

- 1 funkce SUMA (SUM)
- 2 kopírování funkcí
- 3 používání dolaru
- 4 používání funkce KDYŽ (IF)

1	2	3	4	5	6
2	25				
4	14				
3	97				
2	24				
1	4				
7	108				
5	87				
2	32				
3	55				

galenit PbS

Pb	86.6 hm.%
S	13.4 hm.%
suma	100 hm.%

chalkopyrit CuFeS_2

Cu	34.63 hm.%
Fe	30.43 hm.%
S	34.94 hm.%
suma	100 hm.%

freibergit $(\text{Ag,Cu,Fe})_{12}(\text{Sb,As})_4\text{S}_{13}$

Fe	3.27 hm.%
Cu	11.86 hm.%
Ag	40.26 hm.%
Sb	18.93 hm.%
As	3.88 hm.%
S	21.66 hm.%
suma	99.86 hm.%

Weight%

DataSet/Pc S	Ag	Zn	Fe	Ni	Mn	Cu	Co	
20 / 1 .	53.269	0.039	0	46.289	0.004	0.001	0.056	0
32 / 1 .	52.614	0.043	0.001	46.654	0.009	0.028	0.01	0
29 / 1 .	40.249	0.005	0	57.758	0	0.005	0	0

DataSet/Pc S	Ag	Zn	Fe	Ni	Mn	Cu	Co	
27 / 1 .	33.493	0	65.864	0.013	0	0.041	0.65	0
30 / 1 .	34.083	0	60.276	6.263	0.003	0.074	0.019	0
34 / 1 .	33.945	0.034	66.499	0.088	0.003	0.035	0.011	0.007
35 / 1 .	33.619	0.003	65.788	0.076	0	0	0.031	0
36 / 1 .	33.454	0	66.848	0.085	0	0.005	0.026	0

Det.Lim ppm

DataSet/Pc S	Ag	Zn	Fe	Ni	Mn	Cu	Co	
20 / 1 .	887	671	266	296	195	180	240	237
32 / 1 .	900	667	268	299	193	179	235	237
29 / 1 .	824	697	276	328	201	186	246	248

DataSet/Pc S	Ag	Zn	Fe	Ni	Mn	Cu	Co	
27 / 1 .	857	785	339	158	159	181	247	172
30 / 1 .	856	778	334	186	166	183	242	179
34 / 1 .	854	753	342	161	158	177	241	170
35 / 1 .	868	800	337	164	161	184	242	170
36 / 1 .	872	805	343	166	161	181	245	174

As	Se	Cd	In	Total	Comment	Date
	0	0.009	0	0	99.667 HB 305/2	#####
	0	0	0.015	0	99.374 HB pyr	#####
	0.002	0.015	0.011	0	98.045 HB pyr	#####

As	Se	Cd	In	Total	Comment	Date
	0	0	0.322	0.003	100.387 HB 305/2	#####
	0.012	0	0.002	0	100.732 HB pyr	#####
	0	0	0.325	0	100.946 HB 460	#####
	0.083	0	0.238	0	99.838 HB 459	#####
	0.041	0	0.22	0.001	100.681 HB 459	#####

As	Se	Cd	In	Comment	Date
	678	595	408	236 HB 305/2	#####
	660	600	407	232 HB pyr	#####
	744	673	407	239 HB pyr	#####

As	Se	Cd	In	Comment	Date
	1040	1092	433	247 HB 305/2	#####
	984	1038	434	245 HB pyr	#####
	1031	1086	434	249 HB 460	#####
	1013	1096	441	250 HB 459	#####
	1040	1111	442	250 HB 459	#####

Weight%

DataSet/Pc S	Ag	Sb	Pb	Bi	Cd	Hg	Cu	
21 / 1 .	27.026	0.115	3.148	0	0	0.106	0	43.202
22 / 1 .	24.722	0.681	0	0	0.036	0	0	62.188
23 / 1 .	20.992	1.307	0	0	0.003	0	0.001	77.474
24 / 1 .	25.293	0.718	0	0	0	0.005	0	62.813
25 / 1 .	20.745	1.12	0.045	0	0	0	0	78.241
26 / 1 .	13.324	0	0.004	86.009	0	0.026	0	0.012
33 / 1 .	27.859	0.331	3.011	0	0	0.064	0	43.065
37 / 1 .	27.577	3.691	3.685	0	0	0.045	0.047	39.78
38 / 1 .	27.148	5.363	3.708	0	0	0.075	0.047	39.178
39 / 1 .	25.814	7.585	7.645	0	0	0.067	0.065	36.65
40 / 1 .	13.592	0.038	0.12	86.009	0.017	0.007	0	0.11

