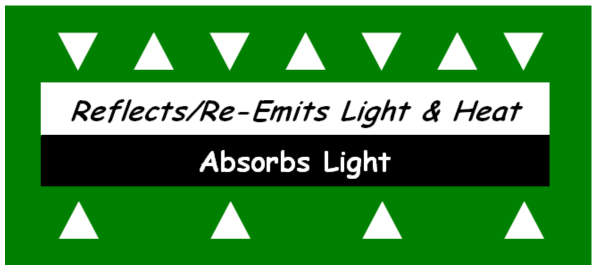
A Tale of Two Materials ! ! !

At first glance it appears impossible to utilize the vast energy of the Zero-Point Energy Field. Why? A more descriptive name for the Casimir Force is light-pressure. The photons of the Quantum Flux exert many tons of light-pressure on us all the time; however, since this pressure is equal in all directions, all of these forces ***seem*** to add up to zero ***net*** force; fortunately, things are not always as they *seem! ! !*

In principle, the quantum-pressure of the photons of the Zero-Point Energy Field (ZPE) can impart up to twice as much ***momentum*** to one side of a solitary *macroscopic* object as to its opposite side---despite the fact that the quantum pressure is the *same* on *both* sides! This is possible because the material on one side of the isolated object can be engineered so that it primarily *reflects* the photons of the Quantum Flux while the material on its other side primarily *absorbs* them. In other words, one side experiences *elastic* collisions with these photons while its opposite side experiences *inelastic* collisions with these photons. This results in a net Casimir Light-Pressure Force that acts on a single *isolated* **macroscopic** object!



This arrangement is *far* easier to construct than other Casimir Force Devices since we are not dealing with nano-scale ***structures.*** **We merely have to identify or create two materials,** one which does an especially good job of absorbing EUV wavelengths and a second material that does an especially good job of reflecting these wavelengths. Preferably in the 50 nm wavelength or smaller. Smaller is *much* better!!!

This can be accomplished at a *macroscopic* scale and can result in dramatic forces net forces that vary from grams to tons, depending on the effective relative bandwidth of the two materials. Depending on the relative effectiveness of these two materials, we could soon own free home generators and fuel-less automobiles. (Even the machines *themselves* will be free from the standpoint that we will be purchasing with just part of the money we had been spending on electricity or fossil fuels.)

nm	PSI	nm	PSI	nm	PSI	nm	PSI
1	191,676	14	4.989	27	0.5777	40	0.1023
2	11,980	15	3.786	28	0.4907	41	0.09192
3	2366.37	16	2.925	29	0.4194	42	0.08285
4	748.73	17	4.989	30	0.3607	43	0.07487
5	306.68	18	3.786	31	0.3118	44	0.06783
6	147.9	19	2.925	32	0.2710	45	0.06160
7	79.83	20	2.295	33	0.2366	46	0.05607
8	46.80	21	1.826	34	0.2075	47	0.03928
9	29.21	22	1.471	35	0.1828	48	0.03611
10	19.17	23	1.198	36	0.1616	49	0.03325
11	13.09	24	0.9856	37	0.1434	50	0.03067
12	9.24	25	0.8182	38	0.1277	51	0.02833
13	6.71	26	0.6849	39	0.1141	52	0.02622

The table on the left, shows these pressures in ***pounds per square inch.*** For example, at 6 nm we see a value of 148 psi. This is the total quantum pressure that is attributable to all wavelengths that are greater than or equal to 6 nm

To determine the light pressure that is attributable to just those wavelengths that include 9 nm and ten nm and every wavelength inbetween: We simply subtract the pressure value for 10 nm and above, from the (larger) pressure value for 9 nm and above:

29 - 19 = 10 psi

The Following Chart Gives the Total Amount of Pressure Within *Each* One-Nanometer Bandwidth---all by itself!

LPD Chart 10-12-08

Bandwidth				Pa	PSI	
1	to	2	nm	609,375,000	837,891	Shuttle Launch: 38 M N
2	to	3	nm	32,600,309	44,825	
3	to	4	nm	5,485,629	7,543	
4	to	5	nm	1,499,063	2,061	
5	to	6	nm	538,457	740	One Car engine/inch^2
6	to	7	nm	230,823	317	One flying man/inch^2
7	to	8	nm	112,029	154	
8	to	9	nm	59,621	82	
9	to	10	nm	34,070	46.8	
10	to	11	nm	20,604	28.3	
11	to	12	nm	13,049	17.9	Home generator/inch^2
12	to	13	nm	8,588	11.8	
13	to	14	nm	5,838	8.0	
14	to	15	nm	4,081	5.6	
15	to	16	nm	2,921	4.02	
16	to	17	nm	2,136	2.94	
17	to	18	nm	1,591	2.19	
18	to	19	nm	1,204	1.66	
19	to	20	nm	925	1.27	
20	to	21	nm	720	0.99	
21	to	22	nm	567	0.78	
22	to	23	nm	452	0.62	
23	to	24	nm	364	0.50	
24	to	25	nm	295	0.406	
25	to	26	nm	242	0.332	
26	to	27	nm	199	0.274	
27	to	28	nm	166	0.228	
28	to	29	nm	138	0.190	Home generator/ foot^2
29	to	30	nm	117	0.160	
30	to	31	nm	99	0.136	
31	to	32	nm	84	0.115	
32	to	33	nm	72	0.099	
33	to	34	nm	62	0.085	

Bandwidth				Pa	PSF	
34	to	35	nm	53	11	
35	to	36	nm	46	9	
36	to	37	nm	40	8	
37	to	38	nm	35	7	
38	to	39	nm	31	6	
39	to	40	nm	27	5	
40	to	41	nm	24	5	
41	to	42	nm	21	4	
42	to	43	nm	19	4	
43	to	44	nm	17	3	
44	to	45	nm	15	3	
45	to	46	nm	13	3	One Home
46	to	47	nm	12	2	Generator/m^2
47	to	48	nm	11	2	
48	to	49	nm	10	2	
49	to	50	nm	9	2	
50	to	51	nm	8	2	
51	to	52	nm	7	1	
52	to	53	nm	7	1	
53	to	54	nm	6	1	
54	to	55	nm	5	1	
55	to	56	nm	5	1	
56	to	57	nm	5	1	
57	to	58	nm	4	1	
58	to	59	nm	4	1	
59	to	60	nm	3	1	
60	to	61	nm	3	1	
61	to	62	nm	3	1	
62	to	63	nm	3	1	
63	to	64	nm	3	0.5	
64	to	65	nm	2	0.5	
65	to	66	nm	2	0.4	
66	to	67	nm	2	0.4	Ion Rocket/in^2

Wm. Scott Smith
840 W Cora Ave, B201
Spokane, WA 99205 USA
+509 315-9602 US Pacific Coast Time
scott712@hotmail.com