Ref. No.: Ex/PHARM/T/325/2018

Name of the Examination: B. PHARMACY THIRD YEAR SECOND SEMESTER - 2018

Subject: PHARMACEUTICAL ENGINEERING-I Time: Three hours

Full Marks: 100

Answer any five questions taking at least two questions from each group.)

## Group A

- Q1.(i)Write on the principle ,construction, operation, advantages and disadvantages of Krystal crystallizer or Draft tube baffle crystallizer.
- (ii) A Swenson Walker crystallizer is to be used to produce 1 ton /hr of FeSO<sub>4</sub>,7H<sub>2</sub>O(M.W. 278) crystals by the cooling of a saturated solution (33.23%)which enters the crystallizer at  $T_F$ =125°F and the slurry leaves at  $T_L$ =75°F. After product formation, concentration of mother liquor at  $T_L$  is 22.51%. Cooling water enters counter currently the crystallizer jacket at 60°F and leaves at 70°F. Average specific heat of feed solution is 0.7 BTU/lb/°F and heat of crystallization is 28.49 BTU/lb. The overall heat transfer coefficient is 35 BTU/(hr)(sq ft)(°F). There are 3 sq ft of cooling surface per foot of crystallizer length.
  - (a) Estimate the cooling water requirement in litre/hr. (b) Determine number of crystallizer sections.

## Marks 10+10

- Q2.(i) Write on propeller and paddle type impellers. Mention different types of dimensionless groups involved in mixing of liquid system. Explain vortex formation in a liquid and how can it be prevented?
- (ii) A tank 1.2 m in diameter and 2 m high which is filled to a depth of 1.2 m with a liquid having a viscosity of 20 poise and a density of  $900 \text{ kg/m}^3$ . An impellor of diameter 360 mm is installed in the tank 360 mm from the bottom. The agitator rotates at 800 rpm.

Calculate power requirement in horse power for agitating liquid in both **baffled** and **unbaffled** tanks with (i)**propeller** (a=1.7,b=18) and (ii) **turbine** (a=1, b=40) type impellors? Choose a rpm when baffled tank is not necessary. Plot each of following coordinates on log-log paper and solve the problem.

Propeller type							Turbi	ne type			
N <sub>Re</sub> Unbaffled,Np	250 0.95	400 0.9	10 <sup>3</sup> 0.8	2*10 <sup>3</sup> 0.7	10⁴ 0.6	N <sub>Re</sub> Unbaffled,Np	200 3.7	300 3.8	10 <sup>3</sup> 2.7	3*10 <sup>3</sup> 1.75	10 <sup>4</sup>
Baffled, Np	0.95	0.9	0.9	0.9	0.9	Baffled, Np	3.7	3.8	4.5	5.3	6

Marks 10+10

- Q3.(i) Derive the expression for steady state heat flow through a cylinder, and(ii) Derive the expression for overall heat transfer coefficient .(iii) Give a description of 2-4 shell and tube heat exchanger with neat diagram.
- (iv) A flat furnace wall is constructed of a 114mm layer of Sil-o-cel brick, with a thermal conductivity of 0.138 W/m.°C backed by a 229 mm layer of common brick, of thermal conductivity of 1.38 W/m.°C. The temperature of the inner face of the wall is 765°C and that of the outer face is 77°C. (a) What is the heat loss through the wall? (b) What is the temperature of the interface between the two bricks layers? (c) supposing the contact the two bricks layers is very poor and a contact resistance of 0.09° C.m²/W is present, What would be the heat loss?

Marks (4+4+4)+8

## B. PHARMACY THIRD YEAR SECOND SEMESTER - 2018

PHARMACEUTICAL ENGINEERING - I TIME: 3 h FULL MARKS: 100 ANSWER ANY FIVE QUESTIONS TAKING ATLEAST TWO FROM EACH GROUP

## **GROUP-B**

(Use graph paper if required)

[Use steam table as required]

1. A 6% aqueous solution of high molecular weight solute has to be concentrated to 40% in a forward feed double effect evaporator at the rate of 12000 kg/h. The feed temperature is 40°C. Saturated steam at 4.5 kg/cm² is available for heating. A vacuum of 600 mm Hg is maintained in the second effect. Calculate the area requirements, if the calandria of equal area are used. The overall heat transfer coefficients are 550 and 370 kcal/hm² °C in the first effect and the last effect respectively. The specific heat of the concentrated liquor is 0.87kcal/kg °C. [20]

2.

- a. An evaporator is used to concentrate 4536 kg/h of a 20% solution of NaOH in water entering at 65°C to a product of 50% solid. The pressure of the saturated steam used is 170.6 kPa and the pressure in the vapor space of the evaporator is 11.75 kPa. The overall heat-transfer coefficient is 2000 W/m²K. Calculate the steam used, the steam economy in kg vaporized/kg steam used, and the heating surface area in m².
- b. Write short notes on any three: a) Basket Type Vertical Evaporator, b) Falling Film Evaporators, C) Gasketed Plate Evaporator, d) Parallel Feed.

c.

- i. ...... tube vertical evaporator is commonly used for handling solutions that tend to foam
  - a. Short
  - b. Long
  - c. Either (i) or (ii)
  - d. None of these.
- ii. Euler number

e.

Inertial effects

pressure effects

g.

inertial effects
gravitatio nal effect

f.

pressure effects inertial effects

d.

viscous effects gravitational effects

iii. Reynolds number

a.

inertial effects
gravitatio nal effect

c.

None of these

b.

inertial effects viscous effects

d.

viscous effects
gravitational effects

[8+9+3=20]

3.

a. The screen analysis shown in the table-1 below, applies to a sample of crushed quartz. The density of the particle is  $3000 \text{ kg/m}^3$ , and the shape factor are a=1.5, and  $\Phi_s$ =0.6. for the material between 4-mesh and 200 mesh in particle size, calculate a) Aw, and Nw b)

 $\overline{D_{\nu}}$  c)  $\overline{D_{\kappa}}$  d)  $\overline{D_{w}}$  e)  $\overline{N_{i}}$  for the 150/200 mesh increment. f) What fraction of the total number of particles is in the 150/200-mesh increment?

- b. A quartz mixture having the screen analysis shown in the table-2 below is screened through a standard 10-mesh screen. The cumulative screen analysis of the overflow and underflow are also provided. Calculate the mass ratios of the overflow and underflow to feed and the overall effectiveness of the screen.
- c. The following relation between specific resistance and pressure drop has been determined:

$$\alpha = 8.8*10^{10}[1+3.36*10^{-4}(\Delta p \ in \ lb/ft^2)^{0.86}]$$

This relation is valid over a pressure range of 0-1000 lbf/sq.in. A slurry of this material yielding 3 lb of cake solid per cubic filtrate is to be filtered at a constant pressure drop of 70 lbf/sq.in and 70°F. The resistance of filter-medium R<sub>m</sub>=0.65\*10<sup>10</sup>per ft. Determine square feet of the filter surface area required to give 1400 gal of filtrate in a 1-h filtration?

[8+7+5=20]

4.

١.

