

A Mass and Entropy Theory for an Accelerating Expanding Universe

Interested in earth expansion after retiring. Trying to find some missing pieces that fit.

Unknown knowns

Donald Rumsfeld once remarked, "Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know that we know. There are known unknowns; that is to say, there are things that we now know we don't know. But there are also unknown unknowns – there are things we do not know we don't know."

Missing is unknown knowns...things we don't know that consensus says we do know.

Consensus says...

Consensus says matter is unchanging.... atoms cannot change size. Consensus says the ocean floor is subducting...less dense matter is piercing more dense matter to recycle in the mantle of a constant radius earth.

In the universe, all matter that matters consists of elemental atoms. We can "see" most elements, but not their atoms. All elements are different from one another as are their atoms.

The word "atom" means uncutable, does not mean unchanging

lonization

We think we know much about ionization but we don't know when it begins or all it does. We don't know what we don't know.

In 1970, Charlotte Moore compiled and published NBS-34 *Ionization Potentials and Ionization Limits Derived from the Analysis of Optical Spectra*.

Table 1 of NBS-34 indicates normal matter is detectable and identifiable in the spectrum and lists the IPs for each element.

This is a copy of NBS-34 (hold up copy)

The first 30 elements are from Charlotte's Table 1 (next slide).

_		-			NB	S-34 T	able 1,	pages 2	2 and 3	-lonizat	tion Po	tentials	and Li	nits (in	eV)	(First 3	0 Elem	ents or	ıly)				_
z	Element											Spectrun											z
		1			IV	v	VI	VII	VIII	IX	х	XI	XII	XIII	XIV	xv	XVI	XVII	XVIII	XIX	XX	XXI	+
1	н	13.598	54.416																				1
2	He	24.587		122.451																			2
3	LI	5.392	75.638 18.211		217.713																		3
4	Be	9.322 8.298			217.713	240 247																	4
5	B		25.154 24.383	47.887	64,492	340.217	489.981																6
0	N	11.26 14.534	24.383		64.492 77.472		489.981	667 020															5
,	0	13.618	35.116	47.448	77.412		138.116		071 207														8
8	F	13.618	35.116	62,707	87.138		157.161			1103.09													9
10	Ne	21.564	40.962	63.45	97.11			207.27	239.09		1362.16												10
11	Na	5.139	47.286	71.64	98.91			208.47	264.18		1465.09	1648.66											11
12	Mg	7.646	15.035	80.143		141.26	186.5	224.94		327.95	367.53		1962.61										12
13	Al	5.986	18.828	28.447	119.99		190.47	241.43	284.59	330.21	398.57	442.07		2304.08									13
14	Si	8.151	16.345	33.492	45.141	166.77	205.05	246.52	303.17	351.1	401.43	476.06			2673.11								14
15	P	10.486	19.725	30.18	51.37			263.22	309.41	371.73	424.5	479.57			2816.94	3069.76							15
16	S	13.36	23.33	34.83	47.3	72.68	89.049	280.93		379.1	447.09	504.78		651.63	707.14	3223.84	3494.1						16
17	CI	12.967	23.81	39.61	53.46	67.8	97.03		348.28		455.62	529.26			749.74	809.39	3658.43	3946.19					17
18	Ar	15.759	27.629	40.74	59.81	75.02			143.456		478.68	538.95		686.09	755.73	854.75	918	4120.78	4426.11				18
19	к	4.341	31.625	45.72	60.91	82.66	100	117.56	154.86	175.814	503.44	564.13	292.09	714.02	787.13	861.77	968	1034	4610.96	4933.93			19
20	Ca	6.113	11.871	50.908	67.1	84.41	108.78	127.7	147.24	188.54	211.27	591.25	656.39	726.03	816.61	895.12	947	1087	1157	5129.05	5469.74		20
21	Se	6.54	12.8	24.76	73.47	91.66	111.1	138	158.7	180.02	225.32	249.832		755.47	829.79	926							21
22	Ti	6.82	13.58	27.491	43.266	99.22	119.36	140.8	168.5	193.2	215.91	265.23	291.497	787.33	861.33	940.36							22
23	V	6.74	14.65	29.31	46.707	65.23	128.12	150.17	173.7	205.8	230.5	255.04	308.25	336.267	895.58	974.02							23
24	Cr	6.766	16.5	30.96	49.1	69.3	90.56	161.1	184.7	209.3	244.4	270.8	298	355	384.3	1010.64							24
25	Mn	7.435	15.64	33.667	51.2	72.4	95	119.27	196.46	221.8	243.3	286	314.4	343.6	404	435.3	1136.2						25
26	Fe	7.87	16.18	30.651	54.8	75	99	125	151.06	235.04	262.1	290.4	330.8	361	392.2	457	489.5	1266.1					26
27	Co	7.86	17.06	33.5	51.3	79.5	102	129	157	186.13	276	305	336	379	411	444	512	546.8	1403				27
28	Ni	7.635	18.168	34.17	54.9	75.5	108	133	162	193	224.5	321.2	352	384	430	464	499	571	607.2	1547			28
29	Cu	7.726	20.292	36.83	55.2	49.9	103	139	166	199	232	266	368.8	401	435	484	520	557	633	671	1698		29
30	Zn	9.394	17.964	39.722	59.4	82.6	108	134	174	203	238	274	310.8	491.7	454	490	542	579	619	698	738	1856	30

Ionization Potentials- are energy levels in electron volts when an element has the potential to join other elements. (Chemical).

