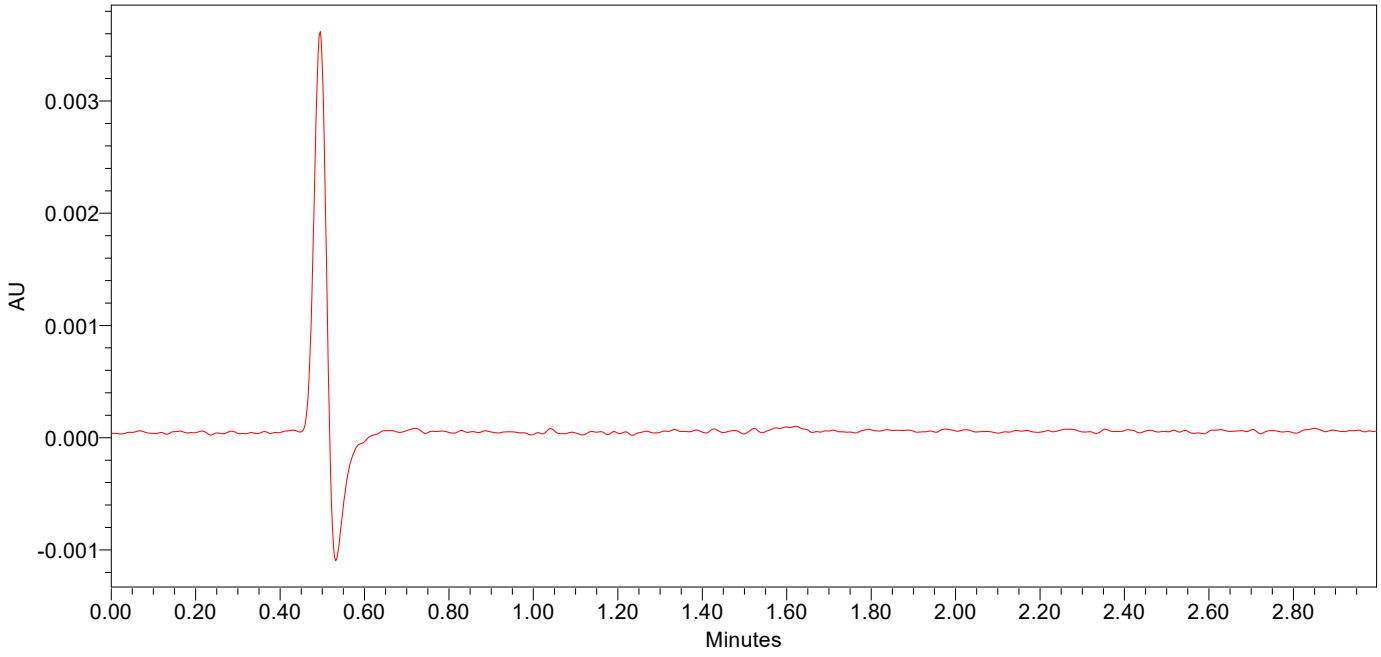
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.136				

SAMPLE INFORMATION

Sample Name:	LDUV 01	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	4	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:27:45 PM -03		
Date Processed:	10/16/2026 10:28:06 AM -03		

Auto-Scaled Chromatogram



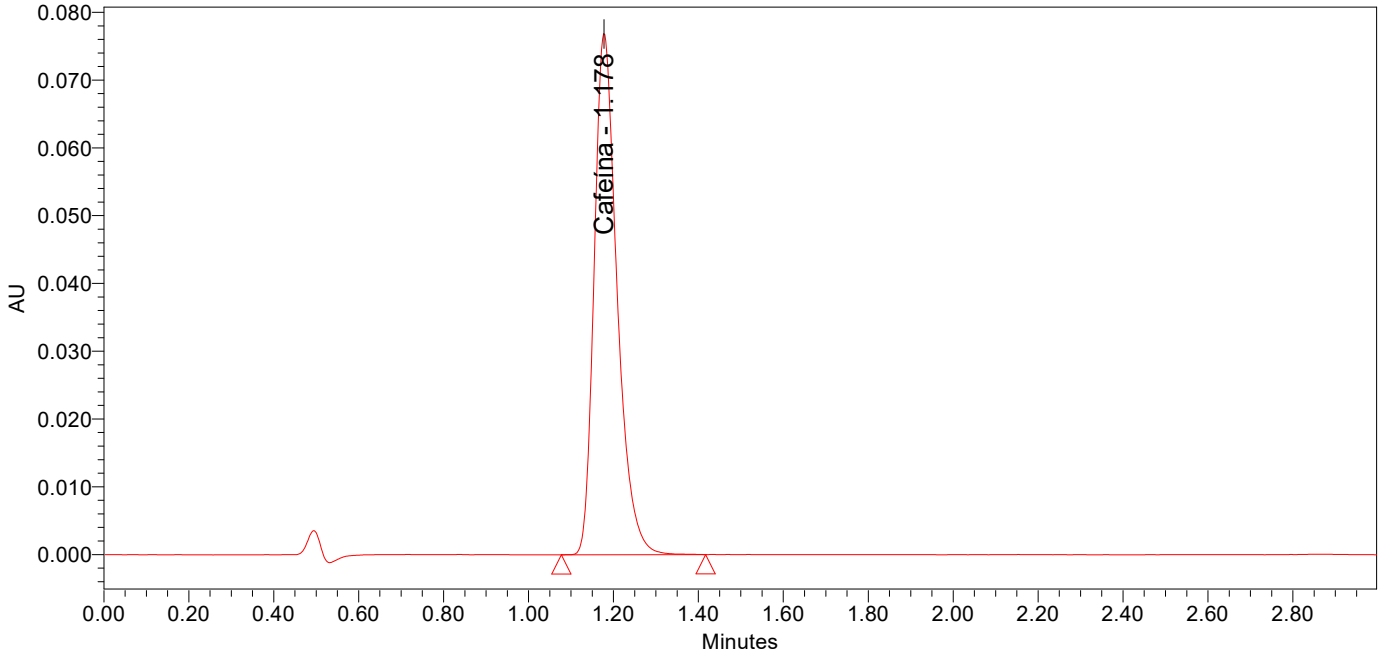
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.136				

SAMPLE INFORMATION

Sample Name:	LDUV 02	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	5	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:31:50 PM -03		
Date Processed:	10/16/2026 10:28:06 AM -03		

Auto-Scaled Chromatogram



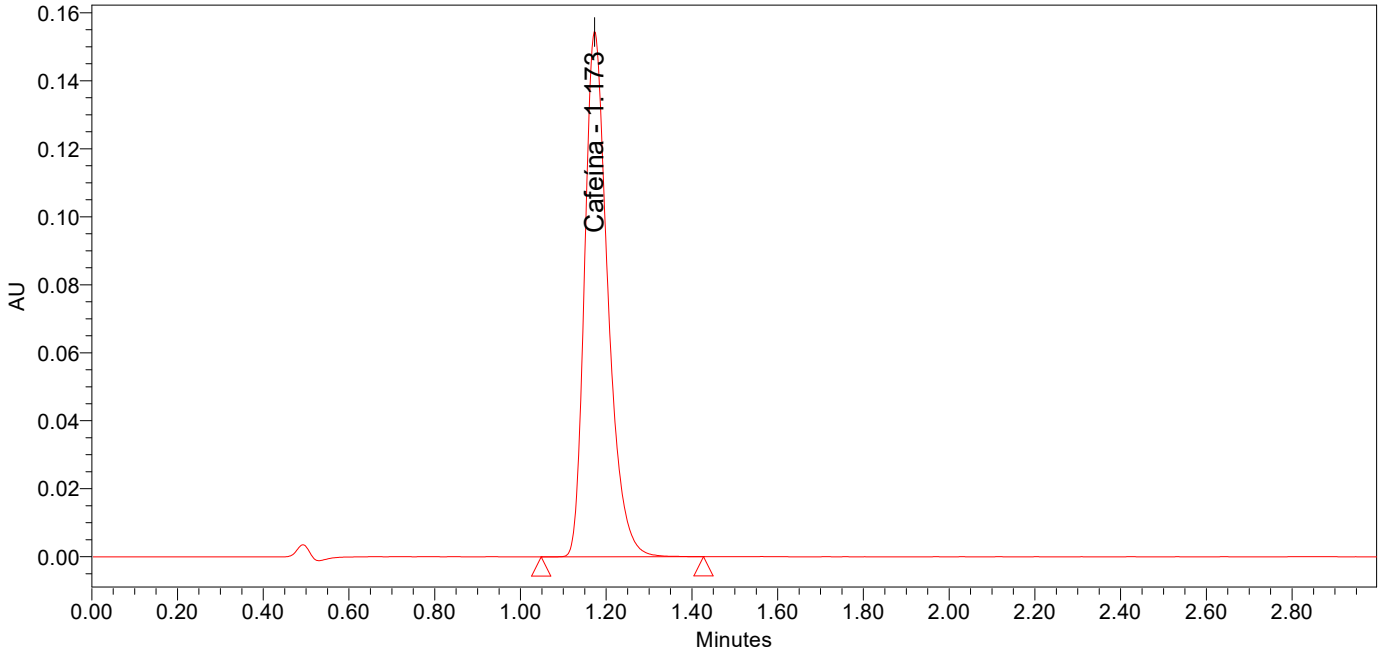
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.178	288226	76943		

SAMPLE INFORMATION

Sample Name:	LDUV 03	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	6	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:35:49 PM -03		
Date Processed:	10/16/2026 10:28:06 AM -03		

