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Ionische binding Formules

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Lijst van 42 Ionische binding Formules

Ionische binding

1) Ionenstraal gegeven Ionisch potentieel

$$fx \quad r_{\text{ionic}} = \frac{q}{\varphi}$$

[Rekenmachine openen !\[\]\(a870788d6ed9b8fd294b7654a8c8526b_img.jpg\)](#)

$$ex \quad 10000A = \frac{0.3C}{300000V}$$

2) Ionisch potentieel

$$fx \quad \varphi = \frac{q}{r_{\text{ionic}}}$$

[Rekenmachine openen !\[\]\(c50c8b7b2cc2cf9ff925edec0ee94c0d_img.jpg\)](#)

$$ex \quad 300000V = \frac{0.3C}{10000A}$$

3) Lading van Ion gegeven Ionisch potentieel

$$fx \quad q = \varphi \cdot r_{\text{ionic}}$$

[Rekenmachine openen !\[\]\(f60b7a900783ac3fd531bfd9c111be6d_img.jpg\)](#)

$$ex \quad 0.3C = 300000V \cdot 10000A$$

Rooster-energie


4) Aantal ionen met Kapustinskii-benadering

$$fx \quad N_{\text{ions}} = \frac{M}{0.88}$$

[Rekenmachine openen !\[\]\(166772600a13ad0a433053f90fe45649_img.jpg\)](#)

$$ex \quad 1.931818 = \frac{1.7}{0.88}$$



5) Afstotende interactieconstante met behulp van totale energie van ionen 


fx

Rekenmachine openen 

$$B = \left(E_{\text{total}} - \left(-\frac{M \cdot (q^2) \cdot ([\text{Charge-e}]^2)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0} \right) \right) \cdot (r_0^n - \{\text{born}\})$$

ex

$$39964.23 = \left(5.79E^{12} \text{J} - \left(-\frac{1.7 \cdot ((0.3\text{C})^2) \cdot ([\text{Charge-e}]^2)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{A}} \right) \right) \cdot ((60\text{A})^{0.9926})$$

6) Born Exponent met behulp van Born Lande-vergelijking 

fx

Rekenmachine openen 

$$n_{\text{born}} = \frac{1}{1 - \frac{-U \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{[\text{Avaga-no}] \cdot M \cdot ([\text{Charge-e}]^2) \cdot z^+ \cdot z^-}}$$

ex

$$0.992649 = \frac{1}{1 - \frac{-3500\text{J/mol} \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{A}}{[\text{Avaga-no}] \cdot 1.7 \cdot ([\text{Charge-e}]^2) \cdot 4\text{C} \cdot 3\text{C}}}$$

7) Born Exponent met behulp van Born-Lande-vergelijking zonder Madelung Constant 

fx

Rekenmachine openen 

$$n_{\text{born}} = \frac{1}{1 - \frac{-U \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{[\text{Avaga-no}] \cdot N_{\text{ions}} \cdot 0.88 \cdot ([\text{Charge-e}]^2) \cdot z^+ \cdot z^-}}$$

ex


$$0.992897 = \frac{1}{1 - \frac{-3500\text{J/mol} \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{A}}{[\text{Avaga-no}] \cdot 2 \cdot 0.88 \cdot ([\text{Charge-e}]^2) \cdot 4\text{C} \cdot 3\text{C}}}$$



8) Born Exponent met behulp van Repulsive Interaction Rekenmachine openen 


$$fx \quad n_{\text{born}} = \frac{\log 10 \left(\frac{B}{E_R} \right)}{\log 10} (r_0)$$

$$ex \quad 0.992644 = \frac{\log 10 \left(\frac{40000}{5.8E^{-12}J} \right)}{\log 10} (60A)$$