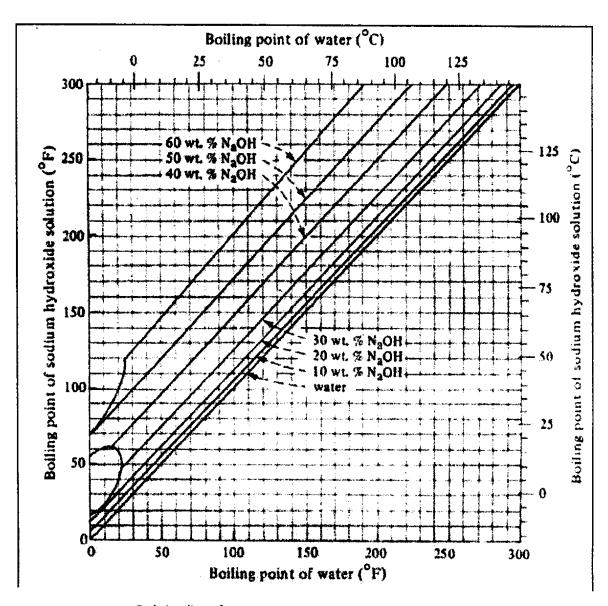
- a. The weak liquor to be fed to the evaporator is composed of a non-volatile ...... and a ...... solvent.
  - i. Solute, volatile
  - ii. Solute, solute
  - iii. Volatile, volatile
  - None of these iv.
  - b. In the ...... feed system, vapor and liquor flow in counter current fashion.
    - **Backward** ii.
    - iii. Forward
    - iv. Mixed
    - **Parallel** ٧.
- II. Compare forward feed arrangement with backward feed arrangement in case of a multiple effect evaporation system.
- III. A certain set of crushing rolls has rolls of 100 cm diameter by 38 cm width face. They are set so that crushing surfaces are 1.25 cm apart at the narrowest point. The manufacture recommends that they may run at 50 to 100 rpm. They are to crush a rock having a specific gravity of 2.35 and the angle of nip is 30°. What are the maximum permissible size of feed and maximum actual capacity in tonnes per hour, if the actual capacity is 12% of the theoretical.?
- IV. A certain set of crushing rolls has rolls of 1000 mm diameter by 375 mm width of face. They are set so that the crushing surfaces are 12 mm apart at the narrowest point. What is the maximum permissible size of feed? Given: Angle of nip = 30°.
- V. A material is crushed in a Blake jaw crusher such that the average size of particle is reduced from 50 mm to 10 mm with the consumption of energy of 13.0 kW/(kg/s). What would be the consumption of energy needed to crush the same material of average size 75 mm to an average size of 25 mm:
  - a) assuming Rittinger's law applies?
  - b) assuming Kick's law applies?

Which of these results would be regarded as being more reliable and why?

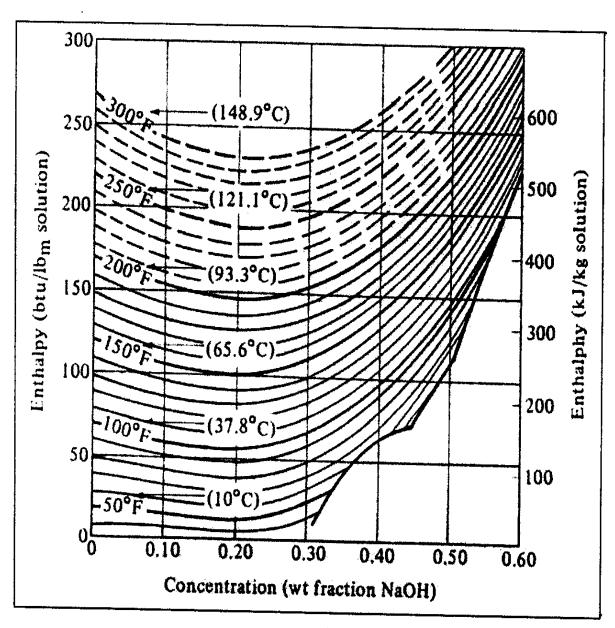
Mesh	Screen opening $D_{pl}$ , mm	Mass fraction retained, x <sub>i</sub> ,	Average particle diameter in increment, $D_{pi}$ , mm	Cumulative fraction smaller than $D_p$
4	4.699	0.0000		1.0000
6	3.327	0.0251	4.013	
8	2.362	0.1250	2.845	0.9749
10	1.651	0.3207	2.007	0.8499
14	1.168	0.2570	1.409	0.5292
20	0.833	0.1590	1.001	0.2722
28	0.589	0.0538	0.711	0.1132
35	0.417	0.0210	0.503	0.0594
48	0.295	0.0102	0.356	0.0384
65	0.208	0.0077	0.252	0.0282
100	0.147	0.0058	0.178	0.0205
150	0.104	0.0041		0.0147
200	0.074	0.0031	0.126 0.089	0.0106
Pan		0.0075	0.037	0.0075 0.0000

Table-2

		Cumuk	utive fraction sn	naller than $D_p$
Mesh	$D_p$ , mm	Feed	Overflow	Understow
4	4.699	0	0	
6	3.327	0.025	0.071	
8	2.362	0.15	0.43	0
10	1.651	0.47	0.85	0.195
14	1.168	0.73	0.97	0.58
20	0.833	0.885	0.99	0.83
28	0.589	0.94	1.00	0.63
35	0.417	0.96	1.00	0.94
65	0.208	0.98		
Pan '		1.00		0.975 1.00



Duhring lines for aqueous solutions of sodium hydroxide.



Enthalpy concentration chart for the system NaOH water.

