Do you know what you drink?

Water intake is essential for a human organism. Water accounts for a half to three quarters of the weight of a human body and its content changes depending on age. Approximately, 40% of the content is inside of cells and 60 % is in the space outside the cells in an extracellular environment. Blood and lymph contain most of water and the highest mass content of water is in brain (90 %), the lowest in teeth, bones and fat tissue (about 10 %).

In general, an adult should drink 20 – 40 ml of liquids per one kg of body mass in 24 hours, which is approximately 2 - 3 litres of liquids daily. A need of liquid intake is in fact very individual and depends on plenty of external and internal factors, e.g. on body weight, age and sex, composition and amount of food, physical activity, air temperature or health state. As for children metabolism is quicker, so they should drink even more water.

Mineral water is a groundwater with special properties according to the Austrian Mineral Water and Spring Water Ordinance. Its ingredients may fluctuate only marginally. It must come from underground water resources and be of original purity. Mineral water is bottled directly at the point of extraction - source/well - and requires official recognition.

Natural mineral water helps, among other things, to **cover the body's need for minerals and trace elements**. Minerals play a role in maintaining bodily functions. Since the organism cannot produce such substances itself, they must be absorbed by food and drink. Natural mineral water is suitable for this purpose. It naturally contains various minerals and trace elements. This is because it enriches it on its long-term journey through different layers of rock and earth. Minerals and trace elements are important for the organism.

Minerals such as the cations **calcium**, **potassium**, **magnesium** or **sodium** as well as the anions **chloride**, **hydrogen carbonate** (salts of carbonic acid), **nitrate** (salts of nitric acid) or **sulphate** (salts of sulphuric acid) are inorganic nutrients. They perform numerous functions in the body. These so-called quantity elements occur in the organism in greater concentrations and must be absorbed daily in grams. Trace elements, on the other hand, are substances that are present in the body only in low concentrations. They therefore only need to be absorbed in very small quantities. These include **iodine** or **fluorine**.

Learn more about the mineral water ingredients

In order to better interpret the mineral water comparison, here are some information about the ingredients.

Sulfate

Sulfate is a natural sulfur compound and a component of body proteins and cartilage. It has a digestive effect known and stimulates bile flow. Its properties can be enhanced especially in combination with magnesium and calcium. However, too high concentrations (>1,200 mg/l) of sulfate in mineral water can lead to digestive problems. The Drinking Water Ordinance imposes a limit value of 250 mg/l for sulfate. Conclusion: **the less** sulfate **the better**.

Hydrogen carbonate

Hydrogen carbonate is formed by the human body itself. This regulates the pH of the blood and maintains the acid-base balance in balance. In the usual western way of life, however, the body finds it difficult to compensate for a high acidification with its own strength. It therefore requires additional hydrogen carbonate, which can be supplied by mineral water. If the mineral water provides over 1300 mg of hydrogen carbonate per litre, it can help the body to compensate or mitigate disturbances of acid-base balance. Conclusion: **the more** hydrogen carbonate **the better**.

Chloride

Chloride is usually taken out by food as table salt. This consists of sodium and chloride. It is the water distribution in the body spaces. Since we usually already absorb enough chloride through the salt, the less the better. Recommended chloride intake 830 mg/day. Conclusion: **the less** chloride **the better**.

Sodium

Sodium is a mineral that the body needs for the acid-base balance and which we are sufficiently absorbed by the food in the form of table salt. Recommended sodium intake 550 mg/day. Conclusion: **the less** sodium **the better**.

Magnesium

The vital mineral magnesium is necessary for normal muscle function, among other things. Recommended magnesium intake 400 mg/day. Conclusion: **the more** magnesium **the better.**

Potassium

Potassium is a mineral that is mainly present inside body cells. It is responsible for the regulation of the water balance. Recommended potassium intake 2000 mg/day. Conclusion: **the more** potassium **the better**.

Calcium

Calcium is an important mineral for bone metabolism and for the correct functioning of enzymes. It helps with internal restlessness and is essential for allergy, itching, and torturous diarrhea due to food intolerance. The limit value for calcium intake is 1000 mg/day. Up to 2000 mg/day, the intake is considered safe. Conclusion: **the more** calcium **the better**.

