Exercise 10 product rule home

And the exchange between radial and angular momentum in coherence of the dark solar medium

Exercise 10 The internal generation of gravity in the Sun
Show by applying the substitution principle that the angular momentum constitutes two double rotations one for $\lambda = 54.8$ and one for $\lambda = 38.7 \times 1.1547 = 44.7$ m as frequencies for the radii of respectively $9.9\ 10^8$ and $8.08\ 10^8$ m at $R_o = 7\ 10^8$ m corresponding to energy wavelength of 3000, 2000 and 1500 m as event radius.
Comment 2021, Firstly The product rule:
N_1 is the number of atoms in state 1 and N_2 the number of atoms in state 2 then with the $\sqrt{N_o}$ the product of $(\sqrt{N_o} - N_1)\ N_2 = (\sqrt{N_o} - N_2)\ N_2$ is constant. The two states of the solar mass are for two moments of time with N_1 and N_2 of the order of $\sqrt{N_o}$ maintaining the ratio for dynamic conjugated exchange. See chap 7 par 6.
As a static ratio N_1 / N_2 is a constant but for two time moments these are absolute with respect to the number of electrons in R_o or dm radius for the angular momentum. So in fact the end conclusion of exer 4 and 5 is maintained , the sole hydrogen balance to time, but $\sqrt{N_o}$ can have $\sqrt{\{R_{med}(Z)\}}$ for the mediating mass as a free parameter constant. Further note that the 2nd power of the production rule relates $\sqrt{N_o}$ to N_1 or N_2 keeping the ratio N_1 / N_2 unperturbed.

Now, just as above for exercise 9:
The work of the electron at the escape velocity is:
$m_e\ g\ R_o = 9.109\ 10^{-31} \times 276 \times 7.0\ 10^8 = 1.76\ 10^{-19}$ Joule divided by $1.602\ 10^{-19}$ Coulomb
gives 1.099 eV with $g = 276$ m/sec^2 and $\frac{1}{2}v^2 = g\ R_o$ giving $v = 6.22\ 10^5$ m/sec.

Calculate the angular momentum of the electron at 38.7 m wavelength:
$b_o = m_e\ (2\ \pi\ c/38.7)\ R_o = 3.106\ 10^{-14}$ kg m
Apply $b_o = g\ (h/c)$ which is from previous calculations $6.1\ 10^{-40}$ kg m. Determine the number of contributing atoms based on 251 m_e as atomic mass.
$N = 3.106\ 10^{-14} / 6.1\ 10^{-40} = 5.091\ 10^{25}$ at. Remember the solar mass is $8.75\ 10^{57}$ at.
Follow above procedure for loss less free exchange to the dark matter cells:
$1.099 / 5.87\ 10^{-6} = 1.871\ 10^5$ for the escape velocity of 622 km /sec
$13.6 / 5.87\ 10^{-6} = 2.32\ 10^6$ as the maximum loss free ratio for exchange (13.6 eV ionisation).
Then
$\sqrt{(8.75\ 10^{57} / 1.871\ 10^5)} = 21.623\ 10^{25}$ at and $\sqrt{(8.75\ 10^{57} / 2.32\ 10^6)} = 6.141\ 10^{25}$
Determine the ratios:
$21.623 / 5.091 = 4.249 = 3.004 \times \sqrt{2}$ $6.141 / 5.091 = 1.21 = \sqrt{1.5} / 1.012$
So if $N = 6.141\ 10^{25}$ becomes less than $5.091\ 10^{25}$ then gravity generation cannot work.
Both the factors 3 and $\sqrt{1.5}$ suggest that in relation to the wavelengths $\sqrt{2} \times 38.7$ and $38.7 / \sqrt{1.5}$ are important and common to any process of gravity generation.