3 Saguration Temperature Table for Steam in SI Units

																		-										
3	0.1000	7.77.7	9,0755	2.86.2	19113	\$130	8.7518	1.033	\$ 5960	1.5211	27103	1,3725	1,3948	8.2280	\$ 1572	1.0574	8.0124	7.9503	7.8631	7.8168	7.7512	7 6805	7.6236	75584	7 4970	74354	7.3745	23143
الله الله الله الله	2000	77.7	\$ 1055	\$ 0531	00000	19319	\$ 9034	2552	\$ 1066	\$ 7599	17141	\$ 6670	1,6247	1.5811	1 5352	8.4963	1 4550	8.4143	13744	8 3351	1367.1	1.554	8 22 10	11143	1 1481	\$ 1125	\$ 0775	3
,	-	27657	0 0000	380	0.0008	97.0	0.3504	0.1804	0.2016	0.2320	0.2678	0.2564	0.3249	0,3531	0.3811	0.4000	0.4366	0.4640	6.4013	0.5183	0.5452	0 5719	0 59\$5	0.6248	04510	0 4771	0 000	0 7287
		21.275	7,555.7	200.12	2357.07	2352.66	2347.25	2741.79	2334.77	2330.71	2325.13	2319.53	131391	2308.23	2302.65	2297.01	2301.36	2285.71	2250 06	2274.40	2268 74	2263 08	2257.41	2251.73	224604	224035	2234.65	1128 93
		25	377.4E	2380 72	23028	2386.91	2300.54	2302.70	2365.53	23,002.27	3401.01	3463.73	2408.43	2409.13	18.118	3414.40	3417.17	2419.24	3422.52	2425.19	3427.86	3430 52	3433.13	3435.#H	3438 50	2441 14	24.5.72	244642
8			2.2463	13.55	35,906	74 7585	42.5885	50.0746	59 23 65	23.20	75.8817	# 2828	92.5229	100 113	100 143	117.484	125.807	134.131	142,486	150 784	159 113	167.444	175 778	111 111	192 452	200 794	709 137	217 484
2	252		\$5.15	10100	245672	242.31	3077 ES	20.27	3468.66	317	2459.74	3454.65	は無数	2445 21	24+0-48	20574	2431.00	\$2.52%	321.56	2416.74	2411.97	3407.20	3402 41	2397 63	3302.83	2388.02	2313 19	3378.36
*		888	350.45	2508.60	2512 64	251658	25:20.42	91 KS2	2527 80	2531 58	253523	2534.83	2542.46	35.46.06	2540 66	2583.23	2556 81	\$5.00 33	3563.96	256753	3571.00	3574 65	2572.20	2581.75	65 335	23.22.22	2592 ₩	2505-86
2	25	280	英	17.5909	25.9279	X 2606	13 5897	0910.03	10000 65	5388.69		11.701.3	22.23	¥ 18 1	109.166	117.448	133.811	134.136	142.462	38.780	051.451	167.452	175 736	E 121	197:01	300 003	209 150	217 458
100		26.53	179.63	157.04	137.59	120.00	16.30	93.74	au	32	20.50	57.20	\$1.56	08'ST	39.17	xx	32.82	35.6%	36.60	2 2	21.62	10 54	17.60	16.03	95 22	13 33	12.04	10.94
2.0	3	382	179.63	157.04	137.50	130 23	10631	27.22	GG	23.33	2 3	37.65	51.47	45.90	41.02	22,22	32.53	15.65	36.85	23.96	23,15	35.52	17.69	252	14 56	13.23	12.05	1001
2	7	0.000395	0.000005	0 000094	9660000	0.000997	0.000997	#4000 o	6660000	0000000	0001000	0001000	0.001001	0.001002	0,001002	0.001003	1001000	0.001000	0.001005	0001000	0.001007	0001000	0.001000	0001000	0101000	1101000	0 001012	0,001013
ă Ac	£	06119	0.7056	-	09157	-		1	<b>†</b>	+-	1	1	1	†	1		1	t	1-	59398	1	1		1	<u> </u>	-	1	
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Ī	LP.	m3/kg	37/F.m	10 m	E E	T TA	E A	EJ/E	E.		Y Z	E K	EJJE K
	14.999	0.001014	10.02	10.02	225.848	2599.36	2373.51	225.833	2449.04	2223.21	0.7543	8.0091	7.2547
	16.507	0.001015	9.159	9.158	234.202	2602.\$5	2368.65	234.185	2451.66	2217.48	0.7798	7.9757	7.1959
	18.143	0.001016	8.381	8.380	242.558	260634	2363.78	242 540	2454.27	2211.73	0.8051	7.9428	7.1377
	19.916	0.001017	7.679	7.678	250.918	2609 80	2358.89	250.898	2456.87	2205.97	0.8302	7,9104	7.0802
	21.834	0.001018	7.044	7.043	259.281	2613.26	2353.98	259.259	2459.46	2200.20	0.8552	7.8786	7.0234
	23.906	0.00100.0	6.470	6.469	267.647	2616.70	2349.05	267.623	2462.04	2194.41	0.8801	7.8472	6.9671
	26.144	0.001020	5.949	5.948	276.016	2620.13	2344.11	275.990	2464.61	2188.62	0.9048	7.8163	6.9115
	28.557	0.001021	5.476	5.475	284.389	2623.54	2339.15	284.360	2467.16	2182.80	0.9294	7.7859	6.8564
	31.156	0.001023	5.047	5.046	292.765	262694	2334.18	292.733	2469.71	2176.97	0.9539	7.7559	6.8020
ヿ	33.952	0.001024	4.656	4.655	301.144	2630.32	2329.18	301.106	3472.24	2171.13	28/6.0	7.7263	1844.9
	36.957	0.001025	€.300	4.299	309.527	2633.69	2324.16	309.489	3474.76	2165.27	1.0024	7.69.7	6.6948
	40.184	0.001026	3.976	3.975	317.913	2637.04	2319.13	317.872	LT 1172	2159.40	1.0265	7.6686	6.6421
	43.645	0.001028	3.680	3.679	326.303	2640.37	2314.07	326.258	2479.76	2153.51	1.0505	7.6403	6.5899
	47.353	0.001029	3.409	3.408	334.696	2643.69	2308.99	334.648	2482.25	2147.60	1.0743	7.6125	6.5382
	51.322	0.001030	3.162	3.161	343.093	2646.99	2303.90	343.040	2484.72	2141.68	1.0980	7.5850	6.4870
寸	55.567	0.001032	2.935	2.934	351.494	2650.27	2298.78	351.437	2487.17	2135.74	1.1216	7.5579	6.4364
	60.102	0.001033	2.727	2.726	359.899	2653.53	2293.64	359.837	2489.62	2129.78	1.1450	7.5313	6.3862
$\neg$	64.942	0.001034	2.537	2.536	368.308	2656.78	2288.47	368.240	2492.04	2123.80	1.1684	7.5050	6.3366
$\dashv$	20.18t	0.001036	2361	2360	376.720	2660.01	2283.29	376.648	2494.46	2117.81	1.1916	7.4790	6.2874
_	75.603	0.001037	2.200	2.199	385.137	2663.21	2278.08	385.059	2496.86	2111.80	1.2147	7.4534	6.2387
	81.457	0.001039	2.052	2.051	393.558	2666.40	2272.84	393.474	2499.25	2105.77	1.2377	7.4282	6.1905
_	\$7.683	0.001040	1.915	1.914	401.924	3669.57	2267.58	401.893	2501.62	2099.73	1.2606	7.4033	6.1427
一	\$4.299	0.001042	1.789	1.788	410.414	2672.72	2262.30	410,316	2503.98	2093.66	1.2833	7.3787	6.0954
寸	101.325	0.001043	1.673	1.672	418.849	2675.84	2256.99	418.743	2506.32	2087.57	1.3060	7.3545	6.0485
7	108.778	0.001045	1.566	1.565	427.289	2678.95	2251.66	427.175	2508.64	2081.47	1.3285	7.3306	6.0020
寸	116.678	0.001046	1.466	1.465	435.733	2682.03	2246.30	435.611	2510.95	2075.34	1.3510	07.08.7	5.9560
寸	125.047	0.001043	1.374	1373	444.183	2685.09	16.0422	444.052	2513.25	2069.19	1.3733	7.2837	5,9103
7	133 905	0.001050	1.289	1.288	452.638	2688.13	2235.49	452.498	25.515.52	2063.03	1.3955	7.2606	5.8651
┪	143.273	0.001051	1.210	1.209	461.099	2691.14	2230.04	460.948	2517.78	2056.83	1.4177	7.2379	5.8203

