

international

ELEMENTS

Card Game 2 in 1



Happy Families



Trumps



PLAY & LEARN

Gefördert durch



Erasmus+

Schulbildung



c/o: Lohackerstr. 13
44867 Bochum
Germany

Hellweg  **Schule**

seit 1873  STÄDTISCHES GYMNASIUM



Artikelnr.: HS1 Hrsg.: Lars Moser

line for the name in your mother tongue

family letter (A-D)

IUPAC name

CAS group

I A

potassium

D

IUPAC group

1

atomic weight [u]

39,1

atomic number

19

related background picture

symbol

[lat. kalium]



number of protons



electronegativity (PAULING)



percentage in lithosphere, hydrosphere, atmosphere and biosphere



global annual production (metric tons)

I A
1

hydrogen

A

1,0

H

1



p^+

1

EN

2,20



0,88 %



50 000 000 t

IA
1

lithium

B



p^+

3

EN

0,98



0,006 %



55 000 t

IA
1

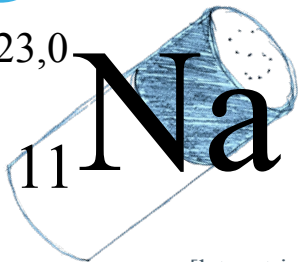
sodium

C

23,0

11

Na



[lat. natrium]

p⁺

11

EN

0,93



2,64 %

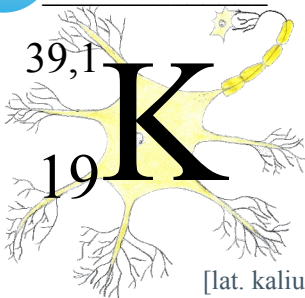


100 000 t

I A
1

potassium

D



p⁺

19

EN

0,82



2,4 %



21 480 000 t *

* in K₂O

II A
2

beryllium

A

9,0

4 Be

p^+

4

EN

1,57



0,000 5 %



200 t

II A
2

magnesium

B

24,3



p⁺

12

EN

1,31



1,94 %

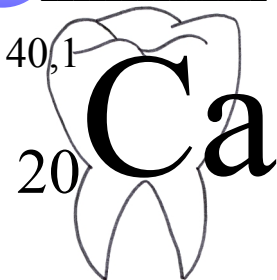


748 000 t

II A
2

calcium

C



20



1,00



3,39 %



24 000 t

II A
2

strontium

D

87,6

38

Sr



p⁺

38

EN

0,95



0,01 %



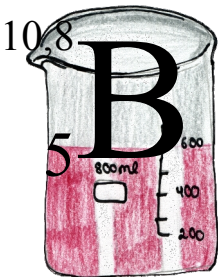
117 000 t *

* in SrSO₄

III A
13

boron

A



5



2,04



0,001 %



4 000 000 t

III A
13

aluminium

B

27,0

13

Al

p^+

13

EN

1,61



7,57 %



44 100 000 t

III A
13

gallium

C

69,7

31

Ga



p^+

31

EN

1,81



0,003 %



184 t

III A
13

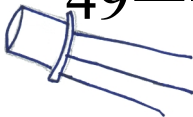
indium

D

114,8

In

49



49



1,78



0,000 01 %



476 t

IV A
14

carbon

A

12,0

6 C



6



2,55



0,087 %



1 305 000 t

IV A
14

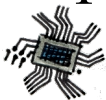
silicon

B

28,1

14

Si



p⁺

14

EN

1,90



25,8 %



8 000 000 t

IV A
14

germanium

C

72,6

32



32



2,01



0,000 6 %



118 t

IV A
14

tin

D

118,7

50

Sn



[lat. stannum]