9) Buitendruk van rooster Rekenmachine openen 

$$fx \quad P_{LE} = \frac{\Delta H - U}{V_{m_LE}}$$

$$ex \quad 800Pa = \frac{21420J/mol - 3500J/mol}{22.4m^3/mol}$$

10) Constant afhankelijk van samendrukbaarheid met behulp van Born-Mayer-vergelijking Rekenmachine openen 

$$fx \quad \rho = \left(\left(\frac{U \cdot 4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot r_0}{[\text{Avaga-no}] \cdot M \cdot z^+ \cdot z^- \cdot ([\text{Charge-e}]^2)} \right) + 1 \right) \cdot r_0$$

$$ex \quad 60.44435A = \left(\left(\frac{3500J/mol \cdot 4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot 60A}{[\text{Avaga-no}] \cdot 1.7 \cdot 4C \cdot 3C \cdot ([\text{Charge-e}]^2)} \right) + 1 \right) \cdot 60A$$




11) Elektrostatische potentiële energie tussen paar ionen 

$$\text{fx } E_{\text{Pair}} = \frac{-(q^2) \cdot ([\text{Charge-e}]^2)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}$$

Rekenmachine openen 

$$\text{ex } -3.5\text{E}^{-21}\text{J} = \frac{-((0.3\text{C})^2) \cdot ([\text{Charge-e}]^2)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{A}}$$

12) Lattice Enthalpy met behulp van Lattice Energy 

$$\text{fx } \Delta H = U + (P_{\text{LE}} \cdot V_{\text{m_LE}})$$

Rekenmachine openen 

$$\text{ex } 21420\text{J/mol} = 3500\text{J/mol} + (800\text{Pa} \cdot 22.4\text{m}^3/\text{mol})$$

13) Minimale potentiële energie van ionen 

$$\text{fx } E_{\text{min}} = \left(\frac{-(q^2) \cdot ([\text{Charge-e}]^2) \cdot M}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0} \right) + \left(\frac{B}{r_0^n - \{\text{born}\}} \right)$$

Rekenmachine openen 

$$\text{ex } 5.8\text{E}^{12}\text{J} = \left(\frac{-((0.3\text{C})^2) \cdot ([\text{Charge-e}]^2) \cdot 1.7}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{A}} \right) + \left(\frac{40000}{(60\text{A})^{0.9926}} \right)$$


14) Repulsive Interaction Constant 

$$\text{fx } B = E_{\text{R}} \cdot (r_0^n - \{\text{born}\})$$

Rekenmachine openen 

$$\text{ex } 40033.26 = 5.8\text{E}^{12}\text{J} \cdot ((60\text{A})^{0.9926})$$



15) Roosterenergie met behulp van Born Lande-vergelijking 

fx

Rekenmachine openen 

$$U = - \frac{[\text{Avaga-no}] \cdot M \cdot z^+ \cdot z^- \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{1}{n_{\text{born}}}\right)\right)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}$$

$$\text{ex } 3523.343\text{J/mol} = - \frac{[\text{Avaga-no}] \cdot 1.7 \cdot 4\text{C} \cdot 3\text{C} \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{1}{0.9926}\right)\right)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{\AA}}$$


16) Roosterenergie met behulp van de Born-Lande-vergelijking met behulp van Kapustinskii Approximation 

fx

Rekenmachine openen 

$$U = - \frac{[\text{Avaga-no}] \cdot N_{\text{ions}} \cdot 0.88 \cdot z^+ \cdot z^- \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{1}{n_{\text{born}}}\right)\right)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}$$

$$\text{ex } 3647.696\text{J/mol} = - \frac{[\text{Avaga-no}] \cdot 2 \cdot 0.88 \cdot 4\text{C} \cdot 3\text{C} \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{1}{0.9926}\right)\right)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{\AA}}$$

17) Roosterenergie met behulp van de Born-Mayer-vergelijking 

fx

Rekenmachine openen 

$$U = \frac{-[\text{Avaga-no}] \cdot M \cdot z^+ \cdot z^- \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{\rho}{r_0}\right)\right)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}$$

$$\text{ex } 3465.763\text{J/mol} = \frac{-[\text{Avaga-no}] \cdot 1.7 \cdot 4\text{C} \cdot 3\text{C} \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{60.44\text{\AA}}{60\text{\AA}}\right)\right)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{\AA}}$$