	1									•	#
34kg	23/Eg	23/5.5	1.1/kg	LIVEE	LINE	LIAN	kJ/kg	kIng	LJ/kg K	LIAR K	LINK K
001014	10.02	10.02	225.848	2599.36	2373.51	225.833	2449.04	12233	0.7543	16003	7.2547
001015	9.159	9.158	234.202	2602.85	2368.65	234.185	2451.66	2217.48	0.7798	7.9757	7.1959
0.00100.0	8.381	8.380	242.558	260634	2363.78	242.540	2454.27	2211.73	0.8051	7.9428	7.1377
0.001017	7.679	7.678	250.918	2609.80	2358.89	250.898	2456.87	2205.97	0.8302	7.9104	7.0802
0.001018	7.044	7.043	259.281	2613.26	2353.98	259 259	2459.46	2200.20	0.8552	7.8786	7.0234
0.001019	6.470	6.469	267.647	2616.70	2349.05	267.623	2462.04	2194.41	0.8801	7.8472	11969
0.00100.0	5.949	5.948	276.016	2620.13	2344.11	275.990	2464.61	2188.62	0.9048	7.8163	6,9115
0.001021	5.476	5.475	284 389	2623.54	2339.15	284 360	2467.16	2182.80	0.9294	7.7859	6.2564
0.001023	5.047	5.046	292.765	2626.94	2334.18	292.733	1469.71	2176.97	0.9539	7.7559	6.8020
0.001024	4.656	4.655	301.144	263032	2329.18	301.109	3472.24	2171.13	0.9782	7.7263	6.7481
0.001025	4.300	4.299	309.527	2633.69	2324.16	309.489	2474.76	2165.27	1.0024	7.6972	6.6948
0.001026	3.976	3.975	317.913	2637.04	2319.13	317.872	2477.27	2159.40	1.0265	7.6686	6.6421
0.001028	3.680	3.679	326.303	2640.37	2314.07	326258	2479.76	2153.51	1.0505	7.6403	6.5899
0.001029	3.409	3.408	334.696	2643.69	2308.99	334.648	2482.25	2147.60	1.0743	7.6125	6.5382
0.001030	3.162	3.161	343.093	2646.99	2303.90	343.040	2484.72	2141.68	1.0980	7.5850	6.4870
0.001032	2.935	2.934	351.494	2650.27	2298.78	351.437	2487.17	2135.74	1.1216	7.5579	6.4364
0.001033	2.727	2.726	359.899	2653.53	2293.64	359.837	2489.62	2129.78	1.1450	7.5313	6.3862
0.001034	2.537	2.536	368.308	2656.78	2288.47	368.240	2492.04	2123.80	1.1684	7.5050	6.3366
0.001036	2.361	2360	376.720	2660.01	2283.29	376.648	2494.46	2117.81	1.1916	7.4790	6.2874
0.001037	2.200	2.199	385.137	2663.21	2278.08	385.059	2496.86	2111.80	1.2147	7.4534	6.2387
0.001039	2.052	2.051	393.558	2666.40	2277.84	393.474	2499 25	2105.77	1.2377	7.4282	6.1905
0.001040	1.915	1.914	+86 10+	2669.57	2267.58	+01.893	2501.62	2099.73	1.2606	7.4033	6.1427
0.001042	1.789	1.788	+10.414	3672.72	2262.30	410.316	2503.98	2093.66	1.2833	7.3787	6.0954
0.001043	1.673	1.672	418.849	2675.84	2256.99	418.743	2506.32	2087.57	1.3060	7.3545	6.0485
0.001045	1.566	1.565	427.289	2678.95	2251.66	427.175	2508.64	2081.47	1.3285	7.3306	6.0020
0.001046	1.466	1.465	435.733	2682.03	2246.30	435.611	2510.95	2075.34	1.3510	7.3070	5.9560
0.001048	1.374	1373	444.183	2685 09	2240.91	444.052	2513.25	2069.19	1.3733	7.2837	5.9103
0.001050	1.289	1.288	452.638	2688.13	2235.49	452.498	2515.52	2063.03	1 3955	7.2606	5.8651
0.001051	1.210	1.209	461.099	2691.14	2230.04	460.948	2517.78	2056.83	1.4177	7.2379	5.8203
	0.001014 0.001015 0.001018 0.001011 0.001011 0.001023 0.001023 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001034 0.001033		4 10.02 5 9.159 6 8.381 7 7.679 8 7.044 9 6.470 0 5.949 1 3.409 1 3.409 2 3.976 3 3.976 3 3.976 3 3.976 3 3.976 3 3.976 3 3.976 1 2.237 1 2.537 1 2.537 1 2.537 1 2.66 1 1.66 1 1.289 1 1.289	4         10.02         10.02           5         9.159         9.158           6         8.381         8.380           7         7.679         7.678           8         7.044         7.043           9         6.470         6.469           9         6.470         6.469           9         6.470         6.469           9         6.470         6.469           9         6.470         6.469           9         6.470         6.469           9         6.476         5.948           2         5.949         5.948           3         5.047         5.946           3         5.047         5.946           3         3.976         3.975           3         3.409         3.408           3         3.409         3.408           3         3.60         3.408           3         3.60         3.408           3         2.051         3.408           3         3.60         3.408           3         3.60         3.408           4         4.656         2.360           2	4         10.02         10.02         225.848           5         9.159         9.158         234.202           6         8.381         8.380         242.558           7         7.679         7.678         250.918           7         7.044         7.043         250.281           8         7.044         7.043         250.281           9         6.470         6.469         267.647           9         6.470         6.469         267.647           9         6.470         6.469         267.647           1         5.949         25.476         284.389           2         5.946         2.92.765         284.389           3         5.047         5.946         292.765           4         4.656         3.408         3.46.309         2.27.7           3         3.600         4.299         309.527         2.236.303         2.236.303           3         3.680         3.408         3.46.89         2.22.765           3         3.680         3.408         3.40.89         2.22.76           2         2.935         2.934         351.40.4         2.22.0           2	4         10.02         10.02         225.848         259936           5         9.159         9.158         234.202         2602.85           6         8.381         8.380         242.558         260634           7         7.679         7.678         250.281         2609.80           8         7.044         7.043         250.281         2608.80           9         6.470         6.469         267.647         2613.26           9         6.470         6.469         267.647         2613.26           9         6.470         6.469         267.647         2613.26           9         6.470         6.469         267.647         2613.26           1         5.476         5.446         292.765         2636.94           2         5.646         3.975         317.913         2630.37           3         3.680         3.679         326.303         2640.37           4         4.656         4.555         317.913         2640.37           3         3.409         3.408         334.696         2640.37           3         3.409         3.408         334.696         2640.37           4	4         10.02         10.02         225.848         2599.36         2373.51           5         9.159         9.158         224.202         260.285         236.378           6         8.381         8.380         242.558         260.634         236.378           7         7.679         7.678         250.918         260.836         233.38           9         6.470         6.480         267.647         2616.70         234.811           9         6.470         6.480         267.647         2616.70         234.811           1         5.476         5.475         284.389         2620.13         234.11           1         5.476         5.475         284.389         2620.13         234.11           2         2.940         297.65         261.69         233.418           3         3.600         4.299         309.527         233.418           3         3.600         4.299         30.537.6         233.418           3         3.600         4.299         3.640.37         233.418           3         3.600         3.600         2.640.37         233.418           3         3.600         3.640.37         234.16	4         1002         275.848         2599.34         2373.51         225.833           5         9150         2150         224.282         2660.34         236.86         234.28         252.818         252.818         252.818         252.818         252.83         256.834         256.834         256.834         256.834         256.83         256.834         256.834         256.834         256.83         256.834         256.8	4         1002         1002         255848         259936         2373.51         275.83         244004           5         9.159         9.158         234.202         2602.34         2363.78         242.50         245.80	4         10.02         10.02         275.848         259.36         273.51         258.33         246.04         273.21           5         9.159         9.158         224.202         2602.35         236.36         234.185         2451.66         2217.48           6         8.381         8.330         242.58         2606.34         236.378         242.540         245.27         2217.48           7         7.670         7.679         260.92         2153.89         250.289         245.27         2217.48           8         7.044         7.679         250.21         260.30         2153.89         259.25         1459.46         220.00           9         6.470         6.480         267.647         260.31         224.11         275.90         246.61         2153.62         246.61         217.31         246.61         217.31         216.61         217.41         260.20         246.61         217.31         216.61         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41         217.41 <td>4         10.02         10.02         275.848         2589.36         273.51         258.33         244.04         223.31         0.743           5         9.159         9.158         274.202         2602.85         2268.65         274.185         2451.66         223.31         0.758           6         8.381         8.380         272.58         2606.34         235.36         225.90         246.27         2211.73         0.8051           8         7.044         7.043         250.218         260.80         235.36         245.90         246.61         210.708         0.8552           9         6.470         6.476         250.18         260.03         245.36         246.41         220.00.0         0.8552           1         5.476         5.044         250.18         260.03         244.11         77.89         246.61         11.00         0.8532           1         5.476         5.047         250.18         260.03         244.11         77.89         246.61         11.00         0.8530           2         5.476         5.047         250.47         250.47         250.47         27.17         0.8530         0.8530         0.8530         0.8530         0.8530</td>	4         10.02         10.02         275.848         2589.36         273.51         258.33         244.04         223.31         0.743           5         9.159         9.158         274.202         2602.85         2268.65         274.185         2451.66         223.31         0.758           6         8.381         8.380         272.58         2606.34         235.36         225.90         246.27         2211.73         0.8051           8         7.044         7.043         250.218         260.80         235.36         245.90         246.61         210.708         0.8552           9         6.470         6.476         250.18         260.03         245.36         246.41         220.00.0         0.8552           1         5.476         5.044         250.18         260.03         244.11         77.89         246.61         11.00         0.8532           1         5.476         5.047         250.18         260.03         244.11         77.89         246.61         11.00         0.8530           2         5.476         5.047         250.47         250.47         250.47         27.17         0.8530         0.8530         0.8530         0.8530         0.8530