Auto-Scaled Chromatogram



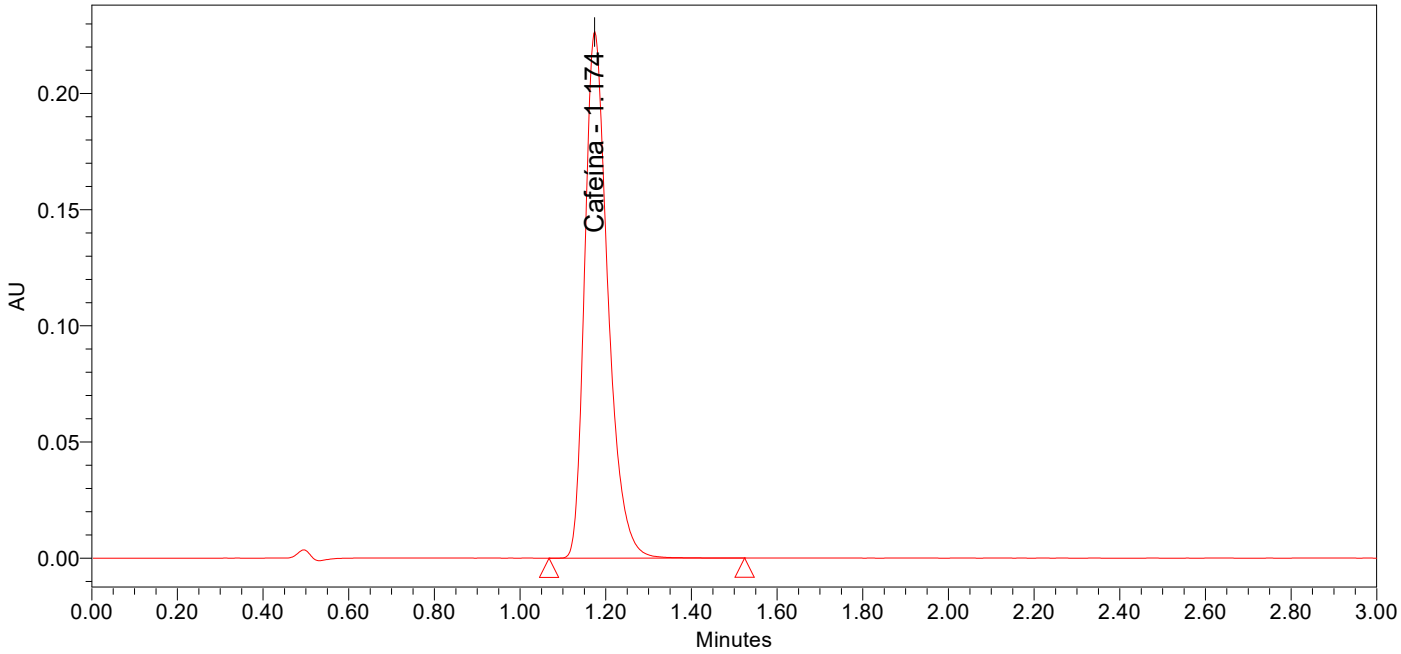
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.173	580530	154577		

SAMPLE INFORMATION

Sample Name:	LDUV 04	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	7	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:39:50 PM -03		
Date Processed:	10/16/2026 10:28:06 AM -03		

Auto-Scaled Chromatogram



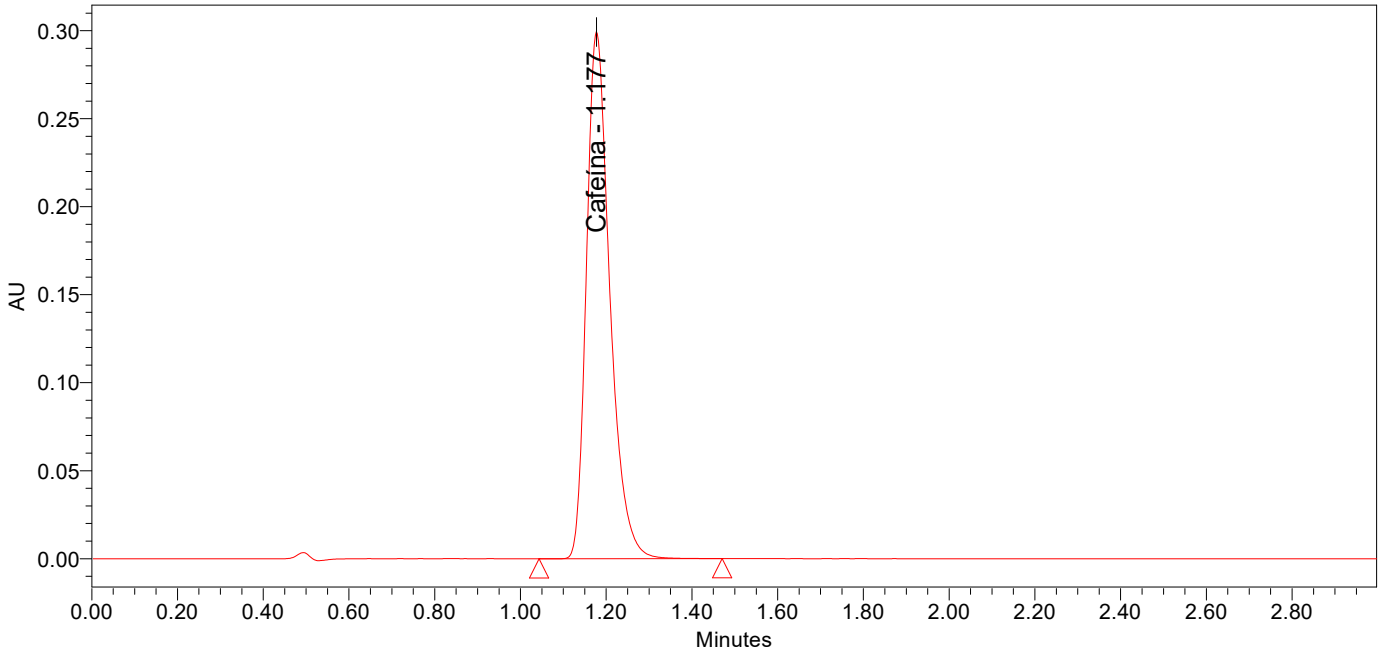
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.174	855927	226679		

SAMPLE INFORMATION

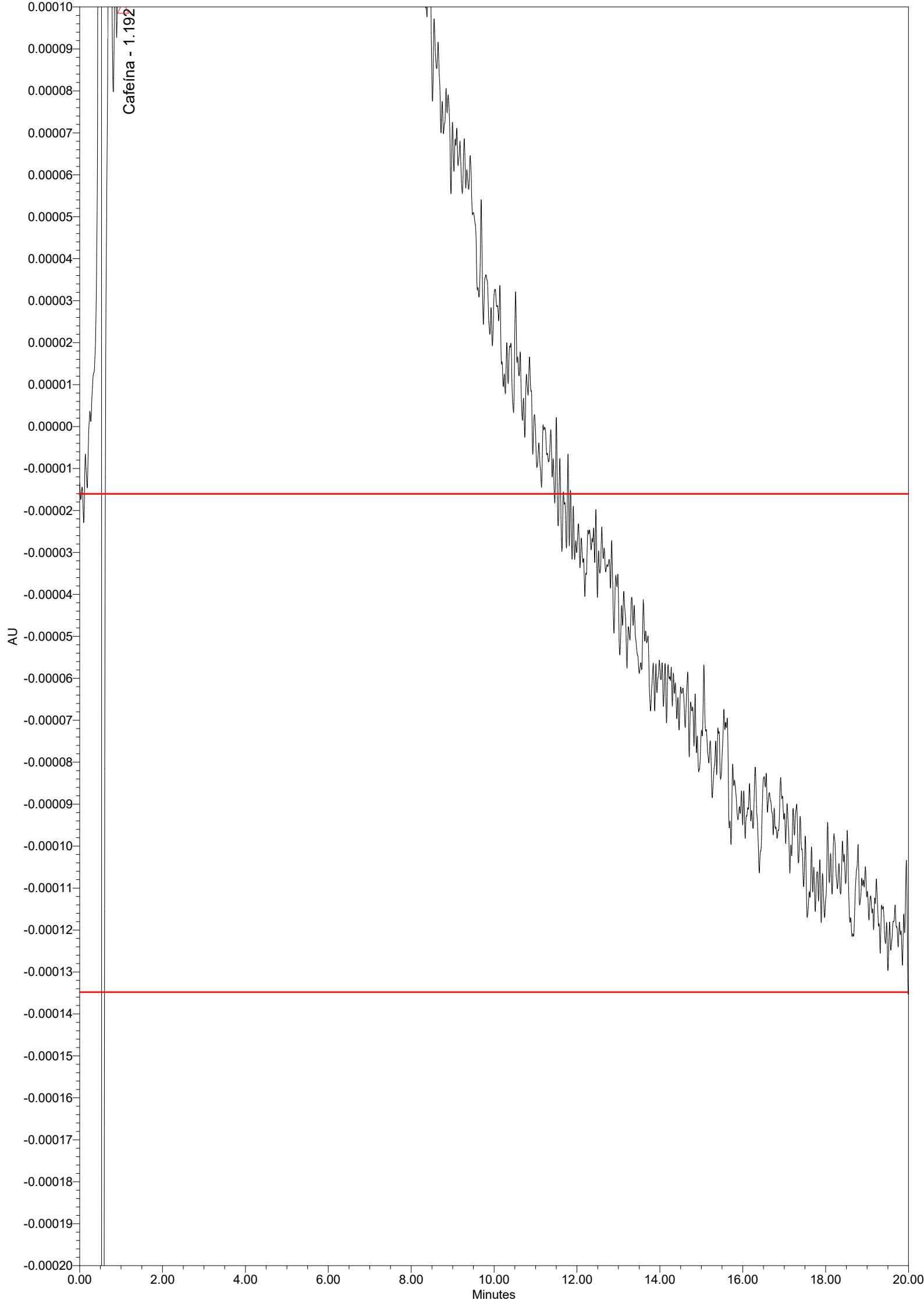
Sample Name:	LDUV 05	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	8	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 3:43:52 PM -03		
Date Processed:	10/16/2026 10:28:07 AM -03		