Det.Lim ppm

DataSet/Pc S	Ag	Sb	Pb	Bi	Cd	Hg	Cu	
21 / 1 .	360	739	917	1056	1598	768	754	300
22 / 1 .	362	731	870	1022	1427	742	730	327
23 / 1 .	333	718	892	1045	1434	765	713	342
24 / 1 .	333	699	859	972	1510	722	686	326
25 / 1 .	335	681	862	1010	1454	753	707	341
26 / 1 .	465	1107	1287	1455	2169	1123	792	285
33 / 1 .	369	754	906	1087	1546	761	731	294
37 / 1 .	369	767	915	1039	1673	814	745	292
38 / 1 .	376	771	936	1038	1572	818	749	297
39 / 1 .	353	754	953	1065	1602	848	729	290
40 / 1 .	459	1112	1289	1448	2135	1127	808	288

Fe	Co	Ni	As	Se	Zn	Total	Comment	Date
0.06		0	0	18.201	0	8.485	100.343	HB 305/2 #####
10.959		0	0.006	0	0.014	0.014	98.62	HB 305/2 #####
0.101		0	0	0	0.035	0.017	99.93	HB 305/2 #####
10.511		0	0	0	0	0.02	99.36	HB 305/2 #####
0.161		0	0	0	0	0.03	100.342	HB 305/2 #####
0		0	0	0.083	0	0	99.458	HB 305/2 #####
1.02		0	0	17.355	0	7.713	100.418	HB 460 #####
1.077		0	0	16.854	0	7.506	100.262	HB 459 #####
1.111	0.001	0	16.838	0	0	7.266	100.735	HB 459 #####
0.993	0	0	14.24	0	0	7.068	100.127	HB 459 #####
0.006	0.012	0	0.058	0.003	0.034	100.006	HB 459 #####	

Fe	Co	Ni	As	Se	Zn	Comment	Date
169	174	192	1248	1204	289	HB 305/2	#####
198	177	196	1151	1099	296	HB 305/2	#####
152	157	198	1230	1148	300	HB 305/2	#####
191	178	196	1133	1101	292	HB 305/2	#####
153	157	197	1263	1170	297	HB 305/2	#####
254	252	250	784	885	319	HB 305/2	#####
173	172	194	1247	1175	285	HB 460	#####
174	177	196	1220	1143	289	HB 459	#####
176	180	196	1207	1138	287	HB 459	#####
183	190	202	1188	1106	291	HB 459	#####
251	249	247	773	861	318	HB 459	#####

tabulka hmotnostních procent oxidů

ilmenit

Oxide

DataSet/Pc	SiO2	Al2O3	MgO	Y2O3	SnO2	FeO	MnO	Cr2O3
6 / 1 .	2.77	1.515	0.008	0	0	42.286	2.975	0.008
7 / 1 .	0.025	0.016	0.022	0.019	0	44.157	3.463	0.017
20 / 1 .	0.017	0.007	0.069	0.007	0	44.356	3.111	0
21 / 1 .	0.038	0	0.124	0	0.011	44.907	2.596	0.017
22 / 1 .	0.049	0	0.342	0.017	0	45.467	1.854	0.046
23 / 1 .	0.026	0.021	0.363	0	0	45.763	1.705	0.058
37 / 1 .	0.027	0.002	0.294	0.01	0.002	45.469	2.049	0.04
38 / 1 .	0.031	0	0.232	0	0	45.222	2.204	0.028
40 / 1 .	0	0.063	0	0	0.008	0.374	0	0.461
55 / 1 .	0.007	0.017	0.233	0	0	45.357	1.807	0.007
56 / 1 .	0.013	0.01	0.163	0.004	0	45.045	2.013	0.009
109 / 1 .	0.009	0.016	0.006	0	0	36.763	0.149	0.024

Det.Lim ppm

DataSet/Pc	Si	Al	Mg	Y	Sn	Fe	Mn	Cr
6 / 1 .	180	185	207	493	248	512	431	149
7 / 1 .	181	176	212	486	246	526	440	150
20 / 1 .	185	180	201	495	248	525	420	153
21 / 1 .	181	177	188	486	242	514	403	148
22 / 1 .	180	183	205	490	248	542	439	152
23 / 1 .	184	179	208	495	249	518	392	152
37 / 1 .	185	174	202	487	244	540	423	151
38 / 1 .	181	179	211	500	249	537	417	152
40 / 1 .	167	159	173	444	220	365	377	149
55 / 1 .	183	172	209	495	247	501	417	151
56 / 1 .	182	175	197	492	249	527	406	150
109 / 1 .	176	174	202	488	240	498	381	149