Much can be gleaned from this table of ionization potentials.

First...the energy is contained within the element.

Reading the chart from left to right =present to past. From right to left = past to present. Notice the small incremental jumps between the IPs that suddenly becomes a large jump (highlighted). This anomaly signifies something different is occurring.

The first time an element ionizes, it becomes normal matter and its intrinsic energy begins to decay. Exceeding the highest IP level listed (blank spaces) indicates such element is undetectable and existed as **dark matter** from the time of its inception. Presently, all the elements have ionized; hence, there is no remaining dark matter when considering all matter in the universe consists of elemental atoms.

Additionally, these Ionization Potentials provide the data for finding an energy **rate of decay** by utilizing the atomic mass, the quantity percentages of the mixture, and an exponential doubling equation $y^x = 2$. This method was discussed at the CNPS 2016 conference in College Park, MD and can be found on the first two pages of the Ionic Growing Earth (8-element supplement) paper on my website- <u>https://ionic-expanding-earth.weebly.com/</u>

Decay Rates of Earth, Moon, and Sun

8 elements make up 98.8% of earth's matter O,Fe,Si,Mg,S,Al,Ni.&Ca [1 eV / 1.5952 my]

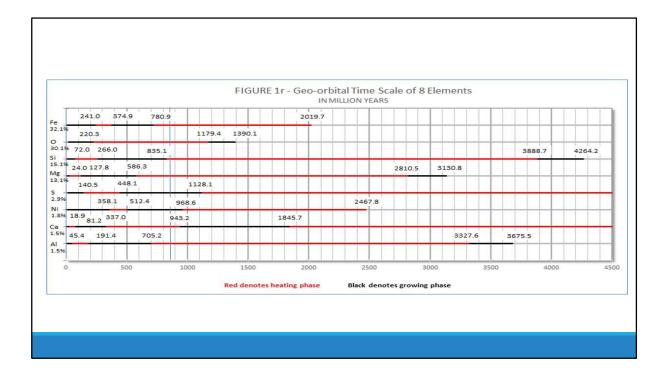
6 elements make up 99.0% of the moon's matter O,Fe,Si,Mg,Al &Ca [1 eV/ 2.0348 my]

5 elements make up 99.57% of the sun's matter H,He,C,O&Si [1 eV / 8.29 my]

(notes follow after decay rates)

If you multiply all the IPs on Charlotte Moore's chart by Earth's decay rate, it will give you the time of occurrence of those IPs. Calcium was the first element to ionize ~8.8 bya and hydrogen was the last ~22 mya.

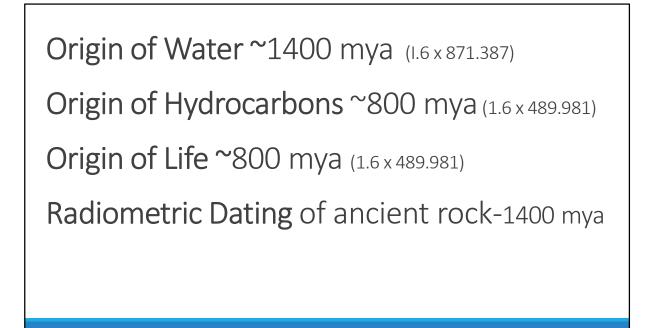
When you plot the IP time of the 8 Earth elements, using red for the anomalies, you get Earth Figure 1r <u>on the next slide</u>



Here, the anomaly identifies the **Origin of Heat**. The heating that was necessary to melt the 32.1% iron that gravitated to the core of a smaller Earth (~800 km. radius)

The same eight elements that started the Earth, heated the Earth for the first **3 to 3.5 billion years** of its existence. This changes everything we think we know that is older than 700 or 800 million years.

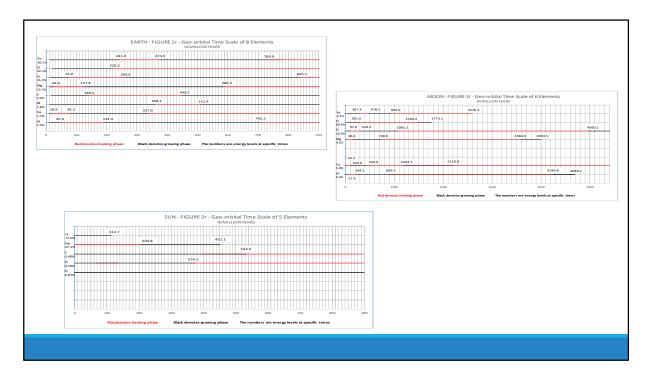
More than half the energy is heating rather than growing.