Repeat the calculations for $R_o = 7\ 10^9$ m giving $g = 2.76$ m/sec^2
$W = m_e\ g\ R = 9.109\ 10^{-31} \times 2.76 \times 7\ 10^9 = 1.76\ 10^{-20}$ joule or 0.1099 eV
$b = h/c\ g = 6.1\ 10^{-42}$ $b = 2\pi\ c/38.7 \times 7\ 10^9 = 3.106\ 10^{-13}$ with $N = 5.091\ 10^{28}$ at
and
$0.1099 / 5.87\ 10^{-6} = 1.87\ 10^4$ giving $\sqrt{(8.75\ 10^{57} / 1.87\ 10^4)} = 6.84\ 10^{26}$ at
As expected $5.091\ 10^{28} > 6.84\ 10^{26}$ and $\sqrt{8.75\ 10^{57}} = 9.3\ 10^{28}$ is the other limit to $5.091\ 10^{28}$.

Conclusion:
If $W < 1.099$ eV then $R_o > R_{dm}$ while at $R_o = 7\ 10^8$ m then $R_{dm} = R_o$ with two options for the lossless exchange to the atoms:
$N_2 = 21.63\ 10^{25}$ and $N_o = 5.091\ 10^{25}$ at
ratio: $21.63 / 5.091 = 3 \times \sqrt{2} \times 1.0014$ with 1.0014 as truncation deviation.
And $N_1 = 1.641\ 10^{25}$ and $N_o = 5.091\ 10^{25}$ at
ratio: $1.21 = \sqrt{1.5} \times (1 / 1.012)$ with 1.012 as deviation.

Both these ratios of $3\sqrt{2}$ and $\sqrt{1.5}$ are important to exchange sequential pumping in gravity generation over a time interval.

So there are two options for gravity generation:

1. All those below the threshold of 1.099 eV
2. All those above this threshold up to $N_{max} = 9.354\ 10^{28}$ at. Discussed at exercise 13.

Point 1 The supposition of quantum qubit exchange of the Lamb shifts
To bring point 1 and 2 in agreement, all atomic processes should be the same in both situations.
It means in the examples above:

$13.6 / 5.87\ 10^{-6} = 2.32\ 10^{6}$ quanta as maximum.

and $1.099 / 5.87\ 10^{-6} = 1.87\ 10^{5}$ or $0.1099 / 5.87\ 10^{-6} = 1.87\ 10^{4}$ quanta

In that manner the production densities of $6.84\ 10^{26}$ at:

$b = 6.1\ 10^{-42}\ N = m_e 2\pi\ c/38.7\ R_{dm}$ giving $R_{dm} = 9.40\ 10^{8}$ m making:

$4.247 \times 6.84\ 10^{26}$ and $\sqrt{1.5} \times 6.84\ 10^{26}$ while $(4.247 \times 6.84\ 10^{26})$ is the zero state and $\sqrt{1.5}$ belongs to the escape velocity or work done by the dark matter medium under gravity constraint giving ratio one the highest energy state .

The electromagnetic energy apart from the balanced angular momentum
The two energy states of dm atoms contributing to the angular momentum are small, order of 10^{25} at, compared to the overall square root of the number of atoms of $\sqrt{8.75}\ 10^{57} = 9.354\ 10^{28}$ at. The question why always an electron decomposition by conjugation in magnetic energy and not dielectric is given in chap 2 par 4.1.

Second conclusion: By introducing $N_o = 1.195\ 10^{57}$ as solely H atoms the b_o determines $N = 5.091\ 10^{25}$ atoms as an absolute threshold. The N's for $21.6\ 10^{25}$ and $6.1\ 10^{25}$ atoms change value. The 1st slightly above and the 2nd below this threshold. So the choice of the mediating mass is correct. Further by using the mediating mass for N_o there is an overproduction of electrons between the states of the $\sqrt{}$-atoms which maintains the statement that it is a fast dynamic network compared to the normal inertia state of the hydrogen. Show it.The square root of H atom and mediating mass is $\sqrt{7.235} = 2.71$. Now $4.2426 / 2.71 = 1.5565$ N(ionisation) and $\sqrt{1.5} / 2.71 = 0.452$ N(escape) then with N(electron) $5.091\ 10^{25}$ then $1.5565 / 5.091 = 0.3101$ and $0.0452 / 5.091 = 0.08878$ with ratio 3.493 while $4.2426 / \sqrt{1.5} = 3.46$ (truncations). So equal. The H atom N's are far below the needing of the electrons.

home