Jodine

Iodine is an essential trace element. The body can only absorb it through food. Austria is an iodine-deficient area, which means that it is hardly present in the soils. To compensate for this deficiency, salt is usually added to iodine. Mineral water can assist in iodine absorption. The limit for iodine is 0,2 mg / day. Conclusion: **the more** jodine **the better**.

Nitrate

Nitrate is incorporated into the soil as a natural and artificial fertilizer in order to maximize agricultural cultivation. What is not bound by the plants is introduced into the ground and surface water with rain. Basic and surface water is the source of our drinking water, so nitrates and nitrites are in drinking water. And the number of these is increasing from year to year. Nitrate itself is not toxic. On the contrary, it lowers blood pressure, ensures healthy digestion and promotes blood circulation. Nitrate-rich diets are more athletically efficient. The problem with nitrate is nitrite, which is involved in the formation of carcinogenic nitrosamines. Because nitrate can be reduced to nitrite by nitrite-forming bacteria in the gastrointestinal tract. We are talking about conversion rates ranging from 5% in adults to up to 20% in infants. The limit value for nitrate intake is 25 mg/l. Conclusion: **the less** nitrate **the better.**

Fluoride

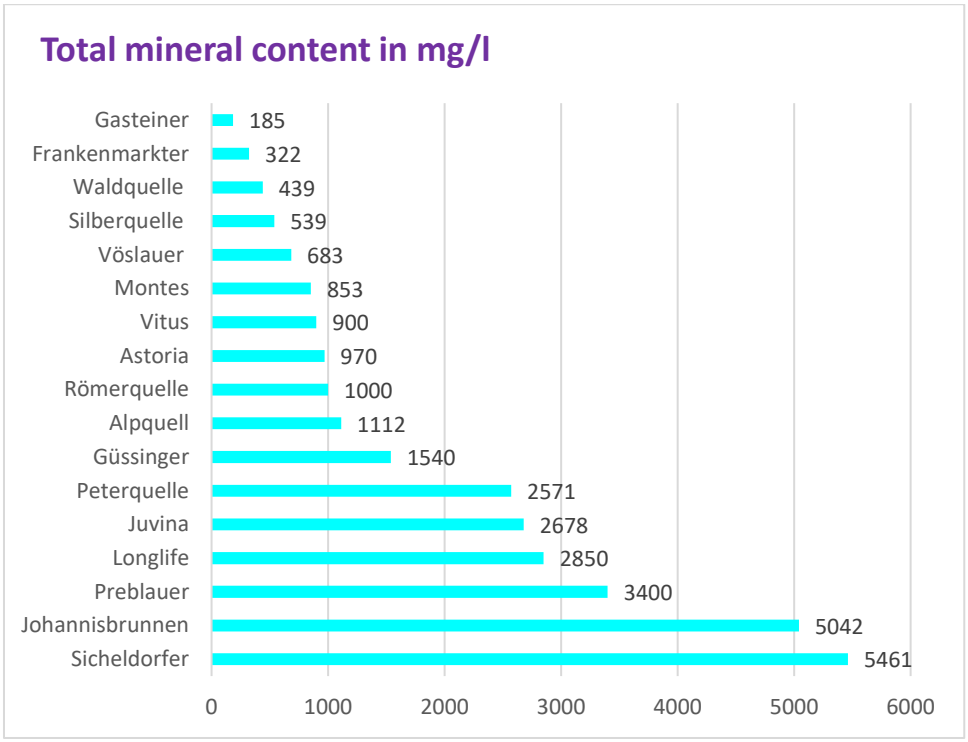
The spirits of fluoride are divided. We often encounter fluoride: black tea, fish and in most toothpastes. In the USA, fluoride is even added to drinking water. But critics associate fluorides with numerous conditions, such as arthritis, diabetes, thyroid disease, kidney disease and even cancer. The World Health Organization (WHO) has not set a value for daily fluoride requirements because fluoride is not an essential trace element. Due to the contradictory study situation and the assumption that we already carry fluoride by other means, we consider additional fluoride to be rather negative.

