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# Mass Stability & Astrotheology

*Paul T E Cusack, BScE, Dule*

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Simon's 12 th problem is the list of unsolved math-physics problems on Wikipedia states that we need to establish molecular structure from first principles. In this paper, that is what we do; from the individual atoms to the periodic table, to the benzene ring, we see the energy is always conserved. It is assumed that the reader is familiar with AT Math. If there was any doubt that Astro theology is the theory that explains the physical universe (as well as the spiritual), they can be laid to rest after reading this paper.

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# Mass Stability & Astrotheology

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## ABSTRACT

*Simon's 12 th problem is the list of unsolved math-physics problems on Wikipedia states that we need to establish molecular structure from first principles. In this paper, that is what we do; from the individual atoms to the periodic table, to the benzene ring, we see the energy is always conserved. It is assumed that the reader is familiar with AT Math. If there was any doubt that Astro theology is the theory that explains the physical universe (as well as the spiritual), they can be laid to rest after reading this paper.*

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## I. INTRODUCTION

*Simon's 12 th problem in the 2000 list:*

Is there a mathematical sense in which one can justify current techniques for determining molecular configurations from first principles? Source: Wikipedia.

There are two forces in nature, one that draws together and the other that pushes apart. They are gravity and coulombic forces. We will show that the Mass in the universe is the result of these two opposing forces working against each other.

$$6.67/1.602=0.24017$$

$$GMP \Rightarrow t^2-t-1=E$$

$0.2401^2-0.2401-1=1.18249$ =Mass of the Period Table of the elements.

The 118th element is Og.

$$118/118249=-0.99789$$

There are 32 elements in the 7th Period, or 32 elements. The Mass of an electron =5.1099mEv

$$-0.99789/(32 \times 5.1099)=6.10267$$

Orbitals

$$\{2+8+8+18+18+32+32\} \times 5.1099=602.9682=1/98.8 \approx 99$$

$$\text{Mass H}+=1.0079 \rightarrow \text{Mass Og}=294$$

$$\Delta M=292.99 \approx 293$$

$$292-392=198=t$$

$$198-981=693=\ln 2=M$$

$$693-936=297=c$$

$$297-792=495=E$$

$$495-549=99=E$$

99-99=0 Convergent

198 x 693 x 297 x 495x99=1997~2

t=2

GMP $\Rightarrow 2^2-2-1=E=1$

Oganessian #118

118 p+ x938.27208816

118 e- x 5.1099

118.4(943.3819)=111696+1/2=1.617.46 $\approx$ 1.618 Golden Mean

GMP

1.618<sup>2</sup>-1.618-1=-76

1-0.76=0.24 $\Rightarrow$ 1.602/6.67

Covalent radius for Og:

r=157=π/2

r=d=s=E × t=|E||t|sin θ

E=1/sin θ=1/F

$\alpha=\omega^2 R=(d\theta/dt)R$

$\omega^2=157^2$

$=(157)^2(293)(3/8)$   
 $=271\approx e^1=E$

Eigenvector

$\sqrt{\sqrt{3}}=1.316=1/0.759835=24.01$

$F=2M\omega^2$   
 $=2(292.99)(\pi/2)^2=1444$

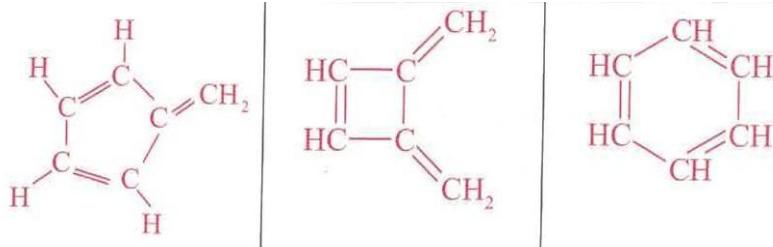
$E=1/F=1/1444=692=Ln1998=M$  when t=2

The image shows a periodic table of elements. In the top left, there is a box for Hydrogen (H) with the symbol, name, atomic number (1), and atomic mass (1.008). In the top right, there is a box for Aluminum (Al) with the symbol, name, atomic number (13), and atomic mass (26.982). The rest of the periodic table is shown below these two elements.

