

Slovensky metrologicky ústav Bratislava, laboratórium hmotnosti

Dôverné

PROTOKOL Z KALIBRÁCIE súpravy závaží; číslo prot.: sgel

poddel. 3x14 rovníc, [g], meradlo : Etalóny hmotnosti, inv. cis: E1

vlastník : c220 rozsah : 1000 g až 100 g dátum : 27.4.11

číslo certifikátu: , trieda presn: prim etal

kód úlohy : číslo etal: 1 kg E1

miestnosť: lab. H107, pracovný postup: PP 02/220/02

Justáž zabudovanými závažiami vykonaná pred meraním

etalón : $e(1) = 3.53 \text{ mg}$, $se(1) = \pm .015 \text{ mg}$, stípec = 1

tepl : 23.378 C, tlak : 98908.3 Pa, vlhk : 40.38 %

								nam.hod	kor. vztl.	kor.g.
1	1000	-500	-200	-200*	-100	0	=	3.3282	0.5257	-0.0665
2	1000	-500	-200	-200*	0	-100*	=	3.1853	0.5279	-0.0700
3	0	500	-200	-200*	-100	0	=	-0.1281	-0.1215	-0.0315
4	0	500	-200	-200*	0	-100*	=	-0.2628	-0.1192	-0.0350
5	0	0	200	-200*	100	-100*	=	-0.1329	0.0093	-0.0105
6	0	0	200	-200*	-100	100*	=	0.1428	0.0046	-0.0035
7	0	0	200	-200*	0	0	=	0.0039	0.0069	-0.0070
8	0	0	200	-200*	0	0	=	-0.0015	0.0069	-0.0070
9	0	0	200	0	-100	-100*	=	0.0282	0.0081	-0.0175
10	0	0	200	0	-100	-100*	=	0.0272	0.0081	-0.0175
11	0	0	0	200*	-100	-100*	=	0.0194	0.0012	-0.0105
12	0	0	0	200*	-100	-100*	=	0.0263	0.0012	-0.0105
13	0	0	0	0	100	-100*	=	-0.1425	0.0023	-0.0035
14	0	0	0	0	100	-100*	=	-0.1464	0.0023	-0.0035
15	1000	-500	-200	-200*	-100	0	=	3.3039	0.5250	-0.0665
16	1000	-500	-200	-200*	0	-100*	=	3.1582	0.5273	-0.0700
17	0	500	-200	-200*	-100	0	=	-0.1336	-0.1214	-0.0315
18	0	500	-200	-200*	0	-100*	=	-0.2767	-0.1191	-0.0350
19	0	0	200	-200*	100	-100*	=	-0.1428	0.0092	-0.0105
20	0	0	200	-200*	-100	100*	=	0.1418	0.0046	-0.0035
21	0	0	200	-200*	0	0	=	0.0033	0.0069	-0.0070
22	0	0	200	-200*	0	0	=	0.0028	0.0069	-0.0070
23	0	0	200	0	-100	-100*	=	0.0324	0.0081	-0.0175
24	0	0	200	0	-100	-100*	=	0.0286	0.0081	-0.0175
25	0	0	0	200*	-100	-100*	=	0.0329	0.0012	-0.0105
26	0	0	0	200*	-100	-100*	=	0.0283	0.0012	-0.0105
27	0	0	0	0	100	-100*	=	-0.1443	0.0023	-0.0035
28	0	0	0	0	100	-100*	=	-0.1425	0.0023	-0.0035
29	1000	-500	-200	-200*	-100	0	=	3.3008	0.5256	-0.0665
30	1000	-500	-200	-200*	0	-100*	=	3.1581	0.5279	-0.0700
31	0	500	-200	-200*	-100	0	=	-0.1397	-0.1215	-0.0315
32	0	500	-200	-200*	0	-100*	=	-0.2726	-0.1192	-0.0350
33	0	0	200	-200*	100	-100*	=	-0.1365	0.0093	-0.0105
34	0	0	200	-200*	-100	100*	=	0.1396	0.0046	-0.0035
35	0	0	200	-200*	0	0	=	0.0028	0.0069	-0.0070
36	0	0	200	-200*	0	0	=	0.0004	0.0069	-0.0070
37	0	0	200	0	-100	-100*	=	0.0286	0.0081	-0.0175
38	0	0	200	0	-100	-100*	=	0.0250	0.0081	-0.0175
39	0	0	0	200*	-100	-100*	=	0.0296	0.0012	-0.0105
40	0	0	0	200*	-100	-100*	=	0.0342	0.0012	-0.0105
41	0	0	0	0	100	-100*	=	-0.1469	0.0023	-0.0035
42	0	0	0	0	100	-100*	=	-0.1519	0.0023	-0.0035

smerodajná odchýlka merania so = 0.0066mg

	namerané hodnoty mv(i) [mg]	vypočítané hodnoty vh(i) [mg]	rozdiely mv(i)-vh(i) [mg]	hust [mg/cm3]
1	3.7874	3.7690	0.0184	1.1579
2	3.6432	3.6257	0.0175	1.1577
3	-0.2811	-0.2842	0.0031	1.1576
4	-0.4170	-0.4275	0.0105	1.1573
5	-0.1342	-0.1418	0.0077	1.1571
6	0.1439	0.1448	-0.0009	1.1569
7	0.0038	0.0015	0.0023	1.1568
8	-0.0016	0.0015	-0.0031	1.1566
9	0.0188	0.0198	-0.0010	1.1579
10	0.0178	0.0198	-0.0019	1.1580
11	0.0101	0.0183	-0.0082	1.1585
12	0.0169	0.0183	-0.0014	1.1570
13	-0.1437	-0.1433	-0.0004	1.1566
14	-0.1476	-0.1433	-0.0043	1.1563
15	3.7623	3.7690	-0.0067	1.1563
16	3.6155	3.6257	-0.0102	1.1563
17	-0.2865	-0.2842	-0.0023	1.1562
18	-0.4308	-0.4275	-0.0033	1.1563
19	-0.1440	-0.1418	-0.0022	1.1564
20	0.1429	0.1448	-0.0019	1.1565
21	0.0033	0.0015	0.0018	1.1566
22	0.0027	0.0015	0.0012	1.1566
23	0.0230	0.0198	0.0032	1.1569
24	0.0192	0.0198	-0.0006	1.1571
25	0.0236	0.0183	0.0053	1.1571
26	0.0190	0.0183	0.0007	1.1572
27	-0.1455	-0.1433	-0.0022	1.1575
28	-0.1437	-0.1433	-0.0004	1.1575
29	3.7599	3.7690	-0.0091	1.1577
30	3.6159	3.6257	-0.0098	1.1576
31	-0.2928	-0.2842	-0.0086	1.1575
32	-0.4268	-0.4275	0.0006	1.1574
33	-0.1378	-0.1418	0.0041	1.1573
34	0.1407	0.1448	-0.0041	1.1572
35	0.0027	0.0015	0.0012	1.1572
36	0.0004	0.0015	-0.0011	1.1571
37	0.0192	0.0198	-0.0006	1.1570
38	0.0156	0.0198	-0.0042	1.1570
39	0.0202	0.0183	0.0020	1.1569
40	0.0248	0.0183	0.0065	1.1567
41	-0.1481	-0.1433	-0.0048	1.1567
42	-0.1531	-0.1433	-0.0098	1.1567