168	166	164	162	160	158	156	154	152	150	148	146	144	142	140	138	136	134	132	130	128	126	124	122	120	118	116	114	112	c
754.328	718.210	683,477	650.092	618.016	587.212	557.644	529.277	502.073	476,000	451.022	427.106	404.219	382.328	361.402	341.408	322.317	304.097	286,720	270.156	254.377	239.354	225.062	211.472	198.559	186 297	174.662	163.628	153.173	kPa
0.001112	0.001110	0.001107	0.001105	0.001102	0.001100	0.001098	0.001095	0.001093	0.001091	0.001089	0.001086	0.001084	0.001082	0.001080	0.001078	0.001076	0.001074	0.001072	0.001070	0.001068	0.001066	0.001064	0.001062	0.001060	0.001058	0.001057	0.001055	0.001053	1137kg
0.254102	0.266195	0.278985	0.292519	0.306849	0.322029	0.338120	0.355186	0.373295	0.392524	0.412954	0.434672	0.457774	0.482365	0.508556	0.536469	0.566238	0.598007	0.631933	0.668188	0.706958	0.748448	0.792881	0.840500	0.891572	0.946389	1.005	1.069	1.137	12 V/12
0.252990	0.265085	0.277878	0.291414	0.305747	0.320930	0.337023	0.354090	0.372202	0.391433	0.411865	0.433585	0.456690	0.481283	0.507476	0.535391	0.565162	0.596933	0.630861	0.667118	0.705890	0.747382	0.791817	0.839438	0.890512	0.945331	1.004	1.068	1.136	HANNE THE
710.010	701.271	692.546	683.836	675.138	666.454	657.783	649.124	640.477	631.841	623.217	614.604	606.002	597.410	588.828	580.256	571.693	563.140	554.595	546.058	537.530	529,009	520.496	511.991	503.493	495.001	486.516	478.038	469.565	13/12
2765.24	2763.22	2761.15	2759.04	2756.38	2754.68	2752.44	2750.16	2747.84	2745.47	2743.07	2740.64	2738.16	2735.65	2733.10	2730.52	2727.90	2725.25	וצמונו	2719.86	2717.11	2714.34	2711.53	2708.70	2705.84	2702.95	2700.04	2697.10	2694.13	23/1/2
2055.23	2061.95	2068.60	2075.20	2081.74	2088.23	2094.66	2101.04	2107.36	2113.63	2119.86	2126.03	2132.16	2138.24	2144.27	2150.26	2156.21	2162.11	2167.98	2173.80	2179.58	2185.33	2191.04	2196.71	2202.35	2207.95	2213.52	2219.06	2224.57	
709.171	700.474	691.790	683.117	674.457	665,808	657.170	648.544	639.928	631.322	622.726	614.140	605.564	596.996	588,438	579.888	571.347	562.813	554.287	545.769	537.258	528.754	520.257	511.766	503.282	494.804	486.332	477.865	169.404	
2573.56	2572.03	2570.47	2568.87	2567.24	2565.58	2563.89	2562.17	2560.41	2558.63	2556.82	2554.98	2553.12	2551.23	2549.31	2547.36	2545.39	2543.40	2541.38	2539.34	2537.28	2535.19	2533.09	2530.96	2528.81	2526.64	2524.46	2522.25	2520.03	23/25
1864.39	1871.56	1878.68	1885.75	1892.79	1899.77	1906.72	1913.62	1920.49	1927.31	1934.10	1940.84	1947.55	1954.23	1960.87	1967.47	1974.05	1980.59	1987.09	1993.57	2000.02	2006.44	2012.83	2019.19	2025.53	2031.84	2038.12	2044.38	2050.62	23/F3
2.0196	2.0000	1.9802	1.9604	1.9406	1.9206	1.9006	1.8806	1.8604	1.8402	1.8199	1.7995	1.7790	1.7585	1.7378	1.7171	1.6963	1.6754	1.6545	1.6334	1.6123	1.5910	1.5697	1.5483	1.5267	1.5051	1.4834	1.4616	1.4397	A CALL
6.6794	6.6961	6.7130	6.7300	6.7472	6.7645	6.7819	6.7996	6.8174	6.8353	£28.0	6.8718	6.8903	6.9090	6.9279	6.9469	6.9662	6.9857	7.0054	7.0254	7.0455	7.0659	7.0865	7.1074	7.1285	7.1498	7.1715	7.1933	7.2155	STATE OF
4.6598	4.6962	4.7328	4.7696	4.8066	4.8438	4.8813	4.9190	4.9570	4.9952	5.0336	5.0723	5.1113	5.1505	5.1900	5.2298	5.2699	5.3103	5.3510	5.3919	5.4332	5 4749	5.5168	5.5591	5.6017	5.6447	5.6880	5.7318	5.7758	KU/AN D