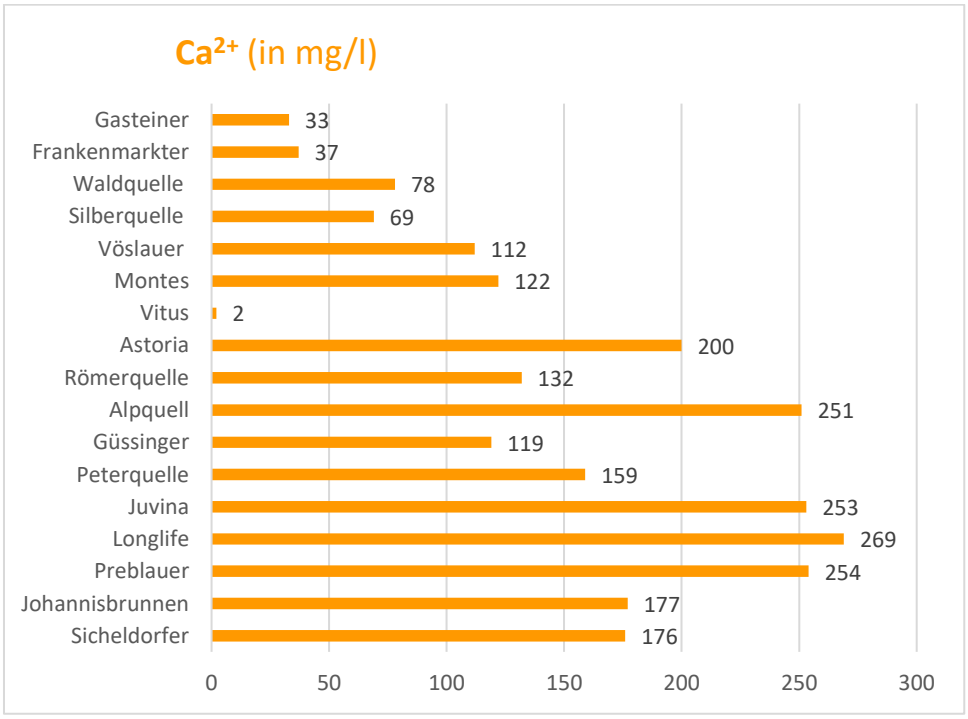
What makes the difference between the diverse mineral waters?

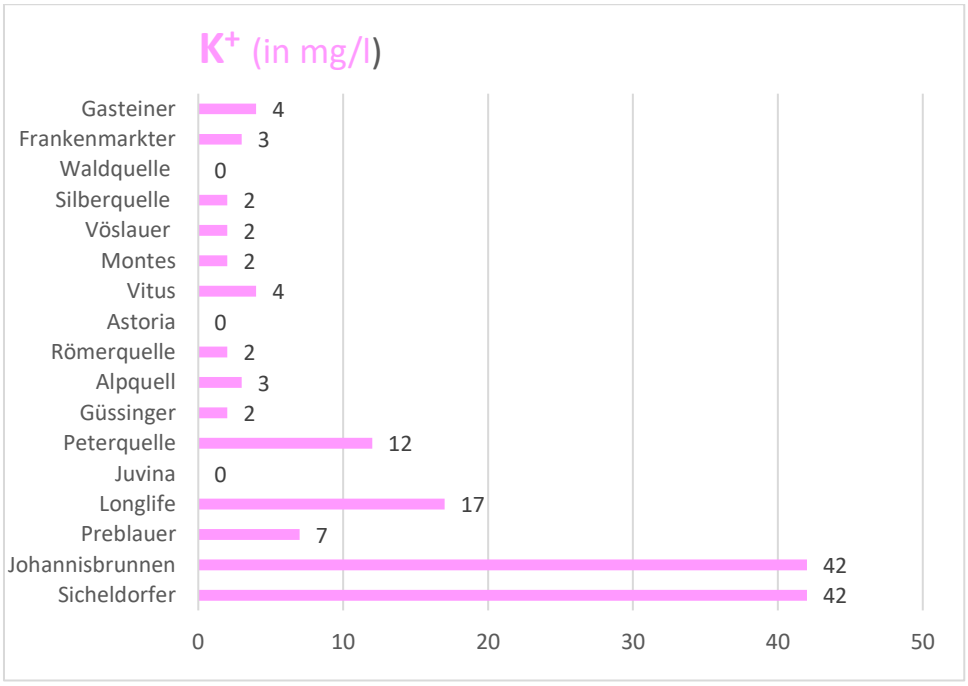
Find here in the following table the most important mineral water companies in Austria[1] - from regionally successful family business to international players.

