

Significant comments

#	Description	Link to source/ comments
0	All data presented in the SI system	https://en.wikipedia.org/wiki/International_System_of_Units
1	Proton and neutron consist of a core and two shells around them	Robert Hofstadter the Nobel laureate
2	The proton consists of two quarks "u" and a quark "d"	Murray Gell-Mann the Nobel laureate, and George Zweig
3	The neutron consists of two quarks "d" and a quark "u"	Murray Gell-Mann the Nobel laureate, and George Zweig
4	"Conditional quark" consists of a core and two shells	The assumption of the author
5	Quark radius "- (0.47 · 10E-16 cm) ² < RE ² < (0.43 · 10E-16 cm) ² "	https://arxiv.org/pdf/1604.01280.pdf
6	Proton, a neutron can be represented as the sum of three matrices	The mathematical derivation of the author
7	{x1, x2, x3, 0, 0} + {0, y1, y2, y3, 0} + {0, 0, x1, x2, x3}	View of three matrices for obtaining a proton, neutron
8	x1, y1 - quark cores	Usually, quarks proper in today's a view
9	{x1, x2+y1, x3+y2+x1, y3+x2, x3}	A schematic view of the matrix for a proton, neutron
10	{x1, x2+y1, x3+y2+x1} - quark core	x1, y1 - quark cores
11	{y3+x2, x3} - quark shells	x1, y1 - absent
12	The proposed approach allows one to obtain many different particles	Calculation:quarks "u", "d", proton, neutron, pseudo proton, pseudo neutron
13	$\pi = 3.14159265358979$	https://en.wikipedia.org/wiki/Pi

14	Planck's constant, $h = 6.62607015E-34$	https://en.wikipedia.org/wiki/Planck_constant
15	Compton wavelength, $\lambda = h/mc$	https://en.wikipedia.org/wiki/Compton_wavelength
16	Speed of light in a vacuum, $c = 299792458$	https://en.wikipedia.org/wiki/Speed_of_light
17	Electrical constant, $\epsilon_0 = 8.85418781762039E-12$	https://en.wikipedia.org/wiki/Vacuum_permittivity
18	Gravitational constant, $G = 6.67448478E-11$	newton per square meter per kilogram for the AAF method

Values of quarks 'u' and 'd' by shells in Q_e (electron charges)

#	Index	Charge in the Q_e
1	uq1	0.06666666666666665
2	uq2	0.5
3	uq3	0.15
4	dq1	0.06666666666666665
5	dq2	-0.5
6	dq3	0.15

Values of quarks "u" by shells

#	Charge sym.	Charge in C_1	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	uq11	1.0681177472653331e-20	um1	4.477669835812132e-28	uv1	-2.560432919260719e-44
2	uq21	8.01088310449e-20	um2	2.6285989484434786e-29	uv2	1.1428590474984059e-44
3	uq31	2.403264931347e-20	um3	1.2424998364766522e-28	uv3	5.402125647480323e-44

Values of quarks "d" by shells

#	Charge sym.	Charge in C_1	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	dq11	1.0681177472653331e-20	dm1	4.49693787663576e-28	dv1	-2.5604329192607184e-44
2	dq21	-8.01088310449e-20	dm2	2.632222259979773e-29	dv2	1.1428590474984059e-44

3	dq31	2.403264931347e-20	dm3	1.2442125222380227e-28	dv3	5.402125647480323e-44
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Detailed description for proton by shells

#	Charge sym.	Charge in Cl	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	pq1	1.0681177472653331e-20	pm1	4.477669835812132e-28	pv1	-2.560432919260719e-44
2	pq2	8.01088310449e-20	pm2	2.6285989484434786e-29	pv2	1.1428590474984059e-44
3	pq3	1.0681177472653331e-20	pm3	4.49693787663576e-28	pv3	-2.5604329192607184e-44
4	pq4	2.403264931347e-20	pm4	1.2424998364766522e-28	pv4	5.402125647480323e-44
5	pq5	1.0681177472653331e-20	pm5	4.477669835812132e-28	pv5	-2.560432919260719e-44
6	pq6	-8.01088310449e-20	pm6	2.632222259979773e-29	pv6	1.1428590474984059e-44
7	pq7	2.403264931347e-20	pm7	1.2442125222380227e-28	pv7	5.402125647480323e-44
8	pq8	8.01088310449e-20	pm8	2.6285989484434786e-29	pv8	1.1428590474984059e-44
9	pq9	2.403264931347e-20	pm9	1.2424998364766522e-28	pv9	5.402125647480323e-44