živce

	CaO	K2O	FeO	Na2O	SiO2	P2O5	BaO	MnO
5 / 1 .	6.822	0.223	0.394	7.489	59.284	0.026	0	0.015
8 / 1 .	3.53	0.328	0.013	8.944	63.861	0	0	0
18 / 1 .	5.371	0.144	0.172	8.562	62.015	0.032	0.004	0.018
19 / 1 .	6.859	0.141	0.123	7.492	60.174	0.042	0	0.014
26 / 1 .	7.047	0.076	0.26	7.259	59.272	0	0.029	0.014
27 / 1 .	8.88	0.062	0.338	6.428	55.94	0	0.013	0.024
28 / 1 .	0.061	13.536	0.276	0.059	66.416	0	0.342	0
33 / 1 .	7.768	0.08	0.044	7.168	58.346	0.016	0.006	0
34 / 1 .	5.84	0.071	0.201	8.121	60.94	0.01	0.012	0.013
51 / 1 .	4.687	0.291	0	8.335	62.722	0.021	0	0
52 / 1 .	5.412	0.249	0.027	7.612	61.73	0.113	0	0
53 / 1 .	0	14.226	0.039	1.347	63.886	0.156	0.642	0.015
54 / 1 .	0.01	13.986	0.06	1.683	64.505	0.142	0.496	0.016

WO3	V2O3	TiO2	CaO	ZrO2	Nb2O5	Sc2O3	Ta2O5	ZnO
0.028	0	49.083	0.407	0	0.032	0.013	0.027	0
0.017	0.093	51.809	0.022	0	0.12	0.045	0.007	0
0.047	0	51.926	0.014	0	0.043	0.042	0	0.002
0	0	51.931	0.009	0	0.082	0.037	0	0
0.02	0.128	51.349	0.175	0	0.006	0.003	0	0.079
0	0.136	51.38	0.116	0	0.022	0.002	0	0.017
0.099	0.139	51.809	0.115	0.01	0.035	0	0.038	0
0	0.186	51.553	0.089	0.019	0	0.013	0	0
0.435	0.326	95.951	0	0.07	0.828	0.013	0.036	0
0	0.058	52.524	0	0.002	0.011	0.013	0	0
0.028	0	52.579	0.009	0	0	0	0.021	0
0	0	57.547	0.004	0.014	0.13	0.003	0	0

W	V	Ti	Ca	Zr	Nb	Sc	Ta	Zn
2168	1584	380	152	670	732	216	1078	1752
2191	1583	394	149	684	738	223	1077	1738
2190	1616	401	150	668	744	223	1086	1639
2119	1549	392	149	678	730	219	1066	1634
2178	1511	398	153	684	765	221	1073	1623
2165	1564	383	154	687	732	223	1064	1744
2144	1573	408	154	655	732	223	1064	1703
2156	1542	387	151	662	762	222	1082	1767
2006	1615	427	135	593	704	188	952	1328
2188	1582	394	152	666	762	213	1069	1712
2154	1646	390	150	681	747	223	1067	1671
2128	1591	391	148	647	761	212	1037	1533

Al2O3	SrO	Total
25.007	0.054	99.314
22.047	0.032	98.763
23.698	0.085	100.101
24.926	0.08	99.851
25.179	0.131	99.274
27	0.128	98.814
19.173	0.079	99.947
25.854	0.071	99.356
24.605	0.05	99.863
23.32	0.05	99.433
24.127	0.078	99.346
18.499	0.074	98.885
18.794	0.096	99.789

NiO	Total
0	99.153
0.018	99.849
0.009	99.652
0.019	99.772
0.011	99.545
0.031	99.641
0	100.138
0.04	99.617
0	98.564
0.014	100.05
0.024	99.918
0	94.667

Ni	O
732	
723	
743	
722	
736	
746	
727	
752	
673	
746	
745	
742	

53.96
47.9982
101.9582

0.417947	86.6	207.2	0.417953668
86.59854	13.4	32.065	0.417901138
13.40146			

	1	2	3	4	5	6
	hm. %	mol. hm	počet molů	normalizace	koef. přepočtu	výsledek
Cu	34.63	63.55	0.5449	1	1.8351	1
Fe	30.43	55.85	0.5449	1	1.8354	1
S	34.94	32.065	1.0897	2	1.8354	2
suma	100		2.1794	4	1.8353	4

	1	2	3	4	5	6
	hm. %	mol. mh	počet molů oxidů	počet prvku v oxidu	počet molů prvku	koeficient
MgO	17.34	40.305	0.430219576	1	0.430219576	
FeO	30.93	71.845	0.430510126	1	0.430510126	
SiO2	51.73	60.0855	0.860939827	1	0.860939827	2.32304272
suma	100					

	1	2	3	4	5	6
	hm. %	mol. mh	počet molů oxidů	počet kyslíků v oxidu	počet molů kyslíků	koeficient
MgO	17.34	40.305	0.430219576	1	0.430219576	
FeO	30.93	71.845	0.430510126	1	0.430510126	
SiO2	51.73	60.0855	0.860939827	2	1.721879655	
suma	100				2.582609357	2.32323173

7
výsledek
0.999418
1.000093
2

7	8	9
počet prvku v oxidu	počet molů prvku	výsledek
1	0.43022	0.9995
1	0.43051	1.000175
1	0.86094	2.000163