18) Rooster-energie met behulp van de originele Kapustinskii-vergelijking 


fx

Rekenmachine openen 

$$U_{\text{Kapustinskii}} = \frac{\left(\left(\frac{[\text{Kapustinskii_C}]}{1.20200} \right) \cdot 1.079 \right) \cdot N_{\text{ions}} \cdot z^+ \cdot z^-}{R_c + R_a}$$

ex

$$222283.3\text{J/mol} = \frac{\left(\left(\frac{[\text{Kapustinskii_C}]}{1.20200} \right) \cdot 1.079 \right) \cdot 2 \cdot 4\text{C} \cdot 3\text{C}}{65\text{\AA} + 51.5\text{\AA}}$$

19) Rooster-energie met behulp van Kapustinskii-vergelijking 


fx

Rekenmachine openen 

$$U_{\text{Kapustinskii}} = \frac{1.20200 \cdot (10^{-4}) \cdot N_{\text{ions}} \cdot z^+ \cdot z^- \cdot \left(1 - \left(\frac{3.45 \cdot (10^{-11})}{R_c + R_a} \right) \right)}{R_c + R_a}$$

ex

$$246889\text{J/mol} = \frac{1.20200 \cdot (10^{-4}) \cdot 2 \cdot 4\text{C} \cdot 3\text{C} \cdot \left(1 - \left(\frac{3.45 \cdot (10^{-11})}{65\text{\AA} + 51.5\text{\AA}} \right) \right)}{65\text{\AA} + 51.5\text{\AA}}$$

20) Rooster-energie met behulp van rooster-enthalpie 

fx

Rekenmachine openen 

$$U = \Delta H - (P_{\text{LE}} \cdot V_{\text{m_LE}})$$

ex

$$3500\text{J/mol} = 21420\text{J/mol} - (800\text{Pa} \cdot 22.4\text{m}^3/\text{mol})$$

21) Totale energie van ionen gegeven ladingen en afstanden 

fx

Rekenmachine openen 

$$E_{\text{total}} = \left(\frac{-(q^2) \cdot ([\text{Charge-e}]^2) \cdot M}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot r_0} \right) + \left(\frac{B}{r_0^n - \{\text{born}\}} \right)$$

ex

$$5.8\text{E}^{\wedge}12\text{J} = \left(\frac{-((0.3\text{C})^2) \cdot ([\text{Charge-e}]^2) \cdot 1.7}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot 60\text{\AA}} \right) + \left(\frac{40000}{(60\text{\AA})^{0.9926}} \right)$$



22) Totale energie van ionen in rooster 

$$fx \quad E_{\text{total}} = E_M + E_R$$

Rekenmachine openen 

$$ex \quad 5.8E^{12}J = -5.9E^{-21}J + 5.8E^{12}J$$

23) Volumeverandering van rooster 

$$fx \quad V_{m_LE} = \frac{\Delta H - U}{P_{LE}}$$

Rekenmachine openen 

$$ex \quad 22.4m^3/mol = \frac{21420J/mol - 3500J/mol}{800Pa}$$

24) Weerzinwekkende interactie 

$$fx \quad E_R = \frac{B}{r_0^n - \{\text{born}\}}$$

Rekenmachine openen 


$$ex \quad 5.8E^{12}J = \frac{40000}{(60A)^{0.9926}}$$

25) Weerzinwekkende interactie constante gegeven Madelung constante 

$$fx \quad B_M = \frac{M \cdot (q^2) \cdot ([\text{Charge-e}]^2) \cdot (r_0^{n_{\text{born}}-1})}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot n_{\text{born}}}$$

Rekenmachine openen 

$$ex \quad 4.1E^{-29} = \frac{1.7 \cdot ((0.3C)^2) \cdot ([\text{Charge-e}]^2) \cdot ((60A)^{0.9926-1})}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 0.9926}$$