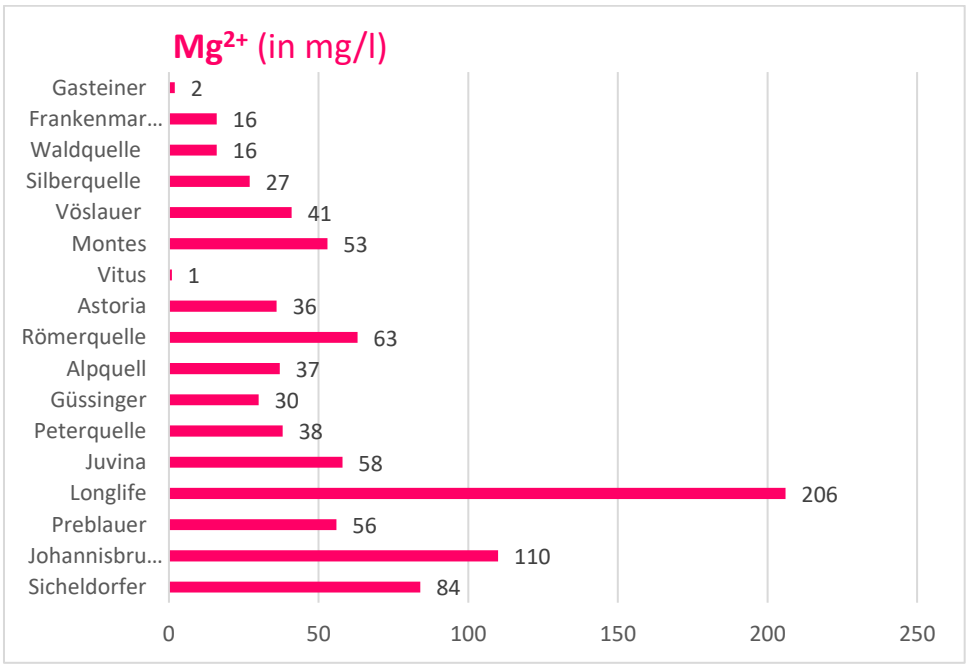
	Minerals and trace elements (in mg/l)									
Mineral water brand	Ca^{2+}	K^{+}	Mg^{2+}	Na^{+}	Cl^{-}	HCO_3^{-}	NO_3^{-}	SO_4^{2-}	Jodine	Flouride
RÖMERQUELLE	132	2,6	63	16,2	5,1	413		267	0,5	0
PREBLAUER	104	41	17	678	50	1941		112	1	0
VÖSLAUER										
GASTEINER										
PETERQUELLE										
ALPQUELL TIROL										
ASTORIA										
FRANKEN MARKTER										
JUVINA										
LEBENSQUELL										
long life										
Minaris										
MONTES										
SilberQuelle										
TIROLER Quelle										
VITUS QUELLE										