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>H</b><br>Hydrogen<br>1.008        | <b>Al</b><br>Aluminum<br>26.982      |
| <b>Li</b><br>Lithium<br>6.941        | <b>Be</b><br>Boron<br>9.013          |
| <b>Na</b><br>Sodium<br>22.990        | <b>Mg</b><br>Magnesium<br>24.305     |
| <b>K</b><br>Potassium<br>39.098      | <b>Ca</b><br>Calcium<br>40.078       |
| <b>Rb</b><br>Rubidium<br>85.468      | <b>Sr</b><br>Strontium<br>87.62      |
| <b>Cs</b><br>Cesium<br>132.905       | <b>Ba</b><br>Barium<br>137.323       |
| <b>Fr</b><br>Francium<br>223.020     | <b>Ra</b><br>Radium<br>226.026       |
| <b>Sc</b><br>Scandium<br>44.959      | <b>Ti</b><br>Titanium<br>47.88       |
| <b>Zr</b><br>Zirconium<br>88.906     | <b>V</b><br>Vanadium<br>50.942       |
| <b>Nb</b><br>Niobium<br>91.224       | <b>Cr</b><br>Chromium<br>51.916      |
| <b>Mo</b><br>Molybdenum<br>92.008    | <b>Mn</b><br>Manganese<br>54.938     |
| <b>Tc</b><br>Technetium<br>95.95     | <b>Fe</b><br>Iron<br>55.845          |
| <b>Ru</b><br>Ruthenium<br>101.07     | <b>Co</b><br>Cobalt<br>58.932        |
| <b>Rh</b><br>Rhodium<br>102.908      | <b>Ni</b><br>Nickel<br>58.693        |
| <b>Pd</b><br>Palladium<br>104.42     | <b>Cu</b><br>Copper<br>63.546        |
| <b>Ag</b><br>Silver<br>107.868       | <b>Zn</b><br>Zinc<br>65.38           |
| <b>Cd</b><br>Cadmium<br>112.414      | <b>Ga</b><br>Gallium<br>69.723       |
| <b>In</b><br>Indium<br>114.814       | <b>Ge</b><br>Germanium<br>72.031     |
| <b>Sn</b><br>Tin<br>115.171          | <b>As</b><br>Arsenic<br>74.122       |
| <b>Sb</b><br>Antimony<br>121.765     | <b>Se</b><br>Selenium<br>78.771      |
| <b>Te</b><br>Tellurium<br>127.6      | <b>Br</b><br>Bromine<br>79.924       |
| <b>I</b><br>Iodine<br>125.924        | <b>Kr</b><br>Krypton<br>83.780       |
| <b>Xe</b><br>Xenon<br>131.294        | <b>Rn</b><br>Radon<br>222.018        |
| <b>La</b><br>Lanthanum<br>57.926     | <b>Ce</b><br>Cerium<br>140.114       |
| <b>Ac</b><br>Actinium<br>227.028     | <b>Pr</b><br>Praseodymium<br>140.908 |
| <b>Th</b><br>Thorium<br>232.034      | <b>Nd</b><br>Neodymium<br>144.243    |
| <b>Pa</b><br>Protactinium<br>231.039 | <b>Pm</b><br>Promethium<br>144.913   |
| <b>U</b><br>Uranium<br>238.028       | <b>Sm</b><br>Samarium<br>150.36      |
| <b>Np</b><br>Neptunium<br>237.548    | <b>Eu</b><br>Europium<br>151.064     |
| <b>Pu</b><br>Plutonium<br>244.064    | <b>Gd</b><br>Gadolinium<br>157.25    |
| <b>Pu</b><br>Plutonium<br>243.061    | <b>Tb</b><br>Terbium<br>158.923      |
| <b>Am</b><br>Americium<br>247.061    | <b>Dy</b><br>Dysprosium<br>162.500   |
| <b>Cm</b><br>Curium<br>247.061       | <b>Bk</b><br>Berkelium<br>168.937    |
| <b>Bk</b><br>Berkelium<br>247.076    | <b>Cf</b><br>Californium<br>169.080  |
| <b>Es</b><br>Einsteinium<br>257.055  | <b>Fm</b><br>Fermium<br>169.055      |
| <b>Fm</b><br>Fermium<br>257.055      | <b>Md</b><br>Mendelevium<br>169.258  |
| <b>Mc</b><br>Moscovium<br>258.1      | <b>No</b><br>Nobelium<br>169.258     |
| <b>Lv</b><br>Livermorium<br>259.1    | <b>Lu</b><br>Lutetium<br>174.967     |

Figure 1: Periodic Table of the elements showing Og in lower right corner

We now use Benzene, a prolific molecule in organic chemistry to show why the atoms come together to conserve energy.