(talk about SLIDE FIRST) then notes

Knowing when oxygen and carbon first ionized indicates when water, hydrocarbons, and life began on Earth. Water arrived ~1400 mya to cool a molten crust gradually, in layers from the top down.

Without knowing when the basic elements can ionize and join other elements, life on a rocky planet swimming in water 3 bya remains unchallenged and believable. Radiometric dating is not reliable for dating ancient rocks because it does not consider when the rocks were in a molten state. It should, because no one could know the composition or location of molten rocks a billion or two billion years earlier.



These charts indicate that most of the growth on the earth, moon and sun occurred within the last billion years.

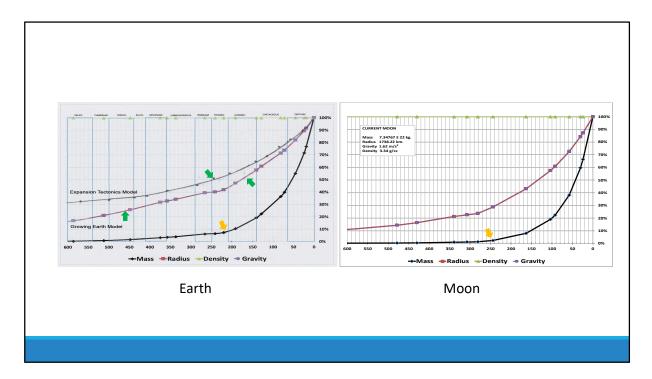
			ABLE 4R - VAI	NABLE MASS	GROWTH RAT	ES FROM IONIZA	TIONS of the 8 EL											
MY	Duration t (CMY)	% total earth	Element	Rate/≃eV	~	Mass/v ¹ (kg)	% of Current	x (in 2/in y) MY	% growing	% heating								
0	0.189	98.8%	0	0	4.05379	5.98000E+24	100.00%	49.5228	98.8%									
18.9	0.051	-1.5%	-Ca	-0.04018	4.01361	4.59003E+24	76.76%	49.8778	97.3%	1.5%								
24.0	0.214	-13.9%	-Mg	-0.61396	3.39965	4.27597E+24	71.50%	56.6448	83.4%									
45.4	0.266	-1.4%	-Al -Si	+0.05570 +0.57718		3.29085E+24 2.38701E+24	55.03% 39.92%	57.4200 68.1106	82.0%	16.8%								
81.2	0.466	-15.1%	+Ca	0.04018	2.80695	2.38701E+24	39.92%	67.1591	68.4%									
127.8	0.127	13.9%	+Mg	0.61396	3.42091	1.34374E+24	22.47%	56.3578	82.3%	16.5%								
40.5	0.509	-2.9%	-S	-0.09710	3.32380	1.14942E+24		57.7089	79.4%	19.4%								
191.4	0.289	1.4%	+AI	0.05570	3.37950	6.23689E+23		56.9213	80.8%									
220.3	0.207	-30.1% -32.1%	-O x 75%	-1.51476	1.86474	4.38662E+23 3.85577E+23	7.34%	111.2377 313.2457	50.7% 18.6%	48.1% 80.2%								
41.0 66.0	0.250	-32.1%	+Fe +Si	0.57718		3.64827E+23	6.10%	115.2362	18.6%									
37.0	0.211	-1.5%	-Ca	-0.04018	1.78468	2.38020E+23	3.98%	119.6656	32.2%	66.6%								
358.1	0.168	-1.8%	-Ni	-0.03292	1.75176	2.10637E+23	3.52%	123.6396	30.4%									
374.9	0.732	32.1%	+Fe	0.61707		1.91704E+23	3.21%	80.3747	62.5%				MOON -	TABLE 4R - VA	RIABLE MASS	GROWTH RAT	ES FROM IONIZ	Α,
48.1	0.643	2.9%	+5 +Ni	0.09710	2.46593	1.01970E+23 5.70729E+22	1.71%	76.7971 75.6851	65.4%	33.4% 31.6%		Duration	% total	1				
512.4	1.189	-13.9%	+Ni -Mg	-0.61396	2.49885	2.90068E+22	0.95%	109.3516	53.3%	45.5%	MY	t (CMY)	moon	Element	Rate/≃eV	y	Mass/y ^r (kg	
705.2	0.757	-1.4%	-Al	+0.05570	1.82919	1.36516E+22	0.23%	114.7834	51.9%	46.9%	0	0.242	99.0%	0 -Ca	-0.15535		7.34767E+2 4.86982E+2	
780.9	0.542	-32.1%	-Fe	-0.61707	1.21212	8.64279E+21	0.14%	360.3164	19.8%	79.0%	30.6	0.064	-5.8%	-Ca -Mg	-0.15535		4.86982E+2. 4.37593E+2.	
											57.9	0.340	-9.4%	-AI	-0.37401	4.75742	2.80011E+2	2
											91.9	0.117	-16.4%	-Si	-0.62688		1.64766E+22	
											103.6	0.595	5.8%	+Ca +Mg	0.15535 0.18551	4.28589 4.47140	1.39571E+22 5.87126E+22	
											244.2	0.368	9.4%	+AI	0.37401	4.84541	1.74269E+2	
											281.0	0.264	-60.9%	-O x 75%	-3.06475	1.78067	9.75034E+20	
											307.4	0.319	-2.3%	-Fe	-0.04421	1.73646	8.37271E+20	