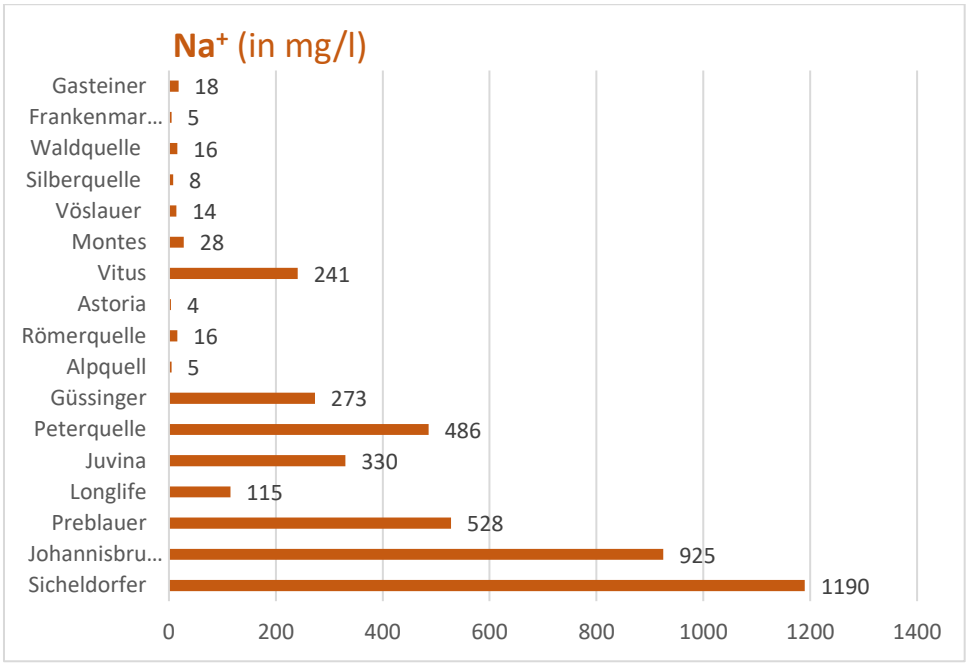
[1] www.forum-mineralwasser.at


Total mineral content in mg/l
Gasteiner 185
Frankenmarkter 322
Waldquelle 439
Silberquelle 539
Vöslauer 683
Montes 853
Vitus 900
Astoria 970
Römerquelle 1000
Alpquell 1112
Güssinger 1540
Peterquelle 2571
Juvina 2678
Longlife 2850
Preblauer 3400
Johannisbrunnen 5042
Sicheldorfer 5461
0 1000 2000 3000 4000 5000 6000


Ca2+ (in mg/l)
Gasteiner 33
Frankenmarkter 37
Waldquelle 78
Silberquelle 69
Vöslauer 112
Montes 122
Vitus 2
Astoria 200
Römerquelle 132
Alpquell 251
Güssinger 119
Peterquelle 159
Juvina 253
Longlife 269
Preblauer 254
Johannisbrunnen 177
Sicheldorfer 176
0 50 100 150 200 250 300


K+ (in mg/l)
Gasteiner 4
Frankenmarkter 3
Waldquelle 0
Silberquelle 2
Vöslauer 2
Montes 2
Vitus 4
Astoria 0
Römerquelle 2
Alpquell 3
Güssinger 2
Peterquelle 12
Juvina 0
Longlife 17
Preblauer 7
Johannisbrunnen 42
Sicheldorfer 42
0 10 20 30 40 50


Mg2+ (in mg/l)
Gasteiner 2
Frankenmar... 16
Waldquelle 16
Silberquelle 27
Vöslauer 41
Montes 53
Vitus 1
Astoria 36
Römerquelle 63
Alpquell 37
Güssinger 30
Peterquelle 38
Juvina 58
Longlife 206
Preblauer 56
Johannisbru... 110
Sicheldorfer 84
0 50 100 150 200 250