Proposed by August Kekulé in 1865

Figure 2: Benzene proposed structures. Source Barron's E Z Chemistry

$$3 \text{ C-C } 3(710) = 2130$$

$$3 \text{ C-C } 3(607) = 1821$$

$$6 \text{ C-H } 3(337.2) = 2023.2$$

$$\text{SUM} = 59742$$

$$\text{PE} + \text{Mc}^2 =$$

$$\text{M} = 6(12) + 6(1) = 78$$

$$\text{PE} = 78(2.9979)^2 = 4222.3$$

$$\text{TE} = \text{PE} + \text{BDE} = 59742 + 4222.3 = 10196$$

But the molecules all have the same number of each bond type.

Caron needs 4 e-

$$28 \times 1.602 = 4485.6$$

$$M = L n \ t = 4485.6$$

$$T = 1.50 = 1/G$$

$$15 \text{ e-} \text{ shared} \times 1.602 = 24.03 = 1.602 \times 6.67$$

So what is the difference for the Benzene ring? It is that 3 electrons are shared between 6 Carbons. So, energy is minimized:

$$3e-/6 \times (1.602) + 6(1.602) + He - 6(1.602) = 20.025$$

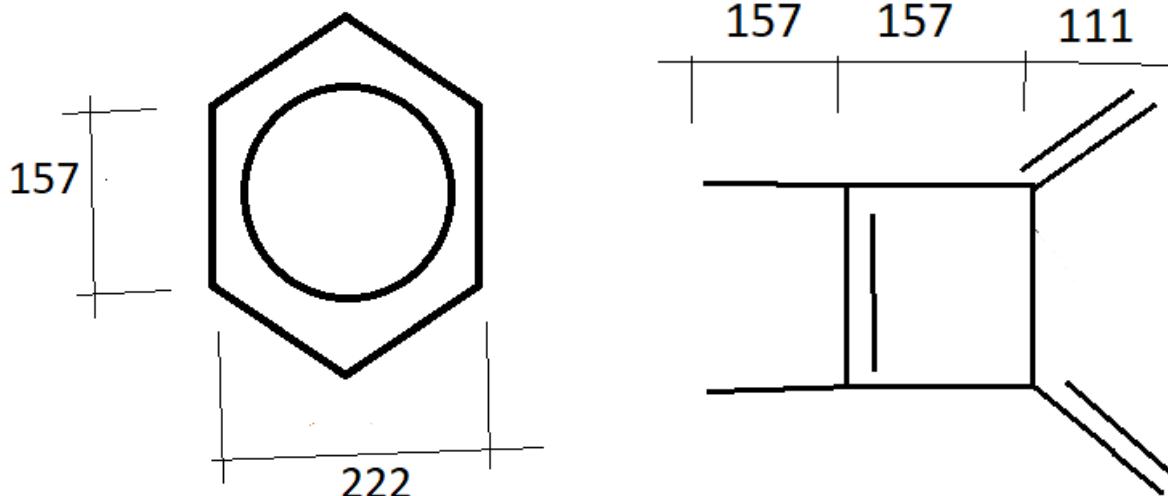
$$e^{20.025} = 2.99698 = c = 2.997 \sim 3$$

$t = c = 3$  = eigen value  $\square E = 5 \square y = y'$  for the eigen function.

For the middle architecture:

$$3 \text{ e-} + 6 \text{ e-} + 6 \text{ e-} = 20.025 \text{ same}$$

They are both symmetric molecules. Space must be conserved which is based on the cross product of energy and time(KE).



*Figure 3:* Two architectures for C<sub>6</sub>H<sub>6</sub>. The circle represents 3 electrons shared

$$s = \text{Ext} = E \ t \ \sin \theta$$

$$s = t$$

$$E = 1 / \sin \theta = 20.025$$

$$\Theta = 28.6 \text{ deg} = 0.5 \text{ rads}$$

$$\text{GMP: } 0.5^2 - 0.5 - 1 = -1.25 = \text{Emin of the GMP}$$

Area of the Benzene Ring:

$$S = (157)^2 + (\pi/4)^2 (\pi/4)^2 / 1/2$$

$$= 375 = 1/F = E \text{ where } F = SF = 8/3$$

Area of the middle structure:

$$157 + 157 + 111 = 425$$

$$111 + 157 + 111 = 379$$

Area -804

804

375 by 46.6% So the Benzene structure minimizes space. So that is why the Benzene ring is selected from first principles using AT Math.

## II. CONCLUSION

The Mass of the universe are established from first principles of Astro theology. The joining up of atoms of elements follows the laws of the conservation of energy and space using coulombic forces.

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