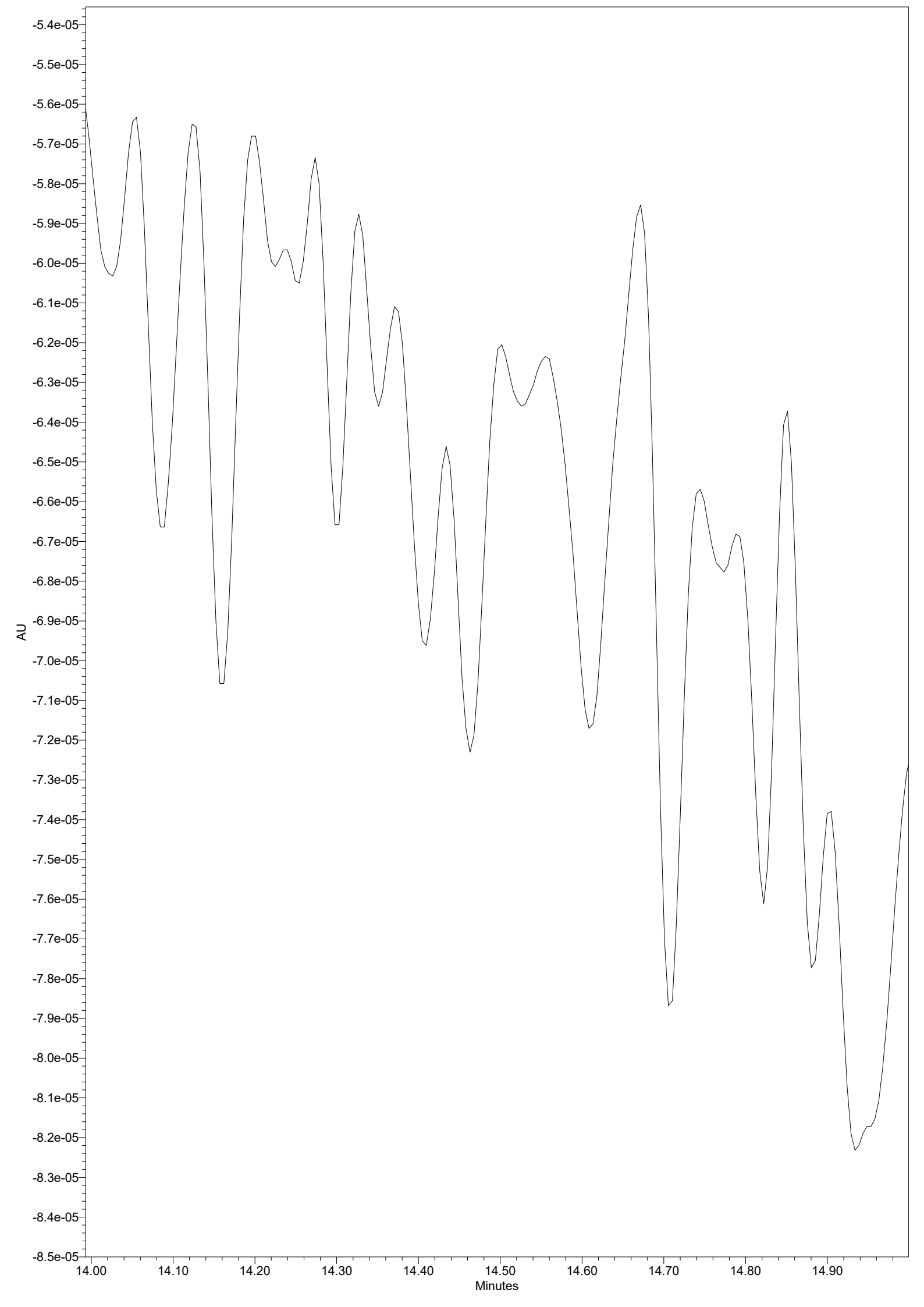
Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.177	1134152	299522		

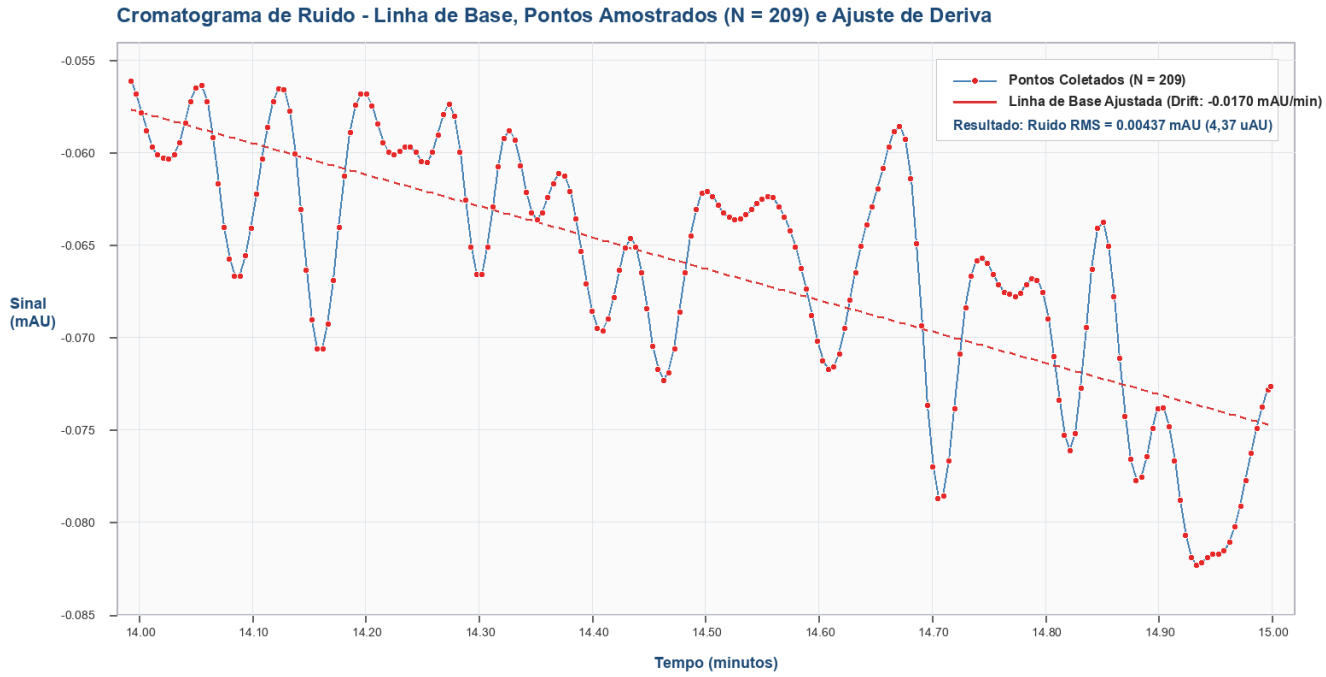

Cafeína - 1.192
AU
Minutes
0.00010
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0.00000
-0.00001
-0.00002
-0.00003
-0.00004
-0.00005
-0.00006
-0.00007
-0.00008
-0.00009
-0.00010
-0.00011
-0.00012
-0.00013
-0.00014
-0.00015
-0.00016
-0.00017
-0.00018
-0.00019
-0.00020
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00


-5.4e-05
-5.5e-05
-5.6e-05
-5.7e-05
-5.8e-05
-5.9e-05
-6.0e-05
-6.1e-05
-6.2e-05
-6.3e-05
-6.4e-05
-6.5e-05
-6.6e-05
-6.7e-05
-6.8e-05
-6.9e-05
-7.0e-05
-7.1e-05
-7.2e-05
-7.3e-05
-7.4e-05
-7.5e-05
-7.6e-05
-7.7e-05
-7.8e-05
-7.9e-05
-8.0e-05
-8.1e-05
-8.2e-05
-8.3e-05
-8.4e-05
-8.5e-05
AU
14.00
14.10
14.20
14.30
14.40
14.50
14.60
14.70
14.80
14.90
Minutes

Demonstrativo de Calculo do Ruido RMS

Avaliacao de Linha de Base e Ruido - Detector UV/Vis (VWD)

Arquivo Fonte: D:\Atendimentos\Chiesi\2026\HPL-002\Resultados\Noise.pdf
Janela de Tempo: 14.00 a 15.00 min (Delta t = 1.00 min) | Pontos Amostrados: N = 209 pontos
Norma: ASTM E1657 / Farmacopeia - Determinacao de Ruido RMS com Inclinacao Linear Subtraida



1. PARAMETROS E RESULTADOS DE RUIDO RMS

Parametro Avaliado	Valor em AU	Valor em mAU	Valor em uAU
RUIDO RMS (Detrended / Sem Deriva) [RESULTADO]	4.365231e-06 AU	0.00437 mAU	4.365 uAU
Deriva Linear da Linha de Base (Drift)	-1.698116e-05 AU/min	-0.0170 mAU/min	-16.98 uAU/min
Desvio Padrao dos Residuos (s)	4.375711e-06 AU	0.00438 mAU	4.376 uAU
Somatorio dos Residuos Quadrados (Sigma r_i^2)	3.982545e-09 AU2	3.98254e-03 mAU2	-
Numero de Pontos Vetoriais Analisados (N)	209 pontos	209 pontos	209 pontos

2. MEMORIA DE CALCULO E FORMULA MATEMATICA ESTRUTURADA

1. Ajuste da Linha de Base / Deriva (Regressao Linear):

$$y_{est}(t) = a \cdot t + b$$

onde: a = -0,01698 mAU/min (taxa de deriva / drift), b = 0,17995 mAU

2. Residuo Puro do Ruido (Eliminacao da Deriva Linear):

$$r_i = y_i - y_{est}(t_i)$$

onde cada ponto coletado (y_i) e corrigido subtraindo a linha de tendencia

3. Calculo do Ruido RMS (Conforme Norma ASTM E1657 / Farmacopeia):

$$\mathbf{RMS} = \sqrt{\frac{1}{N} \cdot \sum_{i=1}^{N} r_i^{\,2}} = \sqrt{\frac{1}{209} \cdot 3{,}9825 \times 10^{-3}\ \mathrm{mAU}^2}$$

RESULTADO FINAL DO RUIDO RMS:

RMS = 0,00437 mAU (4,365 µAU ou $4{,}3652 \times 10^{-6}$ AU)