Na+ (in mg/l)
Gasteiner 18
Frankenmar… 5
Waldquelle 16
Silberquelle 8
Vöslauer 14
Montes 28
Vitus 241
Astoria 4
Römerquelle 16
Alpquell 5
Güssinger 273
Peterquelle 486
Juvina 330
Longlife 115
Preblauer 528
Johannisbru… 925
Sicheldorfer 1190
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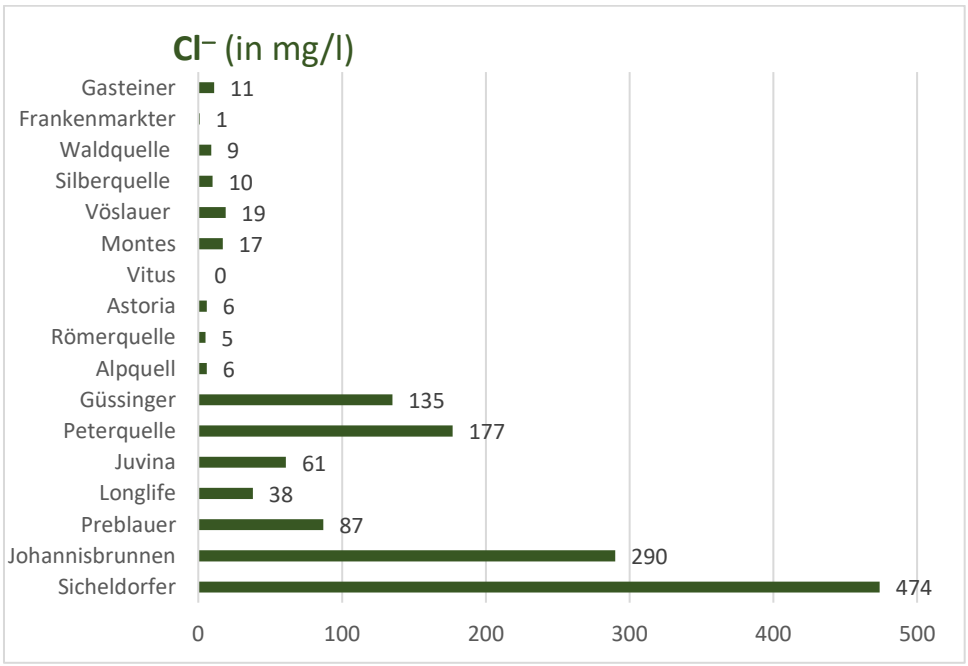
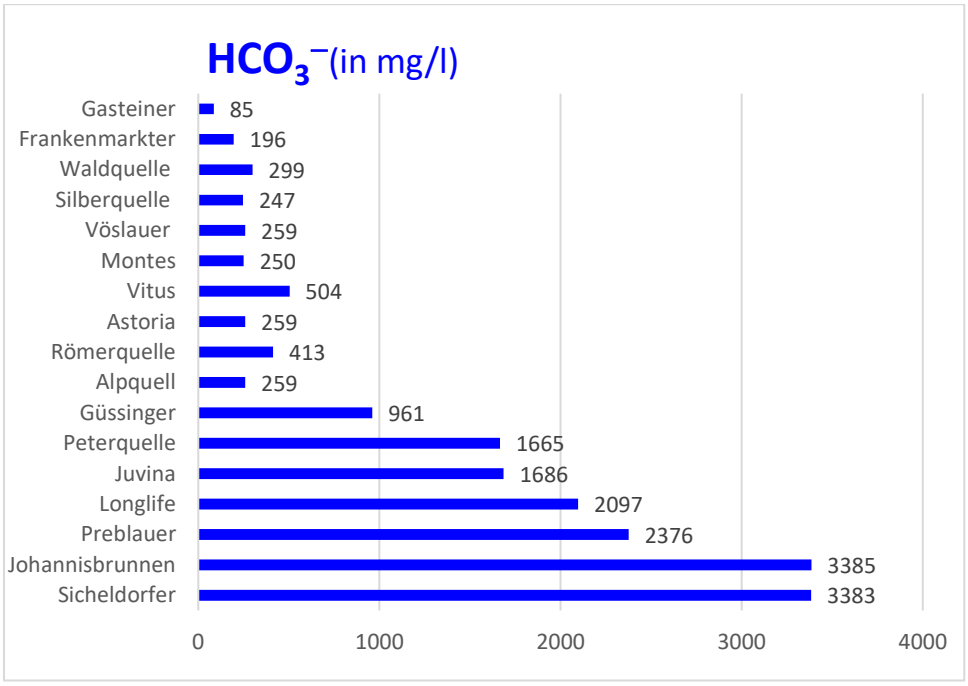
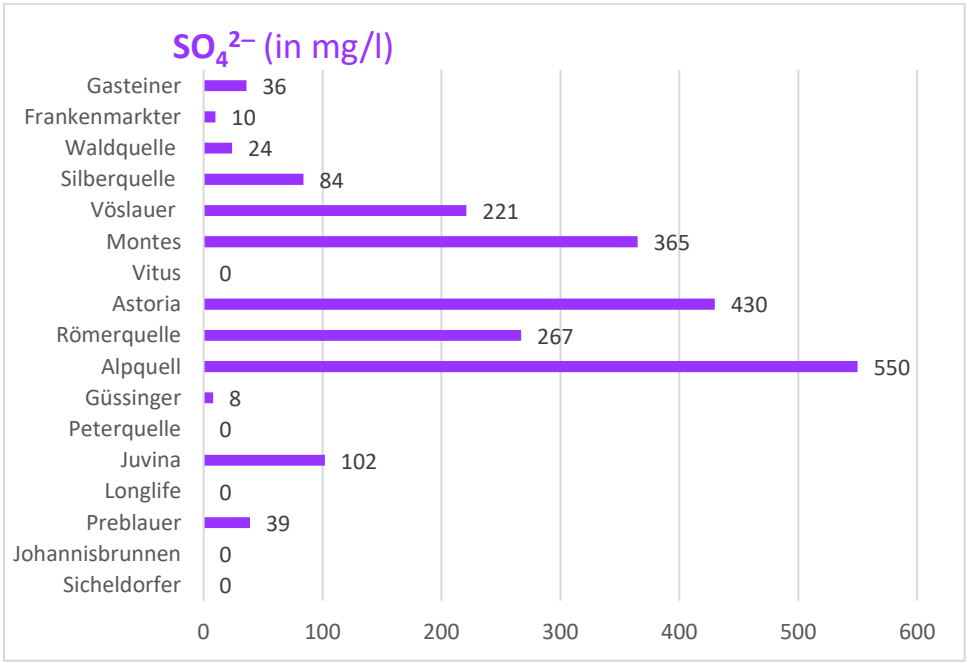
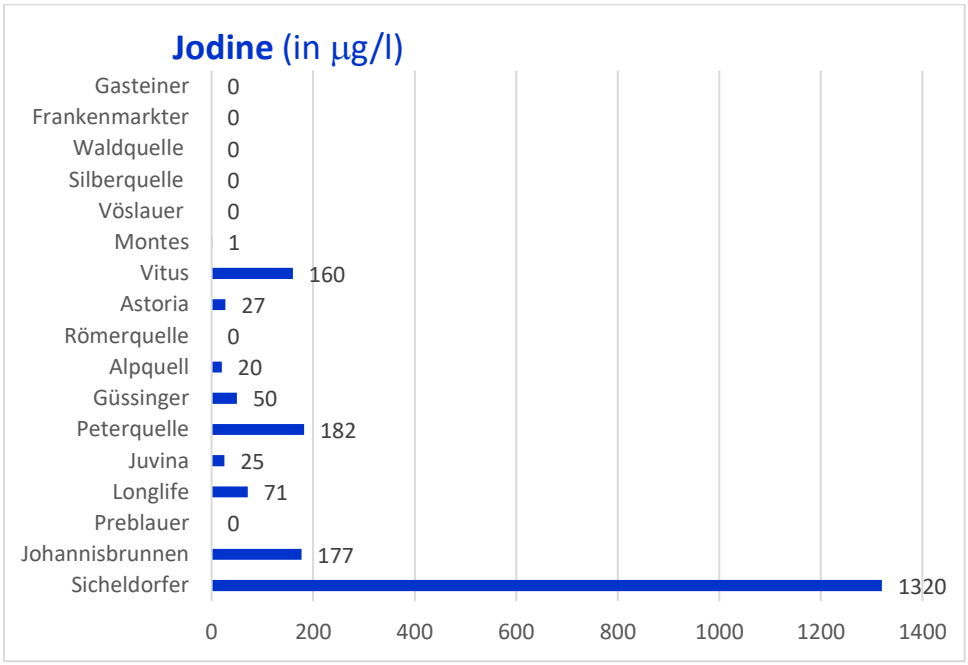
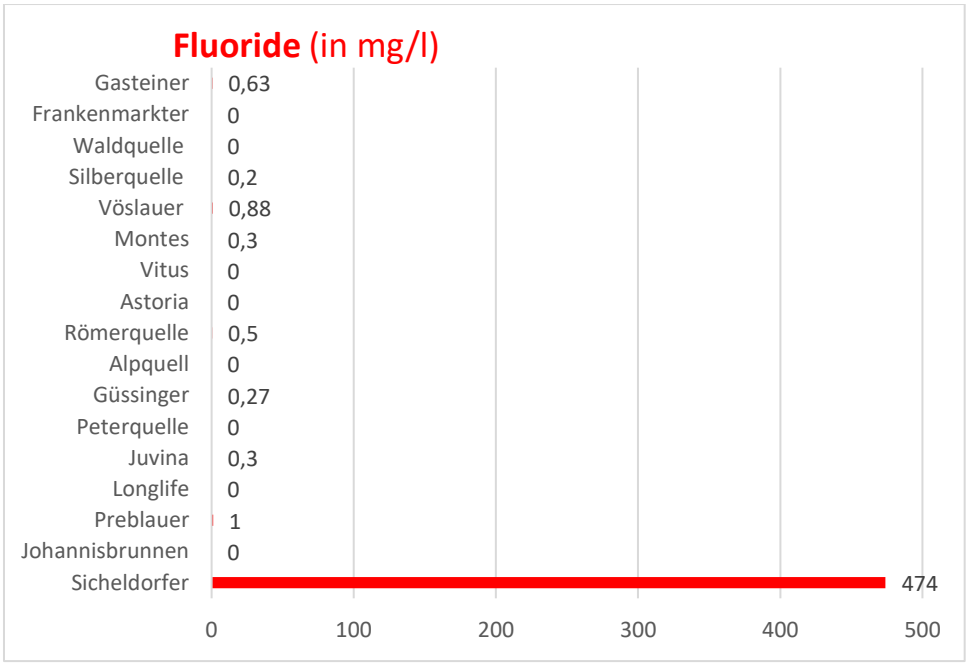