26) Weerzinwekkende interactie Constante gegeven totale energie van ionen- en madelung-energie 

$$fx \quad B = (E_{\text{total}} - (E_M)) \cdot (r_0^n - \{\text{born}\})$$

Rekenmachine openen 

$$ex \quad 39964.23 = (5.79E^{12}J - (-5.9E^{-21}J)) \cdot ((60A)^{0.9926})$$




27) Weerzinwekkende interactie met behulp van totale energie van ionen 

$$fx \quad E_R = E_{total} - (E_M)$$

Rekenmachine openen 


$$ex \quad 5.8E^{12}J = 5.79E^{12}J - (-5.9E^{-21}J)$$

28) Weerzinwekkende interactie met behulp van totale energie van ionen gegeven ladingen en afstanden 

$$fx \quad E_R = E_{total} - \frac{-(q^2) \cdot ([Charge-e]^2) \cdot M}{4 \cdot \pi \cdot [Permittivity-vacuum] \cdot r_0}$$

Rekenmachine openen 

$$ex \quad 5.8E^{12}J = 5.79E^{12}J - \frac{-((0.3C)^2) \cdot ([Charge-e]^2) \cdot 1.7}{4 \cdot \pi \cdot [Permittivity-vacuum] \cdot 60A}$$

Afstand van dichtste nadering 29) Afstand van dichtste nadering met behulp van Born Lande-vergelijking 

fx

Rekenmachine openen 

$$r_0 = - \frac{[Avaga-no] \cdot M \cdot z^+ \cdot z^- \cdot ([Charge-e]^2) \cdot \left(1 - \left(\frac{1}{n_{born}}\right)\right)}{4 \cdot \pi \cdot [Permittivity-vacuum] \cdot U}$$

$$ex \quad 60.40016A = - \frac{[Avaga-no] \cdot 1.7 \cdot 4C \cdot 3C \cdot ([Charge-e]^2) \cdot \left(1 - \left(\frac{1}{0.9926}\right)\right)}{4 \cdot \pi \cdot [Permittivity-vacuum] \cdot 3500J/mol}$$



30) Afstand van dichtste nadering met behulp van Born-Lande-vergelijking zonder Madelung-constante

fx

Rekenmachine openen 

$$r_0 = - \frac{[\text{Avaga-no}] \cdot N_{\text{ions}} \cdot 0.88 \cdot z^+ \cdot z^- \cdot \left([\text{Charge-e}]^2 \right) \cdot \left(1 - \left(\frac{1}{n_{\text{born}}} \right) \right)}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot U}$$

ex

$$62.53193\text{A} = - \frac{[\text{Avaga-no}] \cdot 2 \cdot 0.88 \cdot 4\text{C} \cdot 3\text{C} \cdot \left([\text{Charge-e}]^2 \right) \cdot \left(1 - \left(\frac{1}{0.9926} \right) \right)}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot 3500\text{J/mol}}$$

31) Afstand van dichtste nadering met behulp van elektrostatisch potentiaal

fx

Rekenmachine openen 

$$r_0 = \frac{-(q^2) \cdot \left([\text{Charge-e}]^2 \right)}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot E_{\text{Pair}}}$$

ex

$$59.35292\text{A} = \frac{-\left((0.3\text{C})^2 \right) \cdot \left([\text{Charge-e}]^2 \right)}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot -3.5\text{E}^{-21}\text{J}}$$

32) Afstand van dichtste nadering met behulp van Madelung Energy

fx

Rekenmachine openen 

$$r_0 = - \frac{M \cdot (q^2) \cdot \left([\text{Charge-e}]^2 \right)}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot E_{\text{M}}}$$

ex

$$59.85591\text{A} = - \frac{1.7 \cdot \left((0.3\text{C})^2 \right) \cdot \left([\text{Charge-e}]^2 \right)}{4 \cdot \pi \cdot [\text{Permitivity-vacuum}] \cdot -5.9\text{E}^{-21}\text{J}}$$