p⁺

50

EN

1,96



0,003 %

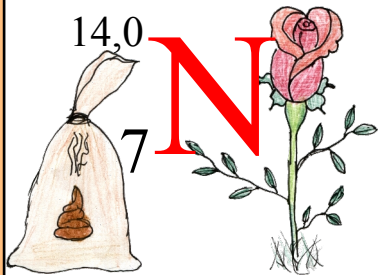


340 000 t

V A
15

nitrogen

A



p⁺

7

EN

3,04



0,03 %



44 000 000 t

V A
15

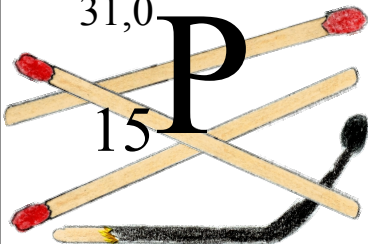
phosphorus

B

31,0

P

15



p⁺

15

EN

2,19



0,09 %



910 000 t

V A
15

arsenic

C

74,9

33

As



p⁺

33

EN

2,18



0,000 55 %



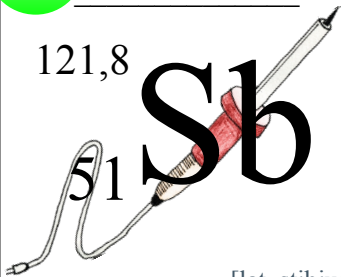
36 500 t

V A
15

antimony

D

121,8



[lat. stibium]

p⁺

51

EN

2,05



0,000 065 %

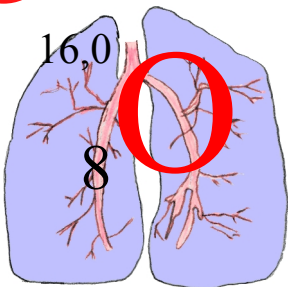


150 000 t

VI A
16

oxygen

A



p^+

8

EN

3,44



49,4 %



100 000 000 t

VI A
16

sulfur

B



p⁺

16

EN

2,58



0,048 %



69 000 000 t

VI A
16

selenium

C

79,0

34

Se



p^+

34

EN

2,55



0,000 08 %



2 000 t

VI A
16

tellurium

D

127,6

52

Te

p^+

52

EN

2,10



0,000 001 %



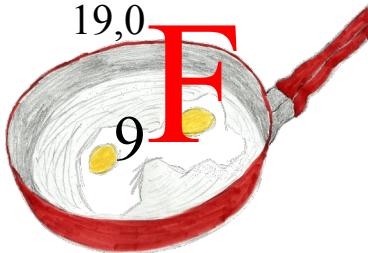
122 t

VII A
17

fluorine

A

19,0



p^+

9

EN

3,98



0,03 %



6 000 000 t *

* in CaF_2

VII A
17

chlorine

B

35,5

17

Cl



p^+

17

EN

3,16



0,19 %



70 000 000 t

VII A
17

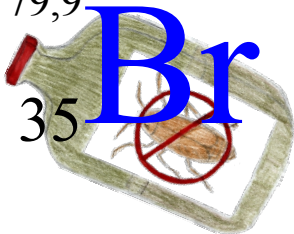
bromine

C

79,9

35

Br



35



2,96



0,000 6 %



556 000 t

VII A
17

iodine

D

126,9

53

I



p⁺

53

EN

2,66



0,000 006 %



33 000 t

VIII A
18

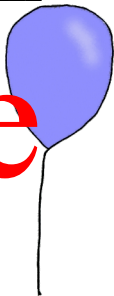
helium

A

4,0

He

2



2



0



0,000 000 4 %



32 000 t

VIII A
18

neon

B

20,2

10

Ne



10



0



0,000 000 5 %



500 t

VIII A
18

argon

C

39,9

18

Ar



18



0



0,000 4 %



700 000 t

VIII A
18

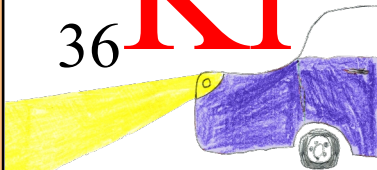
krypton

D

83,8

Kr

36



p⁺

36

EN

0



0,000 000 02 %



8 t