3. TABELA DOS PONTOS COLETADOS (1 a 42 de 209)

Ponto (i)	Tempo (min)	Sinal (AU)	Sinal (mAU)	Drift (mAU)	Residuo (mAU)	Residuo2 (AU2)
1	13.9930	-5.614051e-05	-0.05614	-0.05767	+0.00153	2.3332e-12
2	13.9970	-5.683712e-05	-0.05684	-0.05774	+0.00090	8.0646e-13
3	14.0019	-5.784852e-05	-0.05785	-0.05782	-0.00003	8.8737e-16
4	14.0067	-5.880054e-05	-0.05880	-0.05790	-0.00090	8.1114e-13
5	14.0116	-5.969375e-05	-0.05969	-0.05798	-0.00171	2.9250e-12
6	14.0164	-6.011241e-05	-0.06011	-0.05806	-0.00205	4.1933e-12
7	14.0213	-6.028942e-05	-0.06029	-0.05815	-0.00214	4.5856e-12
8	14.0261	-6.034852e-05	-0.06035	-0.05823	-0.00212	4.4915e-12
9	14.0310	-6.011241e-05	-0.06011	-0.05831	-0.00180	3.2387e-12
10	14.0358	-5.945794e-05	-0.05946	-0.05839	-0.00106	1.1321e-12
11	14.0407	-5.838480e-05	-0.05838	-0.05848	+0.00009	8.6011e-15
12	14.0455	-5.725285e-05	-0.05725	-0.05856	+0.00131	1.7053e-12
13	14.0504	-5.648048e-05	-0.05648	-0.05864	+0.00216	4.6725e-12
14	14.0552	-5.636257e-05	-0.05636	-0.05872	+0.00236	5.5727e-12
15	14.0601	-5.725285e-05	-0.05725	-0.05881	+0.00155	2.4148e-12
16	14.0649	-5.916011e-05	-0.05916	-0.05889	-0.00027	7.4042e-14
17	14.0698	-6.166010e-05	-0.06166	-0.05897	-0.00269	7.2281e-12
18	14.0746	-6.403926e-05	-0.06404	-0.05905	-0.00499	2.4865e-11
19	14.0795	-6.576687e-05	-0.06577	-0.05914	-0.00663	4.3964e-11
20	14.0843	-6.666008e-05	-0.06666	-0.05922	-0.00744	5.5392e-11
21	14.0892	-6.666008e-05	-0.06666	-0.05930	-0.00736	5.4158e-11
22	14.0940	-6.558724e-05	-0.06559	-0.05938	-0.00621	3.8504e-11
23	14.0989	-6.410129e-05	-0.06410	-0.05947	-0.00464	2.1489e-11
24	14.1037	-6.225577e-05	-0.06226	-0.05955	-0.00271	7.3385e-12
25	14.1086	-6.034852e-05	-0.06035	-0.05963	-0.00072	5.1570e-13
26	14.1135	-5.862354e-05	-0.05862	-0.05971	+0.00109	1.1886e-12
27	14.1183	-5.725285e-05	-0.05725	-0.05979	+0.00254	6.4621e-12
28	14.1232	-5.653928e-05	-0.05654	-0.05988	+0.00334	1.1150e-11
29	14.1280	-5.659838e-05	-0.05660	-0.05996	+0.00336	1.1298e-11
30	14.1329	-5.773033e-05	-0.05773	-0.06004	+0.00231	5.3497e-12
31	14.1377	-6.005068e-05	-0.06005	-0.06012	+0.00007	5.4406e-15
32	14.1426	-6.308724e-05	-0.06309	-0.06021	-0.00288	8.2913e-12
33	14.1474	-6.636225e-05	-0.06636	-0.06029	-0.00607	3.6882e-11
34	14.1523	-6.904217e-05	-0.06904	-0.06037	-0.00867	7.5162e-11
35	14.1571	-7.058986e-05	-0.07059	-0.06045	-0.01014	1.0274e-10
36	14.1620	-7.058986e-05	-0.07059	-0.06054	-0.01005	1.0105e-10
37	14.1668	-6.927798e-05	-0.06928	-0.06062	-0.00866	7.4987e-11
38	14.1717	-6.689882e-05	-0.06690	-0.06070	-0.00620	3.8400e-11
39	14.1765	-6.403926e-05	-0.06404	-0.06078	-0.00326	1.0602e-11
40	14.1814	-6.124173e-05	-0.06124	-0.06087	-0.00038	1.4072e-13
41	14.1862	-5.892137e-05	-0.05892	-0.06095	+0.00203	4.1063e-12
42	14.1911	-5.743278e-05	-0.05743	-0.06103	+0.00360	1.2950e-11

3. TABELA DOS PONTOS COLETADOS (43 a 84 de 209)

Ponto (i)	Tempo (min)	Sinal (AU)	Sinal (mAU)	Drift (mAU)	Residuo (mAU)	Residuo2 (AU2)
43	14.1959	-5.683712e-05	-0.05684	-0.06111	+0.00428	1.8279e-11
44	14.2008	-5.683712e-05	-0.05684	-0.06120	+0.00436	1.9001e-11
45	14.2056	-5.749159e-05	-0.05749	-0.06128	+0.00379	1.4332e-11
46	14.2105	-5.844390e-05	-0.05844	-0.06136	+0.00292	8.5074e-12
47	14.2153	-5.945794e-05	-0.05946	-0.06144	+0.00198	3.9367e-12
48	14.2202	-5.999158e-05	-0.05999	-0.06153	+0.00153	2.3526e-12
49	14.2250	-6.011241e-05	-0.06011	-0.06161	+0.00149	2.2325e-12
50	14.2299	-5.993278e-05	-0.05993	-0.06169	+0.00176	3.0884e-12
51	14.2347	-5.969375e-05	-0.05969	-0.06177	+0.00208	4.3164e-12
52	14.2396	-5.969375e-05	-0.05969	-0.06185	+0.00216	4.6707e-12
53	14.2444	-5.999158e-05	-0.05999	-0.06194	+0.00194	3.7812e-12
54	14.2493	-6.046905e-05	-0.06047	-0.06202	+0.00155	2.4037e-12
55	14.2541	-6.052815e-05	-0.06053	-0.06210	+0.00157	2.4727e-12
56	14.2590	-5.999158e-05	-0.05999	-0.06218	+0.00219	4.8076e-12
57	14.2639	-5.903927e-05	-0.05904	-0.06227	+0.00323	1.0423e-11
58	14.2687	-5.791025e-05	-0.05791	-0.06235	+0.00444	1.9702e-11
59	14.2736	-5.737369e-05	-0.05737	-0.06243	+0.00506	2.5590e-11
60	14.2784	-5.802816e-05	-0.05803	-0.06251	+0.00449	2.0118e-11
61	14.2833	-5.999158e-05	-0.05999	-0.06260	+0.00261	6.7886e-12
62	14.2881	-6.255331e-05	-0.06255	-0.06268	+0.00012	1.5613e-14
63	14.2930	-6.511240e-05	-0.06511	-0.06276	-0.00235	5.5251e-12
64	14.2978	-6.660128e-05	-0.06660	-0.06284	-0.00376	1.4124e-11
65	14.3027	-6.660128e-05	-0.06660	-0.06293	-0.00367	1.3505e-11
66	14.3075	-6.511240e-05	-0.06511	-0.06301	-0.00210	4.4294e-12
67	14.3124	-6.291024e-05	-0.06291	-0.06309	+0.00018	3.2722e-14
68	14.3172	-6.076689e-05	-0.06077	-0.06317	+0.00241	5.7860e-12
69	14.3221	-5.921920e-05	-0.05922	-0.06326	+0.00404	1.6295e-11
70	14.3269	-5.880054e-05	-0.05880	-0.06334	+0.00454	2.0580e-11
71	14.3318	-5.933711e-05	-0.05934	-0.06342	+0.00408	1.6675e-11
72	14.3366	-6.070779e-05	-0.06071	-0.06350	+0.00279	7.8067e-12
73	14.3415	-6.213494e-05	-0.06213	-0.06359	+0.00145	2.1032e-12
74	14.3463	-6.326688e-05	-0.06327	-0.06367	+0.00040	1.5958e-13
75	14.3512	-6.362352e-05	-0.06362	-0.06375	+0.00013	1.5982e-14
76	14.3560	-6.326688e-05	-0.06327	-0.06383	+0.00056	3.1836e-13
77	14.3609	-6.243277e-05	-0.06243	-0.06391	+0.00148	2.1961e-12
78	14.3657	-6.166010e-05	-0.06166	-0.06400	+0.00234	5.4559e-12
79	14.3706	-6.112353e-05	-0.06112	-0.06408	+0.00296	8.7361e-12
80	14.3754	-6.124173e-05	-0.06124	-0.06416	+0.00292	8.5201e-12
81	14.3803	-6.207584e-05	-0.06208	-0.06424	+0.00217	4.7009e-12
82	14.3851	-6.356471e-05	-0.06356	-0.06433	+0.00076	5.7828e-13
83	14.3900	-6.535114e-05	-0.06535	-0.06441	-0.00094	8.8809e-13
84	14.3948	-6.707582e-05	-0.06708	-0.06449	-0.00259	6.6869e-12