226 2				218 2	216 2	214 2	212 1	210 1	208	206 1	204 1	202	200	198 1	196 1	194 1	192			186						174	172	170	C
2595.84	2500.45	2407.80	2317.83	2230.49	2145.71	2063.46	1983.67	1906.30	1831.29	1758.60	1688.17	1619.96	1553.92	1489.99	1428.14	1368.30	1310.45	1254.53	1200.50	1148.30	1097.91	1049.27	1002.34	957.072	913.436	871.384	830.875	791.870	P kPa
0.001200	0.001197	0.001193	0.001189	0.001186	0.001182	0.001179	0.001176	0.001172	0.001169	0.001166	0.001163	0.001159	0.001156	0.001153	0.001150	0.001147	0.001144	0.001141	0.001139	0.001136	0.001133	0.001130	0.001128	0.001125	0.001122	0.001120	0.001117	0.001115	v <sub>r</sub> m3//kg
0 077021	0.079935	0 082979	0.086158	0.089481	0.092955	0.096588	0.100390	0.104369	0.108535	0.112899	0.117472	0.122266	0.127293	0.132568	0.138105	0.143919	0.150027	0.156446	0.163195	0.170295	0.177767	0.185635	0.193922	0.202656	0.211865	0.221580	0.231834	0.242662	V <sub>e</sub> m3/kg
0.075820	0.078738	0.081785	0 084969	0.088295	0.091773	0.095409	0.099214	0.103196	0.107366	0.111733	0.116309	0.121106	0.126137	0.131415	0.136955	0.142772	0.148882	0.155304	0.162057	0.169159	0.176634	0.184504	0.192794	0.201531	0.210743	0.220461	0.230717	0.241547	¥4 ■3/fcg
971.397	962.071	952.772	943.498	934.250	925,026	915.828	906.653	897.501	888.373	879.268	870.184	861.123	852.082	843.063	834.064	\$25.086	816.127	807.187	798.266	789.364	780.480	771.613	762.764	753.931	745.116	736.316	727.532	718.764	lay kJ/kg
2801.14	2800 72	2800.23	2799.68	2799.07	2798.40	2797.67	2796.88	2796.02	2795.11	2794.14	2793.11	2792.02	2790.87	2789.67	2788.41	2787.09	2785.72	2784.30	2782.83	2781 29	2779.71	2778.07	2776.39	2774.65	2772.87	2771.03	2769.15	276722	a, kI/kg
1829.74	1838.65	1847.46	1856.19	1864.82	1873.38	1881.84	1890.22	1898.52	1906.74	1914.87	1922.92	1930.89	1938.79	1946.61	1954.34	1962.01	1969.60	1977.11	1984.56	1991.93	1999.23	2006.46	2013.62	2020.72	2027.75	2034.71	2041.62	2048.45	FIVE **
968.281	959.079	949.899	940.741	931.605	922.489	913.395	904.321	895.267	886.232	877.217	868.222	859.244	850.286	841.345	832.422	823.516	814.627	805.755	796 899	788.060	779.236	770.427	761.634	752.855	744.091	735.340	726.604	717.881	FILE
2601.21	2600.84	2600.44	2599.98	2599.49	2598.95	2598.36	2597.74	2597.06	2596.35	2595.59	2594.79	2593.95	2593.07	2592.14	2591.18	2590.17	2589.12	2588.03	2586.91	2585.74	2584.54	2583.29	2582.01	2580.69	2579.34	2577.95	2576.52	2575.06	EJI'LE
1632.93	16#1.77	1650.54	1659.24	1667.88	1676.46	1684.97	1693.41	1701.80	1710.12	1718.38	1726.57	1734.71	1742.78	1750.80	1758.75	1766.65	1774.49	1782.28	1790.01	1797.68	1805.30	1812.87	1820.38	1827.84	1835.25	1842.61	1849.92	1857.18	EJ/Es
2.5660	2.5478	2.5295	2.5113	2 4929	24746	2.4562	2.4377	2.4193	2.4007	2.3822	2.3635	2.3449	2.3262	2.3074	2 2886	2.2697	2.2508	2.2319	2 2129	2.1938	2.1747	2.1555	2.1363	2.1170	2.0976	2.07\$2	2.0588	2.0392	N Maria
6.2388	6.2530	6.2673	6.2817	6 2960	6.3104	6.3249	6.3394	6.3540	6.3686	6.3833	6.3981	6.4129	6.4279	6.4428	6.4579	6.4731	6.4883	6.5037	6.5191	6.5346	6.5502	6.5660	6.5818	6.5978	6.6139	6.6301	6.6464	6.662\$	S <sub>3</sub> kJ/kg K
3.6728	3.7053	3.7378	3.7704	3.8031	3.8358	3.8687	3.9017	3.9347	3.9679	4.0012	4.0346	4.0681	4.1017	4.1354	4.1693	4.2033	4.2375	4.2718	4.3062	4.3408	4.3756	4.4105	4.4456	4.4808	4.5162	4.5518	4.5876	4.6236	N Styfe