Cl− (in mg/l)
Gasteiner 11
Frankenmarkter 1
Waldquelle 9
Silberquelle 10
Vöslauer 19
Montes 17
Vitus 0
Astoria 6
Römerquelle 5
Alpquell 6
Güssinger 135
Peterquelle 177
Juvina 61
Longlife 38
Preblauer 87
Johannisbrunnen 290
Sicheldorfer 474
0 100 200 300 400 500


HCO_3^- (in mg/l)
Gasteiner 85
Frankenmarkter 196
Waldquelle 299
Silberquelle 247
Vöslauer 259
Montes 250
Vitus 504
Astoria 259
Römerquelle 413
Alpquell 259
Güssinger 961
Peterquelle 1665
Juvina 1686
Longlife 2097
Preblauer 2376
Johannisbrunnen 3385
Sicheldorfer 3383
0 1000 2000 3000 4000


SO_4^{2-} (in mg/l)
Gasteiner 36
Frankenmarkter 10
Waldquelle 24
Silberquelle 84
Vöslauer 221
Montes 365
Vitus 0
Astoria 430
Römerquelle 267
Alpquell 550
Güssinger 8
Peterquelle 0
Juvina 102
Longlife 0
Preblauer 39
Johannisbrunnen 0
Sicheldorfer 0
0 100 200 300 400 500 600





Mineralwasservergleich – Die besten Mineralwasser Österreichs im Vergleich – Unsere Welt – unser Leben (lebens-welt.at)

Mineralstoffe und Spurenelemente im Mineralwasser - Österreich isst informiert (oesterreich-isst-informiert.at)

Kleiner Mineralwasser-Guide | UNIQA Österreich

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