3. TABELA DOS PONTOS COLETADOS (85 a 126 de 209)

Ponto (i)	Tempo (min)	Sinal (AU)	Sinal (mAU)	Drift (mAU)	Residuo (mAU)	Residuo2 (AU2)
85	14.3997	-6.856470e-05	-0.06856	-0.06457	-0.00399	1.5930e-11
86	14.4045	-6.951672e-05	-0.06952	-0.06465	-0.00486	2.3639e-11
87	14.4094	-6.963755e-05	-0.06964	-0.06474	-0.00490	2.4005e-11
88	14.4143	-6.898044e-05	-0.06898	-0.06482	-0.00416	1.7296e-11
89	14.4191	-6.785113e-05	-0.06785	-0.06490	-0.00295	8.6927e-12
90	14.4240	-6.636225e-05	-0.06636	-0.06499	-0.00138	1.8930e-12
91	14.4288	-6.517150e-05	-0.06517	-0.06507	-0.00010	1.0804e-14
92	14.4337	-6.463493e-05	-0.06463	-0.06515	+0.00052	2.6623e-13
93	14.4385	-6.511240e-05	-0.06511	-0.06523	+0.00012	1.4323e-14
94	14.4434	-6.648045e-05	-0.06648	-0.06532	-0.00116	1.3567e-12
95	14.4482	-6.844650e-05	-0.06845	-0.06540	-0.00305	9.3004e-12
96	14.4531	-7.046903e-05	-0.07047	-0.06548	-0.00499	2.4886e-11
97	14.4579	-7.171917e-05	-0.07172	-0.06556	-0.00616	3.7916e-11
98	14.4628	-7.231455e-05	-0.07231	-0.06565	-0.00667	4.4480e-11
99	14.4676	-7.189881e-05	-0.07190	-0.06573	-0.00617	3.8099e-11
100	14.4725	-7.058986e-05	-0.07059	-0.06581	-0.00478	2.2850e-11
101	14.4773	-6.862351e-05	-0.06862	-0.06589	-0.00273	7.4672e-12
102	14.4822	-6.648045e-05	-0.06648	-0.06597	-0.00051	2.5601e-13
103	14.4870	-6.451702e-05	-0.06452	-0.06606	+0.00154	2.3674e-12
104	14.4919	-6.308724e-05	-0.06309	-0.06614	+0.00305	9.3147e-12
105	14.4967	-6.219374e-05	-0.06219	-0.06622	+0.00403	1.6214e-11
106	14.5016	-6.207584e-05	-0.06208	-0.06630	+0.00423	1.7875e-11
107	14.5064	-6.237367e-05	-0.06237	-0.06638	+0.00401	1.6090e-11
108	14.5113	-6.285114e-05	-0.06285	-0.06647	+0.00362	1.3085e-11
109	14.5161	-6.326688e-05	-0.06327	-0.06655	+0.00328	1.0777e-11
110	14.5210	-6.350562e-05	-0.06351	-0.06663	+0.00313	9.7823e-12
111	14.5258	-6.362352e-05	-0.06362	-0.06671	+0.00309	9.5539e-12
112	14.5307	-6.356471e-05	-0.06356	-0.06680	+0.00323	1.0453e-11
113	14.5355	-6.332598e-05	-0.06333	-0.06688	+0.00355	1.2626e-11
114	14.5404	-6.308724e-05	-0.06309	-0.06696	+0.00388	1.5018e-11
115	14.5452	-6.273031e-05	-0.06273	-0.06704	+0.00431	1.8606e-11
116	14.5501	-6.249158e-05	-0.06249	-0.06713	+0.00464	2.1490e-11
117	14.5549	-6.237367e-05	-0.06237	-0.06721	+0.00483	2.3376e-11
118	14.5598	-6.243277e-05	-0.06243	-0.06729	+0.00486	2.3613e-11
119	14.5646	-6.291024e-05	-0.06291	-0.06737	+0.00446	1.9919e-11
120	14.5695	-6.350562e-05	-0.06351	-0.06746	+0.00395	1.5610e-11
121	14.5744	-6.421919e-05	-0.06422	-0.06754	+0.00332	1.1029e-11
122	14.5792	-6.511240e-05	-0.06511	-0.06762	+0.00251	6.2950e-12
123	14.5841	-6.624435e-05	-0.06624	-0.06770	+0.00146	2.1334e-12
124	14.5889	-6.737366e-05	-0.06737	-0.06779	+0.00041	1.7014e-13
125	14.5938	-6.880344e-05	-0.06880	-0.06787	-0.00093	8.7227e-13
126	14.5986	-7.017148e-05	-0.07017	-0.06795	-0.00222	4.9321e-12

3. TABELA DOS PONTOS COLETADOS (127 a 168 de 209)

Ponto (i)	Tempo (min)	Sinal (AU)	Sinal (mAU)	Drift (mAU)	Residuo (mAU)	Residuo2 (AU2)
127	14.6035	-7.124433e-05	-0.07124	-0.06803	-0.00321	1.0305e-11
128	14.6083	-7.171917e-05	-0.07172	-0.06812	-0.00360	1.2987e-11
129	14.6132	-7.160097e-05	-0.07160	-0.06820	-0.00340	1.1573e-11
130	14.6180	-7.088769e-05	-0.07089	-0.06828	-0.00261	6.7991e-12
131	14.6229	-6.951672e-05	-0.06952	-0.06836	-0.00115	1.3293e-12
132	14.6277	-6.796903e-05	-0.06797	-0.06844	+0.00048	2.2649e-13
133	14.6326	-6.648045e-05	-0.06648	-0.06853	+0.00205	4.1937e-12
134	14.6374	-6.505330e-05	-0.06505	-0.06861	+0.00356	1.2646e-11
135	14.6423	-6.392136e-05	-0.06392	-0.06869	+0.00477	2.2769e-11
136	14.6471	-6.291024e-05	-0.06291	-0.06877	+0.00586	3.4386e-11
137	14.6520	-6.195793e-05	-0.06196	-0.06886	+0.00690	4.7608e-11
138	14.6568	-6.082599e-05	-0.06083	-0.06894	+0.00811	6.5821e-11
139	14.6617	-5.969375e-05	-0.05969	-0.06902	+0.00933	8.7023e-11
140	14.6665	-5.886256e-05	-0.05886	-0.06910	+0.01024	1.0488e-10
141	14.6714	-5.856473e-05	-0.05856	-0.06919	+0.01062	1.1283e-10
142	14.6762	-5.927801e-05	-0.05928	-0.06927	+0.00999	9.9805e-11
143	14.6811	-6.142136e-05	-0.06142	-0.06935	+0.00793	6.2893e-11
144	14.6859	-6.493247e-05	-0.06493	-0.06943	+0.00450	2.0255e-11
145	14.6908	-6.934001e-05	-0.06934	-0.06952	+0.00018	3.1110e-14
146	14.6956	-7.368552e-05	-0.07369	-0.06960	-0.00409	1.6709e-11
147	14.7005	-7.701670e-05	-0.07702	-0.06968	-0.00734	5.3810e-11
148	14.7053	-7.868521e-05	-0.07869	-0.06976	-0.00892	7.9618e-11
149	14.7102	-7.856467e-05	-0.07856	-0.06985	-0.00872	7.6017e-11
150	14.7150	-7.666006e-05	-0.07666	-0.06993	-0.00673	4.5333e-11
151	14.7199	-7.386223e-05	-0.07386	-0.07001	-0.00385	1.4834e-11
152	14.7248	-7.088769e-05	-0.07089	-0.07009	-0.00079	6.2991e-13
153	14.7296	-6.838477e-05	-0.06838	-0.07018	+0.00179	3.2056e-12
154	14.7345	-6.666008e-05	-0.06666	-0.07026	+0.00360	1.2951e-11
155	14.7393	-6.582597e-05	-0.06583	-0.07034	+0.00451	2.0376e-11
156	14.7442	-6.570778e-05	-0.06571	-0.07042	+0.00472	2.2238e-11
157	14.7490	-6.600561e-05	-0.06601	-0.07050	+0.00450	2.0242e-11
158	14.7539	-6.660128e-05	-0.06660	-0.07059	+0.00399	1.5894e-11
159	14.7587	-6.713492e-05	-0.06713	-0.07067	+0.00353	1.2491e-11
160	14.7636	-6.755329e-05	-0.06755	-0.07075	+0.00320	1.0237e-11
161	14.7684	-6.767149e-05	-0.06767	-0.07083	+0.00316	1.0001e-11
162	14.7733	-6.779203e-05	-0.06779	-0.07092	+0.00313	9.7691e-12
163	14.7781	-6.761239e-05	-0.06761	-0.07100	+0.00339	1.1468e-11
164	14.7830	-6.713492e-05	-0.06713	-0.07108	+0.00395	1.5582e-11
165	14.7878	-6.683709e-05	-0.06684	-0.07116	+0.00433	1.8718e-11
166	14.7927	-6.689882e-05	-0.06690	-0.07125	+0.00435	1.8906e-11
167	14.7975	-6.755329e-05	-0.06755	-0.07133	+0.00377	1.4249e-11
168	14.8024	-6.898044e-05	-0.06898	-0.07141	+0.00243	5.9107e-12

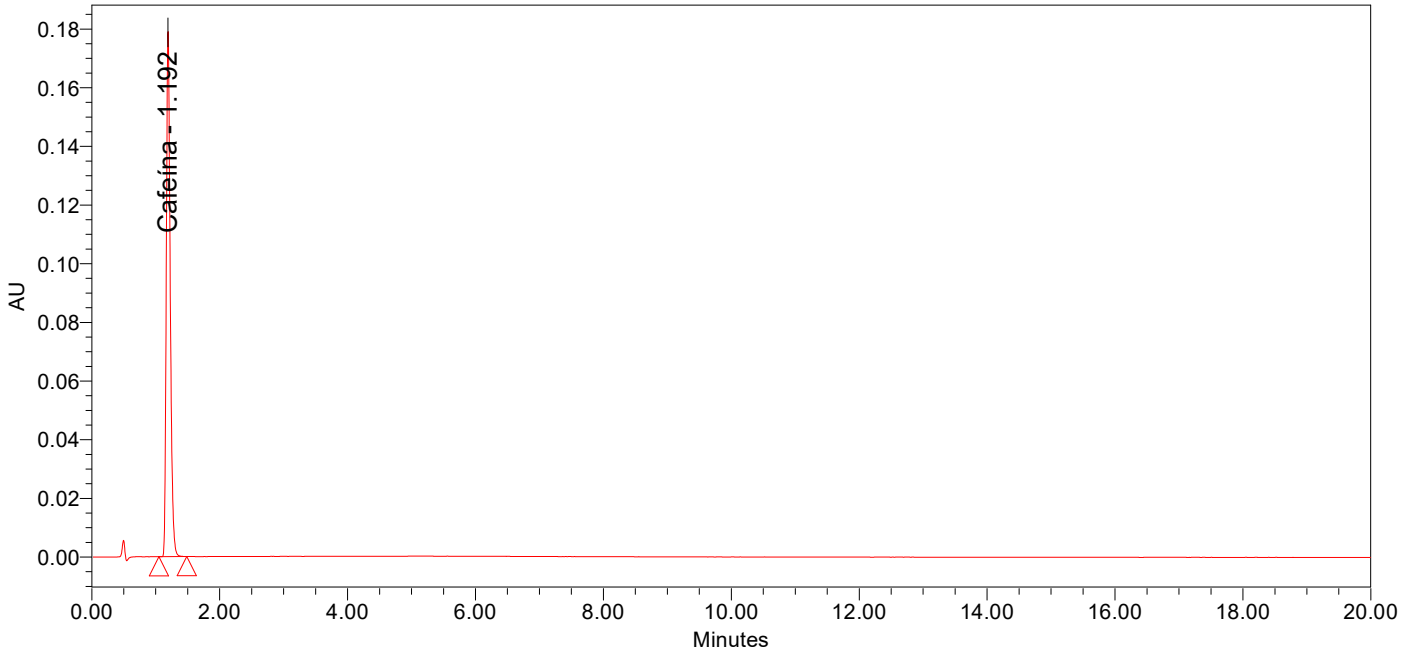
3. TABELA DOS PONTOS COLETADOS (169 a 209 de 209)