											339.3 429.9	0.906	-5.8%	+Si -Ca	0.62688	2.36334 2.20799	7.02123E+20 3.22106E+20	
											429.9	2.696	2.3%	+Fe	0.04421	2.25220	2.19536E+20	
											747.9	1.516	-4.2%	-Mg	-0.18551	2.06669	2.45968E+19	9
											899.5	0.965	-9.4%	-Al	-0.37401	1.69268	8.18319E+18	
											996.0	0.692	-2.3%	-Fe	-0.04421	1.64847	4.92435E+18	3
					-	4R - VARIARI F F	ARTH MASS GR	OWTH RATES FR		TIONS of the 5	ELEMENTS							
					JUN - TABL													
				Duration				_	ata a		x	%	%					
			MY	t (CMY)	% total sun	Element R	ate/≈eV				x (in 2/in y) MY							
			0	t (CMY) 0	% total sun 99.57%	Element R	0 82	.99735 1.989	900E+30	100.00000%	x (in 2/in y) MY 15.6863	growing	heating					
			0.0	t (CMY) 0 1.127	% total sun 99.57% -27.10%	Element R 0 -He -	0 82 7.26854 75	.99735 1.989 .72882 1.989	000E+30	100.00000% 100.00000%	x (in 2/in y) MY 15.6863 16.0185	growing 72.47%	heating 27.10%					
			0 0.0 112.7	t (CMY) 0 1.127 0.911	% total sun 99.57% -27.10% -71.00%	Element R 0 -He -H7	0 82 7.26854 75 75.62419 0.	.99735 1.989 .72882 1.989 10462 1.510	000E+30 000E+30 503E+28	100.00000% 100.00000% 0.76221%	x (In 2/In y) MY 15.6863 16.0185 696.6063	growing 72.47% 1.47%	heating 27.10% 27.10%					
			0 0.0 112.7 203.8	t (CMY) 0 1.127 0.911 1.704	% total sun 99.57% -27.10% -71.00% 27.10%	Element R 0 -He - -H -7 He 7	0 82 7.26854 75 75.62419 0. 7.26854 7.	.99735 1.989 .72882 1.989 10462 1.516 37316 1.384	000E+30 000E+30 003E+28 165E+28	100.00000% 100.00000% 0.76221% 0.69615%	x (In 2/In y) MY 15.6863 16.0185 696.6063 34.6947	growing 72.47% 1.47% 28.57%	heating 27.10% 27.10% 0.00%					
			0 0.0 112.7 203.8 374.2	t (CMY) 0 1.127 0.911 1.704 0.769	% total sun 99.57% -27.10% -71.00% 27.10% -0.10%	Element R 0 -He - -H -7 He 7 -Si -	0 82 7.26854 75 75.62419 0. 7.26854 7. 0.00378 7.	.99735 1.985 .72882 1.985 10462 1.510 37316 1.384 36937 4.60	000E+30 000E+30 003E+28 165E+28 106E+26	100.00000% 100.00000% 0.76221% 0.69615% 0.02313%	x (In 2/In y) MY 15.6863 16.0185 696.6063 34.6947 34.7036	growing 72.47% 1.47% 28.57% 28.47%	heating 27.10% 27.10% 0.00% 0.00%					
			0 0.0 112.7 203.8 374.2 451.1	t (CMY) 0 1.127 0.911 1.704 0.769 0.835	% total sun 99.57% -27.10% -71.00% 27.10% -0.10% -27.10%	Element R 0 -He - -He - -He - -Si - -He -	0 82 7.26854 75 75.62419 0. 7.26854 7. 0.00378 7. 7.26854 0.	.99735 1.989 .72882 1.989 10462 1.516 37316 1.384 36937 4.602 10084 9.903	000E+30 000E+30 003E+28 165E+28 106E+26 385E+25	100.00000% 100.00000% 0.76221% 0.69615% 0.02313% 0.00498%	x (In 2/In y) MY 15.6863 16.0185 696.6063 34.6947 34.7036 721.4889	growing 72.47% 1.47% 28.57% 28.47% 1.37%	heating 27.10% 27.10% 0.00% 0.00% 0.10%					
			0 0.0 112.7 203.8 374.2	t (CMY) 0 1.127 0.911 1.704 0.769	% total sun 99.57% -27.10% -71.00% 27.10% -0.10%	Element R 0 -He - -He - -He - -Si - -He - -C -	0 82 7.26854 75 75.62419 0. 7.26854 7. 0.00378 7. 7.26854 0. 0.03575 0.	.99735 1.989 .72882 1.989 10462 1.516 37316 1.384 36937 4.601 10084 9.901 06509 9.140	000E+30 000E+30 003E+28 165E+28 106E+26	100.00000% 100.00000% 0.76221% 0.69615% 0.02313%	x (In 2/In y) MY 15.6863 16.0185 696.6063 34.6947 34.7036	growing 72.47% 1.47% 28.57% 28.47%	heating 27.10% 27.10% 0.00% 0.00%					