RPa         m3/kg         m3/kg         m3/kg         LFPa         LFPa         LFPa         LFPa         LFPa         LFPa         LFPa         LFPa         LFPa         LFFa         <		_	1.170	7	ř	*	*	*
8         2694.01         0.001204         0.074229         0.073025         980.750           0         2795.02         0.001212         0.076291         0.070346         990.131           4         2795.02         0.001212         0.06891         0.067779         990.539           4         3005.81         0.001212         0.066372         0.06779         990.539           6         3115.69         0.001220         0.064174         0.062954         1018.44           8         3228.65         0.001228         0.061739         0.058511         1037.46           2         3344.74         0.001228         0.057654         0.058511         1047.02           4         3386.55         0.001237         0.055651         0.05414         1056.61           5         347.24         0.001237         0.055651         0.05414         1056.61           6         377.23         0.001246         0.055651         0.05411         1056.61           7         4464.02         0.001246         0.055631         0.055631         1047.02           8         3841.61         0.001240         0.048561         0.055631         1055.06           9         4450.47	1			- 4 (F			1	,
8         2694.01         0.001204         0.074229         0.07345         980.750           0         2795.02         0.001208         0.071555         0.070346         990.539           4         3005.81         0.001212         0.068991         0.067379         990.539           4         3005.81         0.001220         0.064174         0.062954         1018.44           8         3115.69         0.001220         0.064174         0.062954         1018.44           8         3228.65         0.001224         0.064174         0.062954         1018.44           9         3344.74         0.001224         0.056913         0.056851         1027.94           0         3344.74         0.001237         0.055051         0.056421         1047.02           4         3386.55         0.001234         0.056421         1047.02         2           4         3384.61         0.001246         0.056421         1045.61         2           5         3712.39         0.001246         0.056421         1045.62         2           6         3712.30         0.001246         0.056421         1046.23         2           7         4110.40         0.001256	22.02	Sales Sales		K. I.V.E.	34/17	LINE K	Elace K	N STUTE
0         2795.02         0.001208         0.071555         0.070346         990.131           2         2898.94         0.001212         0.068901         0.067779         999.539           4         3005.81         0.001216         0.066532         0.065316         1008.98           6         3115.69         0.001220         0.064174         0.062954         1018.44           8         3228.65         0.001224         0.061911         0.0628511         1037.46           9         3344.04         0.001234         0.059739         0.058511         1037.46           2         3464.02         0.001237         0.055851         1047.02         2           4         3386.55         0.001237         0.055651         1045.02         1056.03           8         344.64         0.001242         0.053727         0.054414         1056.01           9         374.26         0.001242         0.053727         0.054414         1056.03           1         4.110.40         0.001256         0.046346         0.044866         1105.06           1         4.250.11         0.001265         0.045486         1104.47         2           1         4.540.47	0.073025	2801.50 1820.75	977.506	2601.53	1624.02	2.5841	6 22 46	3.6404
2         2898.94         0.001212         0.068991         0.067779         999.539           4         3005.81         0.001216         0.066532         0.065316         1.008.98           6         3115.69         0.001220         0.064174         0.065316         1.018.44           8         3228.65         0.001224         0.061911         0.060887         1.027.46           9         3344.74         0.001228         0.059739         0.058511         1.037.46           4         3586.55         0.001237         0.057654         0.054144         1.056.01           8         344.02         0.001242         0.051878         0.054144         1.056.01           9         374.26         0.001242         0.051878         0.054836         1.065.63         1           1         4110.40         0.001246         0.051877         0.054836         1.056.23         2           2         4110.40         0.001266         0.051877         0.050435         1.056.33         1           3         4450.47         0.001266         0.045144         0.04536         1.114.47         2           4         450.47         0.001286         0.04589         0.04589	0.070346 990.131	2801.80 1811.67	986.754	2601.80	1615.05	2.6023	6.2104	3.6081
4         3005.81         0.001216         0.066532         0.065316         1008.98           6         3115.69         0.001220         0.0661174         0.062954         1018.44           8         3228.65         0.001224         0.061911         0.060687         1027.94           9         3344.74         0.001238         0.057654         0.056421         1037.46           4         3586.55         0.001242         0.055651         0.05414         1056.13           6         3712.39         0.001242         0.055651         0.05414         1056.23           8         3841.61         0.001242         0.051878         0.05418         0.05418           9         3974.26         0.001241         0.051878         0.05418         0.05418           1         4250.11         0.001246         0.051878         0.04538         0.04538           1         450.47         0.061256         0.046747         0.04538         0.04538           1         450.47         0.061276         0.0453641         0.04538         0.04536           1         450.47         0.061275         0.0453641         0.04536         0.045364           1         4691.25	0.067779 999.539	2802.03 1802.49	996.025	2602.03	1606.00	2.6204	6,1963	3 5750
6         3115.69         0.001220         0.064174         0.062954         1018.44           8         3228.65         0.001224         0.061911         0.060687         1027.94           0         3344.74         0.001233         0.057654         0.056421         1047.02           4         3586.55         0.001237         0.055651         0.05414         1056.01           4         3586.55         0.001242         0.055651         0.05148         1056.02           5         3712.39         0.001242         0.053727         0.051486         1056.23           8         3841.61         0.001242         0.051878         0.051486         1056.23           1         4110.40         0.001246         0.051079         0.045486         1105.06           2         4110.40         0.001256         0.045747         0.045486         1105.06           3         4393.44         0.001260         0.045747         0.045486         1114.85         2           4         450.125         0.001281         0.045361         0.04548         1114.47         2           5         500.433         0.001281         0.045491         0.04548         1144.47         2	0.065316 1008.98	2802.19 1793.22	1005.32	2602.21	1596.89	2.6384	6.1821	3.5437
8         3228.65         0.001224         0.061911         0.060687         1027.94           9         3344.74         0.001228         0.059739         0.058511         1037.46           4         3586.55         0.001233         0.057654         0.05414         1056.61           4         3586.55         0.001242         0.055651         0.052486         1047.02           8         3841.61         0.001245         0.053727         0.052486         1056.23           9         3974.26         0.001256         0.051878         0.05486         1055.86           1         4110.40         0.001256         0.046747         0.047135         1056.38           1         4250.11         0.001256         0.046747         0.04536         1114.85         2           1         450.12         0.001275         0.0453641         0.04536         1114.47         2           1         450.40.47         0.001281         0.040763         0.045483         1144.47         2           2         4691.25         0.001281         0.040763         0.045483         1144.47         2           2         5004.38         0.001281         0.045803         0.035812         1	0.062954 1018.44	2802.30 1783.85	1014.64	2602.35	1587.71	2.6564	6.1680	3 5116
0         3344.74         0.001228         0.059739         0.058511         1037.46           1         3464.02         0.001233         0.057654         0.056421         1047.02           4         3586.55         0.001247         0.053651         0.054414         1056.61           3         344.61         0.001245         0.053727         0.052486         1075.89           3         341.61         0.001246         0.051878         0.050432         1075.89           4         4110.40         0.001256         0.046747         0.04735         105.06           4         4393.44         0.001256         0.046747         0.04389         1114.85         2           4         4393.44         0.001275         0.046747         0.04389         1114.85         2           4         4393.44         0.001275         0.046747         0.04389         1114.47         2           4         450.47         0.001275         0.045041         0.04389         1114.47         2           5         4691.25         0.001281         0.04369         0.03583         1144.47         2           5         5004.38         0.001291         0.036809         1164.41	0.060687 1027.94	2802.33 1774.39	1023.99	2602.44	1578.46	2.6744	6.1539	3.4795
2         3464.02         0.001233         0.057654         0.056421         1047.02           4         3586.55         0.001247         0.055651         0.054414         1056.61           6         3712.39         0.001242         0.053727         0.052486         1056.23           8         3841.61         0.001246         0.051878         0.050632         1075.89           9         3974.26         0.001254         0.050100         0.048850         1075.89           1         4250.11         0.001256         0.046747         0.04735         1095.30           1         4250.11         0.001260         0.046747         0.043899         1114.85           1         4501.25         0.001270         0.045164         0.045360         1134.56           1         4691.25         0.001275         0.045164         0.045300         1144.47           2         5064.33         0.001281         0.045801         1.154.42         2           5         5064.33         0.001291         0.035812         1.154.41         2           2         5064.33         0.001291         0.035812         1.164.41         2           2         5333.25         0.0013	0.058511 1037.46	2802.30 1764.84	1033.36	2602.49	1569.13	2.6923	6.1398	3 4475
4         3586.55         0.001237         0.055651         0.05414         1056.61           8         341.61         0.001242         0.053727         0.052486         1066.23           8         3841.61         0.001245         0.050100         0.048850         1075.89           9         3974.26         0.001251         0.050100         0.048850         1085.58           1         4250.11         0.001256         0.046747         0.047135         1095.30           1         4250.11         0.001260         0.045164         0.045186         1104.85           1         4250.11         0.001270         0.045164         0.045899         1114.85           1         4540.47         0.001279         0.045841         0.045391         1124.69           2         4691.25         0.001281         0.04581         1144.47         1154.42           3         5004.33         0.001281         0.045829         0.035831         1144.47         1154.42           5         5004.33         0.001291         0.035829         0.035831         1164.41         1154.42           5         5333.25         0.001309         0.035829         0.035830         1124.64 <t< th=""><th>0.056421 1047.02</th><th>2802.21 1755.19</th><td>1042.75</td><td>2602.49</td><td>1559.74</td><td>2.7102</td><td>6.1258</td><td>34155</td></t<>	0.056421 1047.02	2802.21 1755.19	1042.75	2602.49	1559.74	2.7102	6.1258	34155