Ponto (i)	Tempo (min)	Sinal (AU)	Sinal (mAU)	Drift (mAU)	Residuo (mAU)	Residuo2 (AU2)
169	14.8072	-7.100560e-05	-0.07101	-0.07149	+0.00049	2.3738e-13
170	14.8121	-7.338768e-05	-0.07339	-0.07158	-0.00181	3.2808e-12
171	14.8169	-7.529201e-05	-0.07529	-0.07166	-0.00363	1.3209e-11
172	14.8218	-7.612641e-05	-0.07613	-0.07174	-0.00439	1.9233e-11
173	14.8266	-7.517118e-05	-0.07517	-0.07182	-0.00335	1.1216e-11
174	14.8315	-7.273321e-05	-0.07273	-0.07191	-0.00083	6.8480e-13
175	14.8363	-6.945791e-05	-0.06946	-0.07199	+0.00253	6.3956e-12
176	14.8412	-6.630344e-05	-0.06630	-0.07207	+0.00577	3.3258e-11
177	14.8460	-6.410129e-05	-0.06410	-0.07215	+0.00805	6.4808e-11
178	14.8509	-6.374172e-05	-0.06374	-0.07224	+0.00849	7.2139e-11
179	14.8557	-6.505330e-05	-0.06505	-0.07232	+0.00726	5.2752e-11
180	14.8606	-6.779203e-05	-0.06779	-0.07240	+0.00461	2.1231e-11
181	14.8654	-7.112350e-05	-0.07112	-0.07248	+0.00136	1.8425e-12
182	14.8703	-7.428089e-05	-0.07428	-0.07256	-0.00172	2.9460e-12
183	14.8751	-7.660096e-05	-0.07660	-0.07265	-0.00396	1.5644e-11
184	14.8800	-7.773319e-05	-0.07773	-0.07273	-0.00500	2.5039e-11
185	14.8849	-7.755326e-05	-0.07755	-0.07281	-0.00474	2.2474e-11
186	14.8897	-7.642424e-05	-0.07642	-0.07289	-0.00353	1.2464e-11
187	14.8946	-7.493537e-05	-0.07494	-0.07298	-0.00196	3.8338e-12
188	14.8994	-7.386223e-05	-0.07386	-0.07306	-0.00080	6.4592e-13
189	14.9043	-7.380342e-05	-0.07380	-0.07314	-0.00066	4.3731e-13
190	14.9091	-7.481454e-05	-0.07481	-0.07322	-0.00159	2.5320e-12
191	14.9140	-7.666006e-05	-0.07666	-0.07331	-0.00335	1.1245e-11
192	14.9188	-7.880341e-05	-0.07880	-0.07339	-0.00542	2.9329e-11
193	14.9237	-8.070773e-05	-0.08071	-0.07347	-0.00724	5.2364e-11
194	14.9285	-8.189878e-05	-0.08190	-0.07355	-0.00835	6.9659e-11
195	14.9334	-8.231744e-05	-0.08232	-0.07364	-0.00868	7.5364e-11
196	14.9382	-8.219661e-05	-0.08220	-0.07372	-0.00848	7.1898e-11
197	14.9431	-8.189878e-05	-0.08190	-0.07380	-0.00810	6.5575e-11
198	14.9479	-8.172177e-05	-0.08172	-0.07388	-0.00784	6.1460e-11
199	14.9528	-8.172177e-05	-0.08172	-0.07397	-0.00776	6.0160e-11
200	14.9576	-8.154214e-05	-0.08154	-0.07405	-0.00750	5.6183e-11
201	14.9625	-8.106730e-05	-0.08107	-0.07413	-0.00694	4.8123e-11
202	14.9673	-8.023319e-05	-0.08023	-0.07421	-0.00602	3.6262e-11
203	14.9722	-7.910095e-05	-0.07910	-0.07429	-0.00481	2.3097e-11
204	14.9770	-7.773319e-05	-0.07773	-0.07438	-0.00336	1.1270e-11
205	14.9819	-7.624432e-05	-0.07624	-0.07446	-0.00178	3.1856e-12
206	14.9867	-7.493537e-05	-0.07494	-0.07454	-0.00039	1.5578e-13
207	14.9916	-7.374432e-05	-0.07374	-0.07462	+0.00088	7.7429e-13
208	14.9964	-7.285111e-05	-0.07285	-0.07471	+0.00185	3.4385e-12
209	14.9987	-7.263491e-05	-0.07263	-0.07474	+0.00211	4.4517e-12

SAMPLE INFORMATION

Sample Name:	RELB	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	9	Acq. Method Set:	HPL002 RELB
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	20.00 ul	Channel Name:	VWD.0.0
Run Time:	20.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 250 nm
Date Acquired:	10/15/2026 3:47:56 PM -03		
Date Processed:	10/16/2026 10:28:07 AM -03		

Auto-Scaled Chromatogram



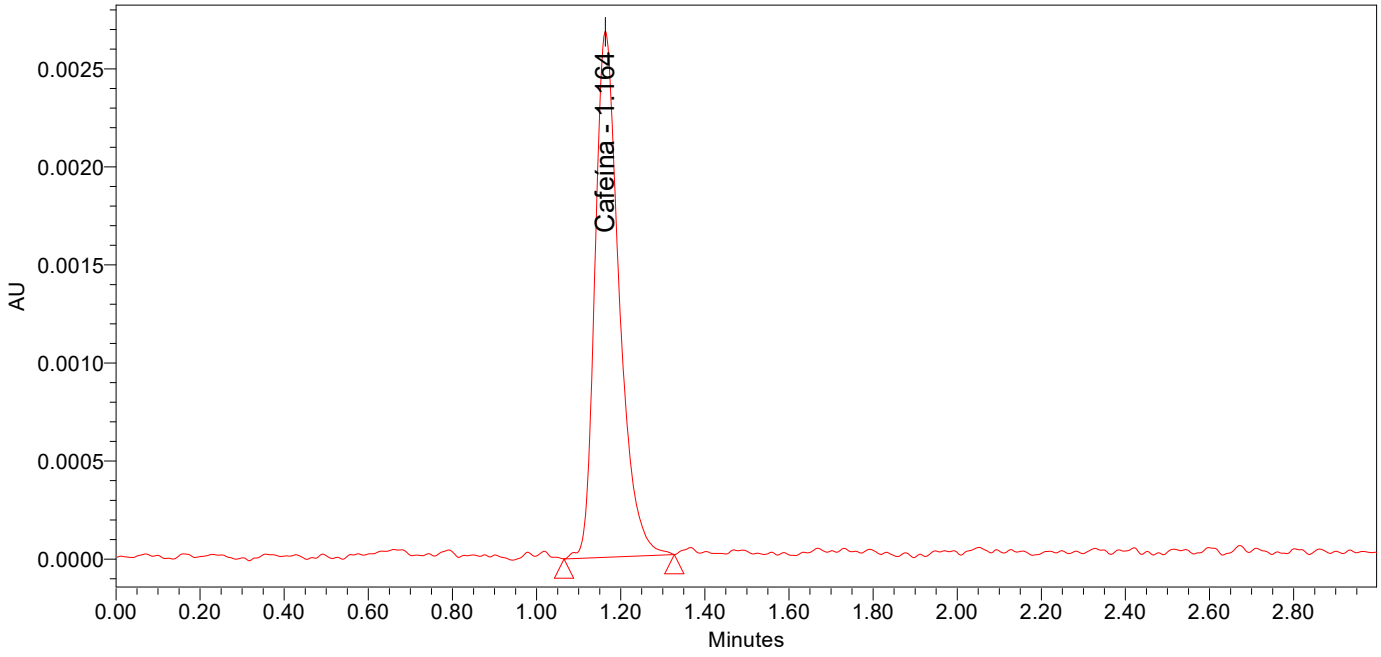
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.192	770788	179195		

SAMPLE INFORMATION

Sample Name:	LIIN 01	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	10	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	0.10 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 4:09:02 PM -03		
Date Processed:	10/16/2026 10:28:07 AM -03		