These are the calculation tables of the Earth, Moon, and Sun that basically deducts the heating phases to obtain the resulting growing mass.

The x column, ln 2/ ln y, is the mass doubling time for the years listed in column 1. The doubling rate changes every time an element changes from growing to heating or vice-versa. The Earth's current doubling rate is every 49.5 million years while the moon's rate is 40.7 million years. The sun is doubling its large mass every 16 million years or three times faster than the Earth while the smaller moon is growing faster than the Earth.

		EAI	RTH TAB	LE 5R -M.	ASS FRO		4R WITH	(49.5229 MY)	AR LAGG	ING RADI	ius															
				Rate of	(47-8428 MT)		Rate of		Current		Current	Gravity C	ament													
MY	×	Element	Rate/eV	Growth	Mass (kg)	Current Mass	Growth	Radius (km)	Radius	Density (g/cc)			barrent bravity													
0	0.189	0 -Ca	0	4.05379	5.98E+24 4.59003E+24	100.00% 76.76%	4.05378	6378.96 5840.56	100.00% 91.56%	5.5000	100.00%		11.56%													
14.0	0.214	Mg	-0.61396	3.39965	4.275975+24	71.50%	3.23964	\$704.20	89.42%	5.5000	100.00%		19.42%													
45.4	0.266	-Al	-0.05570	3.34395	3.29085E+24	\$5.03%	3.34394	\$227.40	81.95%	5.5000	100.00%		11.95%													
72.0	0.092	-51	-0.57718	2.76627	2.38701E+24	39.92%	2.76675	4696.79	73.63%	5.5000	100.00%		3.63%													
81.2	0.466	+Ca	0.04018	2.80695	2.178675+24	36.35%	2.80693	4552.47	71.37%	5.5000	100.00%		1.37%													
140.5	0.509	-5	-0.09710	3.32380	1.149428+24	19.22%	3.32379	3681.38	\$7.71%	5.5000	100.00%		7.71%													
191.4	0.289	+Al	0.05570	3.37950	6.236896+23	10.43%	3.37949	3002.66	47.07%	5.5000	100.00%	4.61 4	7.07%													
20.3	0.207	-0 x 75%	-1.51476	1.86474	4.386625+23		1.86478	2670.30	41.86%	5.5000	100.00%		12.86%													
41.0	0.250	-Fe +Si	-0.61707 0.57718	1.24767	3.855775+23	6.45%	1.24766	2557.98 2511.19	40.10%	5.4999	100.00% 100.00%		0.10%													
137.0	0.211	-C2	-0.04018	1.78468	2.38025+23	3.98%	1.78466	2177.99	34.14%	5.4999	100.00%		4.14%			MOG	N - TABL	E 5R -MA	SS FROM	TABLE	4R WITI	H~100 YE	AR LAG	GING RAI	DIUS	
158.1	0.168	-Ni	-0.03292	1.75176	2.10637E+23	3.52%	1.75174	2091.05	32.78%	5.4999	100.00%	3.21 3	2.78%			r	_		40.7812 MY)			(40.7813 MY)				
374.9	0.732	+Fe	0.61707	2.36883	1.917046+23	3.21%	2.36881	2026.42	31.77%	5.4999	100.00%		13.77%	MY	,	flement	Rate/eV	Rate of Growth	Mass (ke)	urrent Mass	Rate of Growth	Radius (km)	Current	Density (g/cc)	Current	Gravity (m/cec^2)
448.1 512.4	0.643	+5 +Ni	0.09710	2.46593	1.01975+23	1.71%	2.46592	1641.89	25.74%	5.4999	100.00%		5.74%	0	× 0.242	fiement			Mass (kg) 0	100.00%	5.47227	1738.22	100.00%	3.3400	100.00%	1.62
586.3	1.189	Mg	-0.61396	1.88489	2.900685+22	0.49%	1.88488	1079.88	16.93%	5.4958	100.00%		6.93%	24.2	0.064	-Ca				66.28%	5.31692	1515.51	87.19%	3.3600	100.00%	1.41
05.2	0.757	-Al	-0.05570	1.82919	1.36516E+22		1.82918	839.94	18.17%	5.4958	100.00%		3.17%	30.6	0.273	-Mg	-0.18551	5.13143	1.375935+22	\$9.56%	5.13141	1462.44	84.13%	3.3600	100.00%	1.36
780.9	0.542	-50	-0.61707	1.21212	8.642796+21	0.14%	1.21211	721.23	11.31%	5.4997	100.00%	1.11 1	1.31%	\$7.9	0.240	-AI		4.75742	2.80011E+22	38.11%	4.75740	1260.22	72.50%	3.3600	100.00%	1.18
														91.9	0.117	-Si +Ca		4.18054	1.647665+22	22.42% 19.00%	4.18052	1056.03	60.75% 57.48%	3.3400	100.00%	0.99
														103.6	0.811	+Ca +Mg			5.871265+21	7.99%	4.47138	748.69	48.07%	3.3400	100.00%	0.98
														244.2	0.368	+Al		4.84541	1.742695+21	2.37%	4.84539	499.42	28.73%	3.3400	100.00%	0.47
														281.0	0.264	-0 x 75%	-3.06475	1.78067	9.750345+20	1.33%	1.78064	411.53	23.68%	3.3400	100.00%	0.38
														307.4	0.319	-Fe			8.372715+20	1.14%	1.78643	391.15	22.50%	3.3399	100.00%	0.37
														339.3 429.9	0.906	+Si -Ca		2.36334	7.021235+20	0.96%	2.36331	268.86	21.22%	3.3399	100.00%	0.34
														429.9	2.696	-Ca +Fe			2.195365+20	0.30%	2.25217	250.36	16.40%	3.3399	100.00%	0.27
														747.9	1.516	-Mg	-0.18551	2.06669	2.459685+19	0.03%	2.06666	120.70	6.94%	3.3398	99.99%	0.11
														899.5	0.965	-Al	-0.37401	1.69268	8.183195+18	0.01%	1.69265	83.63	4.81%	3.3397	99.99%	0.08
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					-					Rate of			Rate of		Current		Current	Gravity	Current							
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					_ L	MY	^											274.08	100.00%							
					E	0	0	0	0	82.99735			82.99501	695732.06		1.4100	100.00%									
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						0 0 112.7 203.8 374.2	0 1.127 0.911 1.704 0.769	-He -H He -Si	-7.26853605 -75.62419 7.26854 -0.00378	75.72882 0.10462 7.37316 7.36937	1.989E+30 1.51603E+2 1.38465E+2 4.60106E+2	100.000% 8 0.762% 8 0.696% 6 0.023% 5 0.005% 5 0.005%	75.72648 0.10228 7.37082 7.36704	695732.06 136921.38 132931.56 42744.39	100.00% 19.68% 19.11% 6.14%	1.4100 1.4100 1.4072 1.4065	100.00% 100.00% 99.80% 99.75%	274.08 53.94 52.26 16.80	100.00% 19.68% 19.07% 6.13%							