Madelung Constant 33) Madelung Constant gegeven Repulsive Interaction Constant 

$$fx \quad M = \frac{B_M \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot n_{\text{born}}}{(q^2) \cdot ([\text{Charge-e}]^2) \cdot (r_0^{n_{\text{born}}-1})}$$

Rekenmachine openen 

$$ex \quad 1.702967 = \frac{4.1E^{-29} \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 0.9926}{((0.3C)^2) \cdot ([\text{Charge-e}]^2) \cdot ((60A)^{0.9926-1})}$$

34) Madelung Constant met behulp van Born Lande-vergelijking 

$$fx \quad M = \frac{-U \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{\left(1 - \left(\frac{1}{n_{\text{born}}}\right)\right) \cdot ([\text{Charge-e}]^2) \cdot [\text{Avaga-no}] \cdot z^+ \cdot z^-}$$

Rekenmachine openen 

$$ex \quad 1.688737 = \frac{-3500J/mol \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60A}{\left(1 - \left(\frac{1}{0.9926}\right)\right) \cdot ([\text{Charge-e}]^2) \cdot [\text{Avaga-no}] \cdot 4C \cdot 3C}$$

35) Madelung Constant met behulp van de Born-Mayer-vergelijking 

$$fx \quad M = \frac{-U \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{[\text{Avaga-no}] \cdot z^+ \cdot z^- \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{\rho}{r_0}\right)\right)}$$

Rekenmachine openen 

$$ex \quad 1.716794 = \frac{-3500J/mol \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60A}{[\text{Avaga-no}] \cdot 4C \cdot 3C \cdot ([\text{Charge-e}]^2) \cdot \left(1 - \left(\frac{60.44A}{60A}\right)\right)}$$

36) Madelung Constant met behulp van Kapustinskii Approximation 

$$fx \quad M = 0.88 \cdot N_{\text{ions}}$$

Rekenmachine openen 

$$ex \quad 1.76 = 0.88 \cdot 2$$




37) Madelung Constant met behulp van totale energie van ionen 

fx

Rekenmachine openen 

$$M = \frac{\left(E_{\text{tot}} - \left(\frac{B_M}{r_0^n} \right) \right) \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{-(q^2) \cdot ([\text{Charge-e}]^2)}$$

$$\text{ex } 1.695387 = \frac{\left(7.02E^{-23}\text{J} - \left(\frac{4.1E^{-29}}{(60A)^{0.9926}} \right) \right) \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60A}{-\left((0.3C)^2 \right) \cdot ([\text{Charge-e}]^2)}$$

38) Madelung Constant met behulp van totale energie van ionen gegeven afstotende interactie 

fx

Rekenmachine openen 

$$M = \frac{(E_{\text{tot}} - E) \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{-(q^2) \cdot ([\text{Charge-e}]^2)}$$

$$\text{ex } 1.692481 = \frac{(7.02E^{-23}\text{J} - 5.93E^{-21}\text{J}) \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60A}{-\left((0.3C)^2 \right) \cdot ([\text{Charge-e}]^2)}$$

39) Madelung Constant met Madelung Energy 


fx

Rekenmachine openen 

$$M = \frac{-(E_M) \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}{(q^2) \cdot ([\text{Charge-e}]^2)}$$

$$\text{ex } 1.704092 = \frac{-(-5.9E^{-21}\text{J}) \cdot 4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60A}{\left((0.3C)^2 \right) \cdot ([\text{Charge-e}]^2)}$$



40) Madelung Energy 

$$\text{fx } E_M = - \frac{M \cdot (q^2) \cdot ([\text{Charge-e}]^2)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot r_0}$$

Rekenmachine openen 

$$\text{ex } -5.9\text{E}^{-21}\text{J} = - \frac{1.7 \cdot ((0.3\text{C})^2) \cdot ([\text{Charge-e}]^2)}{4 \cdot \pi \cdot [\text{Permittivity-vacuum}] \cdot 60\text{A}}$$