Auto-Scaled Chromatogram



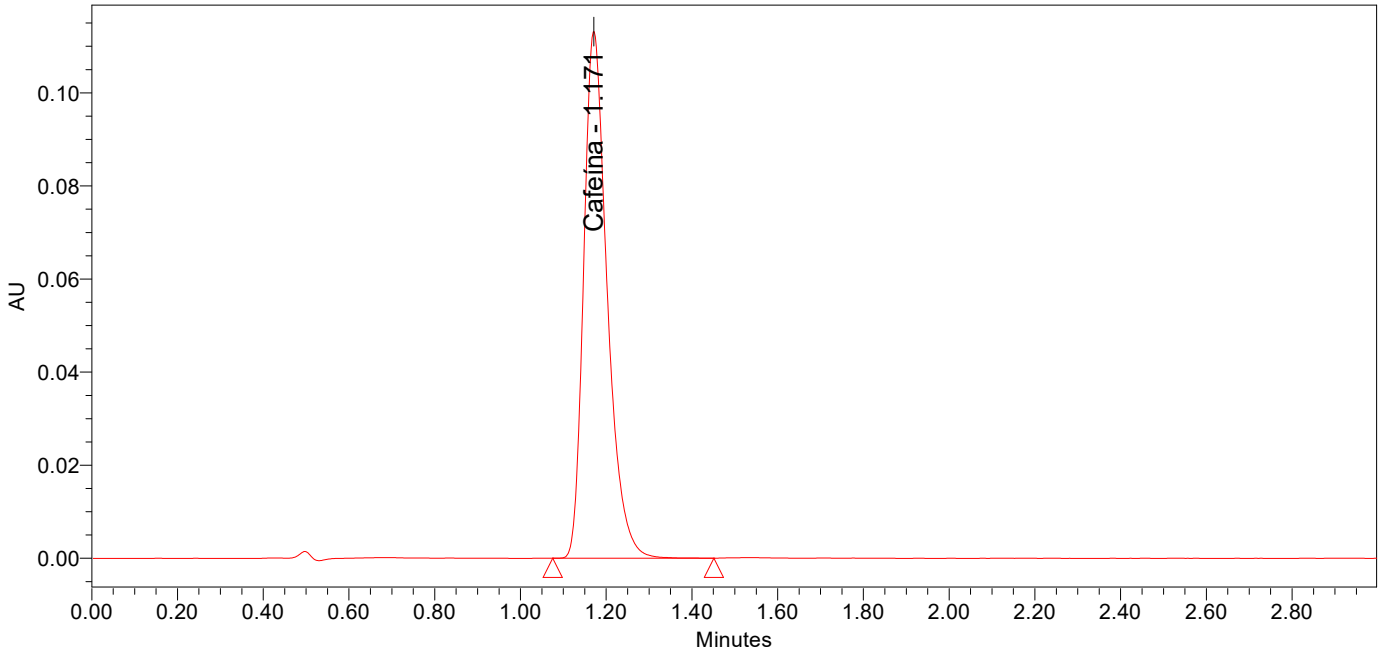
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.164	10761	2683		

SAMPLE INFORMATION

Sample Name:	LIIN 02	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	10	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	5.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 4:12:58 PM -03		
Date Processed:	10/16/2026 10:28:07 AM -03		

Auto-Scaled Chromatogram



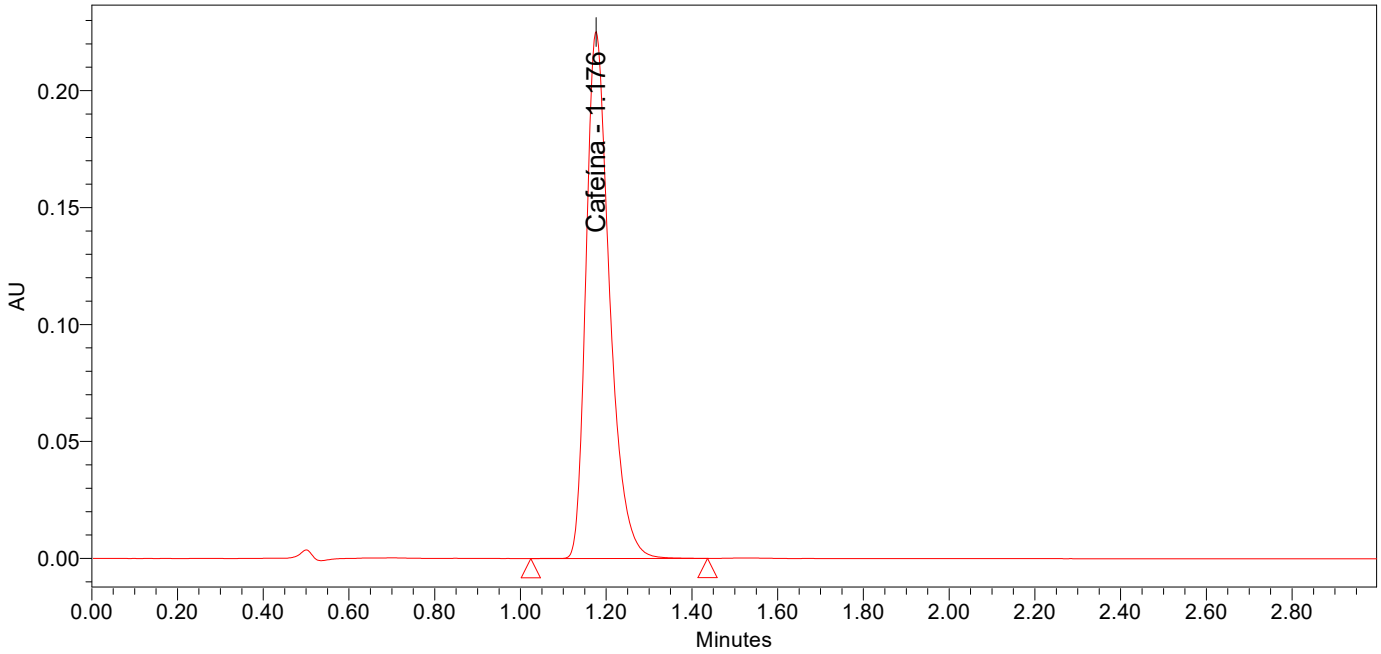
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.171	431053	113251		

SAMPLE INFORMATION

Sample Name:	LIIN 03	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	10	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	10.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 4:17:01 PM -03		
Date Processed:	10/16/2026 10:28:07 AM -03		

Auto-Scaled Chromatogram



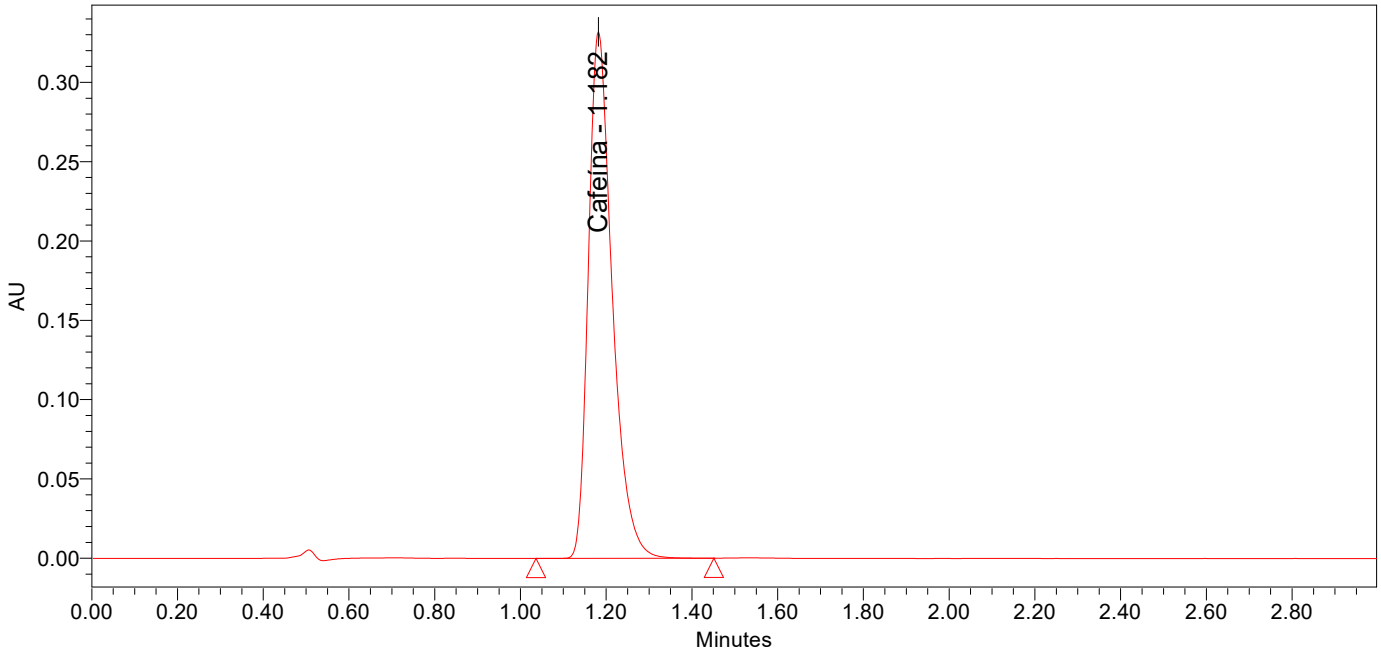
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.176	859848	225311		

SAMPLE INFORMATION

Sample Name:	LIIN 04	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	10	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	15.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 4:21:03 PM -03		
Date Processed:	10/16/2026 10:28:07 AM -03		