The left half of Table 5R for each is essentially Table 4R. The right half results when the increasing radius (volume) follows the increasing mass by 100 years. The volume increase always lags the mass increase.



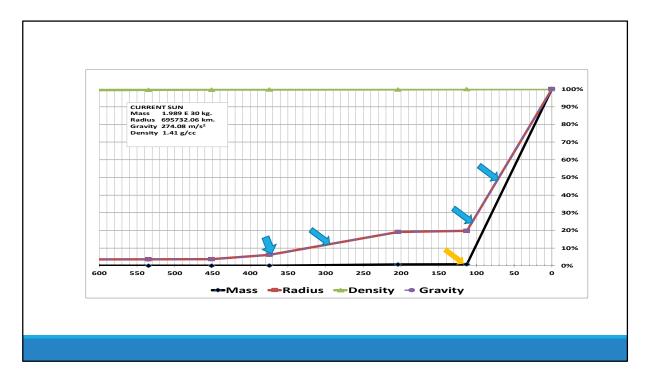
Graphs of table 5 for earth and moon.

Some interesting points are surmised when comparing the sizes of Earth from James Maxlow's book <u>Beyond Plate Tectonics</u> with the Ionic Growing Earth data.

When the radii from both are plotted as in this chart, it is noted that the differences in size until ~250 mya can generally be attributed to the growing continents since the Expansion Tectonics Model only closes the oceans A halving of the radius or gravity is indicated at 50%.(175 mya versus 240 mya)

The differences between 250 mya and 600 mya are likely due to the size of the primordial radius, 1700 km versus 800 km, and the time when exponential expansion effectively began. A second halving of the radius is indicated on the IGE curve at 25% around 470 mya. A second halving is not possible with a 1700 km primordial radius.