Detailed description for neutron, by shells

#	Charge sym.	Charge in Cl	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	nq1	1.0681177472653331e-20	nm1	4.49693787663576e-28	nv1	-2.5604329192607184e-44
2	nq2	-8.01088310449e-20	nm2	2.632222259979773e-29	nv2	1.1428590474984059e-44
3	nq3	1.0681177472653331e-20	nm3	4.477669835812132e-28	nv3	-2.560432919260719e-44
4	nq4	2.403264931347e-20	nm4	1.2442125222380227e-28	nv4	5.402125647480323e-44
5	nq5	1.0681177472653331e-20	nm5	4.49693787663576e-28	nv5	-2.5604329192607184e-44
6	nq6	8.01088310449e-20	nm6	2.6285989484434786e-29	nv6	1.1428590474984059e-44
7	nq7	2.403264931347e-20	nm7	1.2424998364766522e-28	nv7	5.402125647480323e-44
8	nq8	-8.01088310449e-20	nm8	2.632222259979773e-29	nv8	1.1428590474984059e-44
9	nq9	2.403264931347e-20	nm9	1.2442125222380227e-28	nv9	5.402125647480323e-44

Values of quarks 'u' and 'd' by
shells in Qe (electron charges)
for pseudo particles

#	Index	Charge in the Qe
1	psuq1	1.166666666666667

2	psuq2	-0.6500000000000001
3	psuq3	0.15
4	psdq1	-0.8333333333333334
5	psdq2	0.35
6	psdq3	0.15

Values of quarks "u" by shells for pseudo particles

#	Charge sym.	Charge in Cl	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	psuq11	1.8692060577143335e-19	psum1	5.302786252707322e-28	psuv1	1.0409841790594949e-44
2	psuq21	-1.0414148035837002e-19	psum2	-9.792776104786757e-29	psuv2	-4.2592665999819155e-44
3	psuq31	2.4032649313470004e-20	psum3	1.2442125222380227e-28	psuv3	5.402125647480323e-44

Values of quarks "d" by shells for pseudo particles

#	Charge sym.	Charge in Cl	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	psdq11	-1.3351471840816668e-19	psdm1	5.329629698883688e-28	psdv1	1.0409841790594973e-44
2	psdq21	5.607618173143e-20	psdm2	-9.813526273936748e-29	psdv2	-4.259266599981917e-44
3	psdq31	2.403264931347e-20	psdm3	1.2424998364766522e-28	psdv3	5.402125647480323e-44

Detailed description for pseudo proton by shells

#	Charge sym.	Charge in Cl	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	pspq1	1.8692060577143335e-19	pspm1	5.302786252707322e-28	pspv1	1.0409841790594949e-44
2	pspq2	-1.0414148035837002e-19	pspm2	-9.792776104786757e-29	pspv2	-4.2592665999819155e-44
3	pspq3	-1.3351471840816668e-19	pspm3	5.329629698883688e-28	pspv3	1.0409841790594973e-44
4	pspq4	2.4032649313470004e-20	pspm4	1.2442125222380227e-28	pspv4	5.402125647480323e-44
5	pspq5	1.8692060577143335e-19	pspm5	5.302786252707322e-28	pspv5	1.0409841790594949e-44
6	pspq6	5.607618173143e-20	pspm6	-9.813526273936748e-29	pspv6	-4.259266599981917e-44
7	pspq7	2.403264931347e-20	pspm7	1.2424998364766522e-28	pspv7	5.402125647480323e-44
8	pspq8	-1.0414148035837002e-19	pspm8	-9.792776104786757e-29	pspv8	-4.2592665999819155e-44
9	pspq9	2.4032649313470004e-20	pspm9	1.2442125222380227e-28	pspv9	5.402125647480323e-44

Detailed description for pseudo neutron by shells

#	Charge sym.	Charge in Cl	Mass sym.	Mass in kg.	Volume sym.	Volume in cbm
1	psnq1	-1.3351471840816668e-19	psnm1	5.329629698883688e-28	psnv1	1.0409841790594973e-44
2	psnq2	5.607618173143e-20	psnm2	-9.813526273936748e-29	psnv2	-4.259266599981917e-44
3	psnq3	1.8692060577143335e-19	psnm3	5.302786252707322e-28	psnv3	1.0409841790594949e-44
4	psnq4	2.403264931347e-20	psnm4	1.2424998364766522e-28	psnv4	5.402125647480323e-44
5	psnq5	-1.3351471840816668e-19	psnm5	5.329629698883688e-28	psnv5	1.0409841790594973e-44
6	psnq6	-1.0414148035837002e-19	psnm6	-9.792776104786757e-29	psnv6	-4.2592665999819155e-44
7	psnq7	2.4032649313470004e-20	psnm7	1.2442125222380227e-28	psnv7	5.402125647480323e-44
8	psnq8	5.607618173143e-20	psnm8	-9.813526273936748e-29	psnv8	-4.259266599981917e-44
9	psnq9	2.403264931347e-20	psnm9	1.2424998364766522e-28	psnv9	5.402125647480323e-44