41) Madelung-energie met behulp van totale energie van ionen 

$$\text{fx } E_M = E_{\text{tot}} - E$$

Rekenmachine openen 

$$\text{ex } -5.9\text{E}^{-21}\text{J} = 7.02\text{E}^{-23}\text{J} - 5.93\text{E}^{-21}\text{J}$$

42) Madelung-energie met behulp van totale energie van ionen gegeven afstand 

$$\text{fx } E_M = E_{\text{tot}} - \left(\frac{B_M}{r_0^n - \{\text{born}\}} \right)$$

Rekenmachine openen 

$$\text{ex } -5.9\text{E}^{-21}\text{J} = 7.02\text{E}^{-23}\text{J} - \left(\frac{4.1\text{E}^{-29}}{(60\text{A})^{0.9926}} \right)$$







Variabelen gebruikt

- **B** Weerzinwekkende interactie constante
- **B_M** Weerzinwekkende interactieconstante gegeven M
- **E** Weerzinwekkende interactie tussen ionen (*Joule*)
- **E_M** Madelung energie (*Joule*)
- **E_{min}** Minimale potentiële energie van ionen (*Joule*)
- **E_{Pair}** Elektrostatistische potentiële energie tussen ionenpaar (*Joule*)
- **E_R** Weerzinwekkende interactie (*Joule*)
- **E_{tot}** Totale energie van ionen in een ionisch kristal (*Joule*)
- **E_{total}** Totale energie van ionen (*Joule*)
- **M** Madelung Constant
- **n_{born}** Geboren exponent
- **N_{ions}** Aantal ionen
- **p_{LE}** Drukrooster Energie (*Pascal*)
- **q** Aanval (*Coulomb*)
- **r₀** Afstand van dichtste nadering (*Angstrom*)
- **R_a** Straal van anion (*Angstrom*)
- **R_c** Straal van kation (*Angstrom*)
- **r_{ionic}** Ionische straal (*Angstrom*)
- **U** Rooster Energie (*Joule / Mol*)
- **U_{Kapustinskii}** Roosterenergie voor Kapustinskii-vergelijking (*Joule / Mol*)
- **V_{m_LE}** Molair Volume Rooster Energie (*Kubieke meter / Mole*)
- **z⁻** Lading van anion (*Coulomb*)
- **z⁺** Lading van kation (*Coulomb*)
- **ΔH** Rooster Enthalpie (*Joule / Mol*)
- **ρ** Constant Afhankelijk van de samendrukbaarheid (*Angstrom*)
- **φ** Ionisch potentieel (*Volt*)



Constanten, functies, gebruikte metingen

- **Constante:** **pi**, 3.14159265358979323846264338327950288
Archimedes' constant
- **Constante:** **[Avaga-no]**, 6.02214076E23
Avogadro's number
- **Constante:** **[Charge-e]**, 1.60217662E-19 Coulomb
Charge of electron
- **Constante:** **[Kapustinskii_C]**, 1.20200×10^{-4} Joule Meter / Mole
Kapustinskii constant
- **Constante:** **[Permittivity-vacuum]**, 8.85E-12 Farad / Meter
Permittivity of vacuum
- **Functie:** **log10**, log10(Number)
Common logarithm function (base 10)
- **Meting:** **Lengte** in Angstrom (A)
Lengte Eenheidsconversie 
- **Meting:** **Druk** in Pascal (Pa)
Druk Eenheidsconversie 
- **Meting:** **Energie** in Joule (J)
Energie Eenheidsconversie 
- **Meting:** **Elektrische lading** in Coulomb (C)
Elektrische lading Eenheidsconversie 
- **Meting:** **Elektrisch potentieel** in Volt (V)
Elektrisch potentieel Eenheidsconversie 
- **Meting:** **Molaire magnetische gevoeligheid** in Kubieke meter / Mole (m^3/mol)
Molaire magnetische gevoeligheid Eenheidsconversie 
- **Meting:** **Molaire Enthalpie** in Joule / Mol (J/mol)
Molaire Enthalpie Eenheidsconversie 



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- **Covalente binding Formules** 
- **Elektronegativiteit Formules** 
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