The 2011 **Nobel Prize** in Physics was awarded to Saul Perlmutter, Brian Schmidt and Adam Riess "for the discovery of the **accelerating expansion** of the **Universe** through observations of distant supernovae". The yellow arrows indicate when accelerating expansion began on the earth (~200 mya) and the moon (250 mya)



This graph indicates accelerating expansion started on the sun ~110 MYA when the 71% hydrogen began to grow.

During that 110 MY period, the sun's radius doubled twice, once at 25% ~105 MYA and again at 50% ~70 MYA. The sun's radius also doubled at 12.5% ~300 MYA and at 6.25% ~370 MY when the 27.1% helium was growing between 203 and 451 MYA. The three minority elements are responsible for all growth between 112 and 203 MYA and prior to 451 MYA.

Doubling the mass three times (2^3) will double the radius once, resulting from an eight fold mass increase. Doubling the mass six times (2^6) will double the radius twice, resulting from a sixty-four fold mass increase. Doubling the mass nine times (2^9) will double the radius a third time, resulting from a 512 fold mass increase. Doubling the mass twelve times (2^{12}) will double the radius a fourth time, resulting from a 4096 fold increase. The above graph indicates the sun's radius doubled four times in less than 400 MY.

The overall mass curves are exponential in nature, but the doubling rates between the points do not change and therefore are linear as shown. The oddity of the sun graph when compared to the moon and Earth graphs is due to the break between the helium growing time and the hydrogen growing time when very little expansion occurs (112.7 to 203.8 MYA). This break punctuates and changes the continuity of a curve that employs the identical exponential doubling technique used for the moon and Earth.

Similar punctuated expansions would occur on stars and other celestial bodies predominately composed of hydrogen and helium.

The Mechanism

The mechanism for growing matter is the same mechanism that effects energy converting to mass in the equation E = mc2, except on a micro scale.

Observing the photon is an example of pure energy at a higher level transforming to additional mass at a lower energy level.

A change in thinking about matter is long overdue. Everything in the observable universe changes with time.

What causes the Sun, Earth, and Moon to grow at accelerating rates? Accelerating expansion is comprehensible, yet unexplainable with unchanging matter and with dark matter ceasing to exist after an element's initial ionization.

The problem of Growing Matter stems from a thirteenth century premise that... *the essence of matter is unchanging*. Today, that assumption in the scientific world has become a certainty, meaning...*atoms cannot change in size or numbers*. That <u>certainty</u> leads to confused thinking when considering the exchangeability of energy and matter. If one truly believes that atoms of matter cannot change size, then what is energy converting to in Einstein's famous equation?

Aging causes inherent elemental energy to decay and decay involves a conversion process.

Finding the rate of decay (which is dependent upon the elemental composition amounts present on a celestial body) allows knowing the time *when* the elemental atoms of such celestial body ionize and *when* they are growing/expanding and *when* they are not. Growing old is the reason elemental atoms, at certain times, are growing larger and ionization is an integral part of such mechanism.

Density

Increasing the amount of a substance does not increase its density, rather it increases its mass.

Growing matter utilizes this *intensive property* (as opposed to *extensive*). Hence, density remains nearly constant only allowing for compression within a celestial body until the pressure is relieved and the volume expands. The volume increases always follow the mass increases.

Growing matter increases mass, not density.

Gravity is not concerned about volume; it is concerned about mass (weight)

Operating additional mass using leap second data from Wikipedia: Description of the end of 2016, there were 18 leap seconds in a 36 year period averaging 1 leap second / 2 yrs. Thus, 1 leap second / 2 yrs = 0.5 / 31,557,600 seconds per year = 1.584404391 E-8. Derefore, the amount of mass required to slow the rotation of Earth's present mass by one half leap second while conserving angular momentum is. 5.98 E+24 x 1.584404391 E-8 = 9.474738258 E+16 kg/yr. This translates to the energy of ~3 million electron volts per second or ~1.9 E+25 joules per second converting to ~3.3 million tons of mass per second.

The leap second represents a slowing of Earth's rotational velocity (spin).

The current mathematical model was derived from LOD (length of day) work by Stephenson and Morrison and is based upon a solar day equaling 86,400 seconds. This model wrongly attributes the slow down to tidal friction and possibly a redistribution of Earth's internal mass, all of which presume a constant mass with some questionable transference of energy and momentum to change orbital motion.