Auto-Scaled Chromatogram



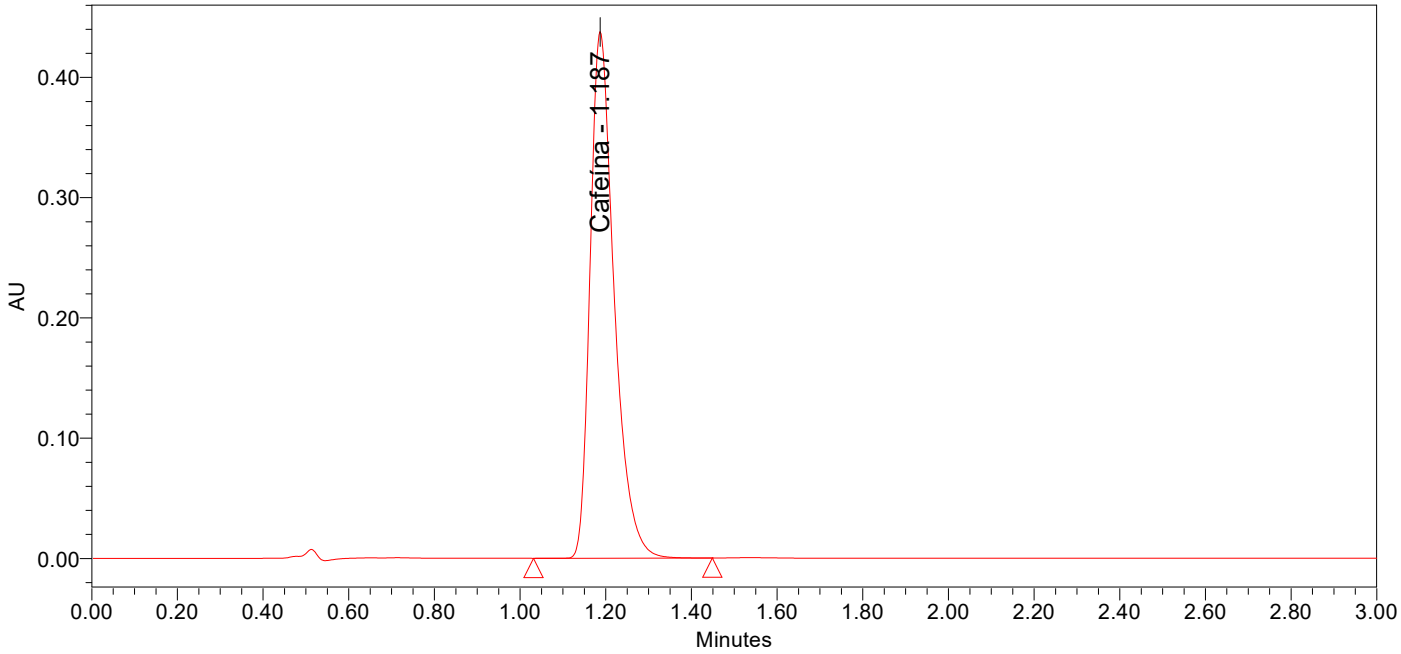
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.182	1284550	332041		

SAMPLE INFORMATION

Sample Name:	LIIN 05	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Qualificação
Vial:	10	Acq. Method Set:	HPL002 Qualificação
Injection #:	1	Processing Method:	QPack Cafeína
Injection Volume:	20.00 ul	Channel Name:	VWD.0.0
Run Time:	3.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/15/2026 4:25:10 PM -03		
Date Processed:	10/16/2026 10:28:08 AM -03		

Auto-Scaled Chromatogram



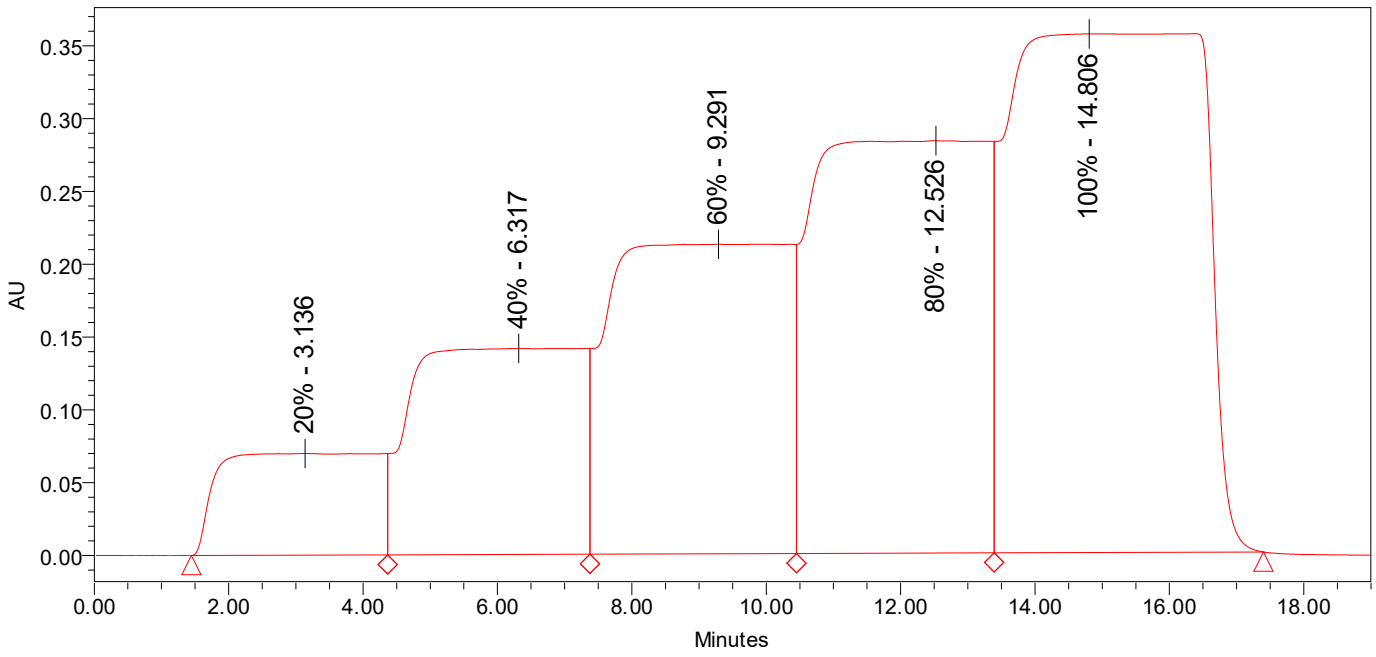
Peak Results

	Name	RT	Area	Height	Amount	Units
1	Cafeína	1.187	1705861	437816		

SAMPLE INFORMATION

Sample Name:	Gradiente AB	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Gradiente
Vial:	2	Acq. Method Set:	HPL002 GRAD AB
Injection #:	1	Processing Method:	Gradiente
Injection Volume:	0.00 ul	Channel Name:	VWD.0.0
Run Time:	19.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/16/2026 12:16:18 PM -03		
Date Processed:	10/16/2026 1:44:42 PM -03		

Auto-Scaled Chromatogram



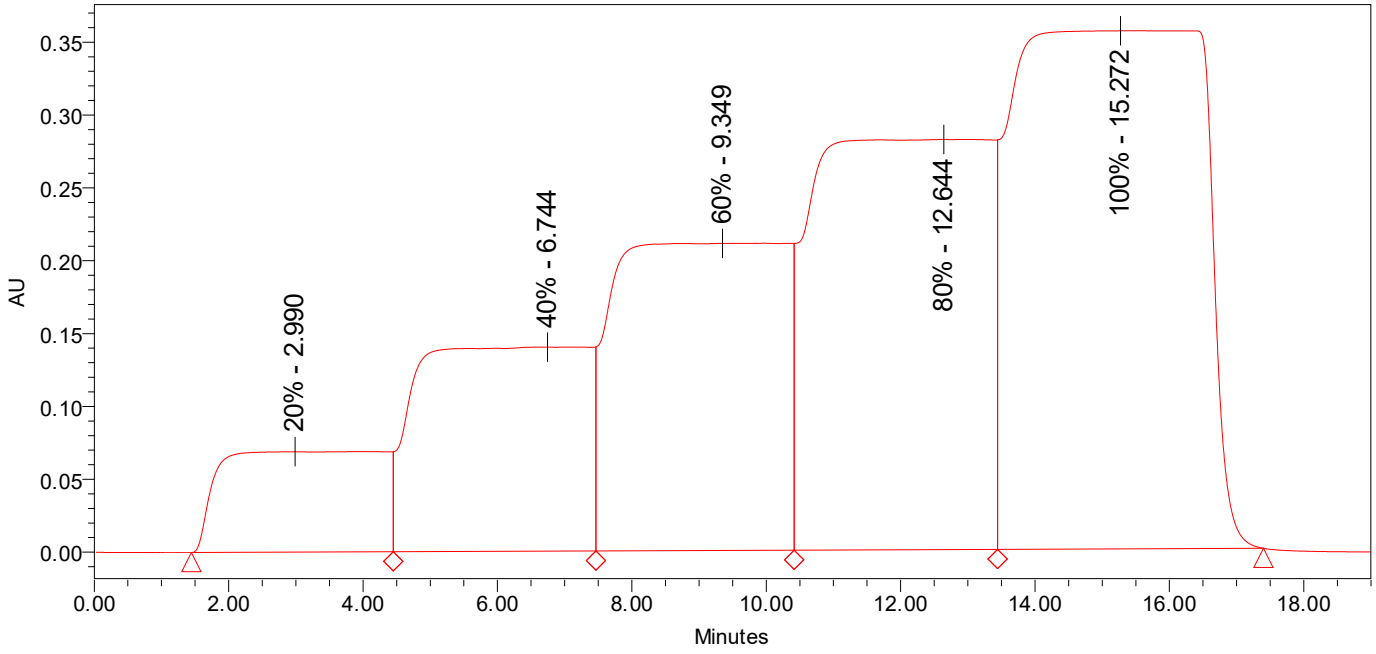
Peak Results

	Name	RT	Area	Height	Amount	Units
1	20%	3.136	11092680	69794		
2	40%	6.317	24030197	141444		
3	60%	9.291	37748089	212539		
4	80%	12.526	48815994	283197		
5	100%	14.806	69345967	356185		

SAMPLE INFORMATION

Sample Name:	Gradiente CD	Acquired By:	fatima.silveira
Sample Type:	Unknown	Sample Set Name:	HPL002 Gradiente
Vial:	2	Acq. Method Set:	HPL002 GRAD CD
Injection #:	1	Processing Method:	Gradiente
Injection Volume:	0.00 ul	Channel Name:	VWD.0.0
Run Time:	19.0 Minutes	Proc. Chnl. Descr.:	VWD: Signal A, 273 nm
Date Acquired:	10/16/2026 3:05:14 PM -03		
Date Processed:	10/16/2026 3:26:02 PM -03		

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	Height	Amount	Units
1	20%	2.990	11283721	68946		
2	40%	6.744	24140573	140076		
3	60%	9.349	36258082	210804		
4	80%	12.644	49858564	281494		
5	100%	15.272	68370802	355570		