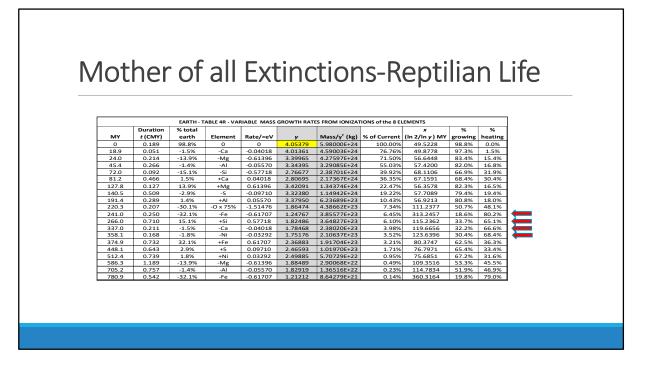
Jack Hohner, on page 15 of his paper: <u>http://dynamicmatter.com/wp-</u> <u>content/uploads/2016/10/DEFICIENCIES-IN-TIDAL-FRICTION-rev1.pdf</u>, calculates 5.68523302 E 16 kg/yr mass increases while conserving angular momentum by using a completely different method. This compares favorably to the ~9.5 E 16 kg/yr calculations using the leap second and to the IGE 7.35 E 16 kg/yr calculation.

Cosmic Background Radiation

The KELVIN units of CBR says it is measuring temperature... 2.73 degrees above absolute zero which would be the average temperature of the vacant spaces in the universe (not a remnant of a Big Bang) The reason it so low is because mass is growing at very much faster rate than all the heat generated from the stars and elsewhere, thereby diluting temperature increases.

The entropy of the universe is increasing while its temperature is diluted by the increasing space.

CBR appears to be the sought-after ether.



The red arrows pointing to the last column (% heating) indicates an extensive heating period between 358 MYA and 241 MYA that materially intensified for the 25 MY period between 266 MYA and 241 MYA. In the light of today's global heating debate where a few degrees rise in temperature in a few decades (or centuries) is considered highly detrimental to life by many, envision 25 million years of increasing heat with very small incremental increases in temperatures and its affect upon all life on the planet.

Coincidentally, the intensified heating culminated near the Permian-Triassic boundary (250 MYA); the geological time of the world's greatest extinction. Consequently, geologists should consider excessive heating as a cause for that event.

The Geological Record indicates the first dinosaurs appeared \sim 250 mya indicating reptilian life thrived in a warm climate on a warm crust.

Mitochondria

Some recent studies indicate cellular mitochondria produces temperatures of 6° to 10° Centigrade above skin temperature. The conventional answer...converting chemical energy from food to ATP...does not address the origin of the heat.

Presently, two vital elements for human life, sodium and potassium, are in the heating phase.

Is it possible that heat is being extracted from those two elements? I don't have a physical chemistry answer, but it is something to think about when the decay energy of one electron volt is equivalent to producing a 11,604.5 Kelvin temperature (over a 1.6 MY period).

THE DINOSAUR PARADOX - DEBUNKED

Reduced gravity on a smaller planet permits larger life sizes but does not explain gigantic dinosaurs sizes.

The largest recorded land creature today is a 12 ton elephant killed in 1956. Accordingly, the largest life size permitted with a 50% reduction in gravity (~175 mya) would be a dinosaur weighing 24 tons. How is that possible when the biggest dinosaur is reported to weigh 70 tons and lived 100 mya?

Gigantic sizes appear to be possible because we are finding and measuring dinosaur fossils and not considering the minerals that replaced the organic dinosaur bone substances.

The fossil minerals are from the same matter that produced an eight-fold mass increase in 175 my.

Growing Matter allows and limits larger past life sizes, thereby negating the dinosaur paradox.

Fossils are rocks and rocks are growing.

Everything in the observed universe is changing.

Subscribing to a theory of "everything changes" does not negate or denigrate theories based on "unchanging matter" or theories based on "unchanging time" or quantum mechanics, which is consistent with the Standard Model and special relativity. Changes and adjustments are inevitable when the assumptions are revealed.

The merits of each can co-exist like mathematical trains running on different gauge tracks.

SUMMARY

SUMMARIZING:... We covered:

- 1. Ionic Growing Sun, IG Earth and IG Moon
- 2. Unknown knowns and consensus
- 3. When dark matter exists
- 4. Origin of Heat Water- Hydrocarbons Life = (when an element first ionizes).
- 5. Earth's mass was heating for first 3 3.5 billion years
- 6. Radiometric dating of rocks over 1400 mya is false
- 7. Demonstrated the Sun mass increased 4100 fold in less than 400 my
- 8. When accelerating expansion began on Earth, Moon and Sun
- 9. Stars experience Punctuated Expansion like our sun that began less than 500 mya
- 10. The expansion "mechanism"—energy converting to mass
- 11. Density is unchanging except for compression
- 12. The leap second Quantifies added mass.
- 13. CBR = is the average temperature of vacant space in the universe
- 14. Global warming likely caused the Mother of all Extinctions
- 15. Debunked the Dinosaur Paradox

16. Indicated a probable mitochondria heat source.

Didn't cover:

- 1. The opening of the Pacific
- 2. Oceans likely did not open simultaneously as NOAA rainbow map dating implies.
- 3. Atomic Masses of Nuclides indicating growing matter
- 4. Quantum measurements of the Standard Kilogram ("le grand K"), indicates iridium is growing.