6         3712.39         0.001242         0.053727         0.052486         1066.23           8         3&41.61         0.001246         0.051878         0.050632         1075.89           9         3974.26         0.001256         0.048391         0.047135         1095.30           1         4110.40         0.001256         0.046391         0.047135         1095.30           1         4250.11         0.001256         0.046747         0.047135         1095.30           1         4250.11         0.001260         0.046747         0.047135         1105.06           1         4540.47         0.001275         0.046340         0.043899         1114.85           1         4691.25         0.001275         0.040763         0.040309         1134.42           2         5004.33         0.001281         0.040763         0.036811         1154.41           2         5004.33         0.001286         0.040763         0.036801         1164.41           3         5166.78         0.001291         0.036802         0.036801         1164.41           2         5503.82         0.001303         0.03437         0.034309         1124.42           2         5678.56	0.05414 1056.61	2802.05 1745.43	1052.17	2602.45	1550.28	2.7281	6.1117	3.3836
8         3&41.61         0.001246         0.051878         0.050632         1075.89           9         3974.26         0.001251         0.050100         0.048850         1085.58           4110.40         0.001256         0.046391         0.047135         1095.30           4393.44         0.001260         0.045164         0.045486         1114.85           4540.47         0.001270         0.045164         0.045380         1114.85           4691.25         0.001275         0.042371         1124.69           4691.25         0.001275         0.042371         1124.69           5004.33         0.001281         0.042371         1154.47           5004.33         0.001286         0.042175         0.04090         1134.56           5166.78         0.001286         0.038093         0.038117         1154.41           5508.32         0.001291         0.038093         0.034309         1184.52           5508.56         0.001303         0.034309         1204.81         2           5508.56         0.001303         0.034309         1204.81         2           5606.80         0.001315         0.031990         1204.81         2           6040.80         0.	0.052486 1066.23	2801.82 1735.58	1061.62	2602.36	1540.74	2.7460	1160.9	3.3517
974.26         0.001251         0.050100         0.048850         1085.58           4110.40         0.001256         0.046391         0.047135         1095.30           4250.11         0.001260         0.046747         0.043899         1114.85           4393.44         0.001275         0.045164         0.043899         1114.85           4540.47         0.001275         0.045641         0.040371         1124.69           4691.25         0.001275         0.040763         0.040900         1134.56           5004.33         0.001281         0.040763         0.038117         1154.42           5166.78         0.001286         0.038093         0.036801         1164.41           5166.78         0.001291         0.038093         0.034309         1184.52           5503.82         0.001309         0.034309         1184.52         2           5503.82         0.001309         0.034309         1194.64         2           5503.82         0.001315         0.034337         0.034309         1194.64           5503.82         0.001315         0.034337         0.034309         1255.29           6040.80         0.001327         0.031359         0.029830         1215.01	0.050632 1075.89	2801.52 1725.63	1071.10	2602.23	1531.13	2.7638	6.0836	3.3199
2         4110.40         0.001256         0.046391         0.047135         1095.30           4         4250.11         0.001260         0.046747         0.045486         1105.06           4         4393.44         0.001265         0.045164         0.043899         1114.85           4         450.25         0.001270         0.043641         0.042371         1124.69           4         4691.25         0.001275         0.042175         0.040900         1134.56           5         4691.25         0.001271         0.042073         0.039403         1144.47           5         5004.33         0.001286         0.039403         0.038117         1154.42           5         5004.33         0.001291         0.038029         0.038117         1164.41           5         5004.33         0.001297         0.038029         0.034309         1164.44           5         5503.82         0.001303         0.034309         0.034309         1104.44           5         5503.82         0.001303         0.034309         0.034309         1194.64           5         5678.56         0.001315         0.034309         0.031990         1204.81           6         6040.58	0.048850 1085.58	2801.16 1715.58	1080.60	2602.05	1521.44	2.7815	9690.9	3.2880
4250.11         0.001260         0.046747         0.045486         1105.06           4393.44         0.001265         0.043641         0.043899         1114.85           4540.47         0.001276         0.042371         1124.69           4691.25         0.001275         0.042175         0.040600         1134.56           5004.33         0.001281         0.040763         0.036483         1144.47         1154.42           5166.78         0.001281         0.038093         0.036801         1164.41         1154.42           5166.78         0.001291         0.038093         0.036801         1164.41         1154.42           5503.82         0.001291         0.036802         0.036801         1164.41         1154.42           5503.82         0.001303         0.035612         0.034309         1184.52         1174.44           5503.82         0.001303         0.034304         0.034309         1204.81         1206.81           6040.80         0.001321         0.033304         0.031990         1204.81         1215.03           6040.58         0.001321         0.031157         0.029830         1215.03         1215.01	0.047135 1095.30	2800.73 1705.43	1090.14	2601.82	1511.68	2.7993	6.0555	3.2562
5         4393.44         0.001265         0.045164         0.043899         1114.85           1         4540.47         0.001270         0.043641         0.042371         1124.69           1         4691.25         0.001275         0.042175         0.040900         1134.56           1         4845.85         0.001281         0.040763         0.039483         1144.47           1         5004.33         0.001286         0.039403         0.039483         1164.41           1         5166.78         0.001291         0.038093         0.036801         1164.41           1         5333.25         0.001297         0.034809         0.034309         1184.52           2678.56         0.001303         0.034437         0.034309         1194.64           5678.57         0.001315         0.034437         0.034309         1215.03           6040.80         0.001321         0.032310         0.031990         1215.03           6420.58         0.001333         0.031157         0.029830         1215.61	0.045486 1105.06	2800 23 1695.17	1009.70	2601.55	1501.85	2.8170	6.0414	3.2245
4540.47         0.001270         0.043641         0.042371         1124.69           4691.25         0.001275         0.042175         0.040900         1134.56           4845.85         0.001281         0.040763         0.038483         1144.47           5004.33         0.001286         0.038093         0.038117         1154.42           5166.78         0.001291         0.038093         0.036801         1164.41           5333.25         0.001297         0.036829         0.034309         1184.52           5503.82         0.001303         0.035612         0.034309         1184.52           5678.56         0.001315         0.034309         1204.81         26040.80           6040.80         0.001315         0.033304         0.031990         1204.81           6040.80         0.001327         0.031580         1225.29         2620.88           6420.58         0.001333         0.030138         0.029830         1235.61         2335.61	0.043899 1114.85	2799.66 1624.81	1109.39	2601.23	1491.94	2.8346	6.0273	3.1927
4691.25         0.001275         0.040763         0.040963         1134.56           5004.38         0.001281         0.040763         0.039483         1144.47           5004.38         0.001286         0.039403         0.039483         1154.42           5166.78         0.001291         0.038093         0.036801         1164.41           5333.25         0.001297         0.038029         0.034309         1174.44           5503.82         0.001303         0.034309         1184.52         2           5678.56         0.001315         0.034437         0.034309         1194.64         2           6040.80         0.001315         0.033304         0.031990         1204.81         2           6040.80         0.001321         0.032211         0.030891         1215.03         2           6420.58         0.001333         0.031157         0.029830         1235.61         2	0.042371 1124.69	2799.02 1674.34	1118.92	2600.87	1481.95	2.8523	6.0132	3.1610
4845.85         0.001281         0.040763         0.039483         1144.47           5004.33         0.001286         0.039403         0.038117         1154.42           5166.78         0.001291         0.038093         0.034301         1164.41           5333.25         0.001297         0.036829         0.034302         1174.44           5503.82         0.001303         0.034302         1184.52           5678.56         0.001315         0.034307         1194.64           5857.53         0.001315         0.033304         0.031990         1204.81           6040.80         0.001327         0.031357         0.029830         1215.03           6420.58         0.001333         0.031157         0.029830         1225.29	0.040900 1134.56	2798.32 1663.76	1128.57	2600.46	1471.89	2.8699	5.9991	3.1293
5004.33         0.001286         0.039403         0.038117         1154.42           5166.78         0.001291         0.038093         0.036801         1164.41           5333.25         0.001297         0.036829         0.034309         1174.44           5503.82         0.001303         0.034309         1184.52           5678.56         0.001315         0.034437         0.031329         1194.64           5857.53         0.001315         0.033304         0.031990         1204.81           6040.80         0.001321         0.032211         0.030891         1215.03           6420.58         0.001333         0.031157         0.028805         1235.61	0.039483 1144.47	797.54 1653.08	1138.26	2600.01	1461.75	2.8874	5.9850	3.0976
\$166.78         0.001291         0.038093         0.036801         1164.41           \$333.25         0.001297         0.036829         0.035532         1174.44           \$503.82         0.001303         0.034437         0.033129         1194.64           \$678.56         0.001309         0.034437         0.033129         1194.64           \$857.53         0.001315         0.033304         0.031990         1204.81           6040.80         0.001321         0.032211         0.030891         1215.03           6420.58         0.001333         0.030138         0.028805         1235.51	0.038117 1154.42	796.70 1642.28	1147.98	2599.51	1451.53	2.9050	5.9708	3.0659
5333.25         0.001297         0.036829         0.035532         1174.44           5503.82         0.001303         0.035612         0.034309         1184.52           5678.56         0.001309         0.034437         0.031329         1194.64           5857.53         0.001315         0.033304         0.031990         1204.81           6040.80         0.001321         0.032211         0.030891         1215.03           6420.58         0.001333         0.030138         0.028805         1235.20	0.036801 1164.41	95.79 1631.38	1157.74	2598.97	141.23	2.9225	5.9566	3.0342
5678.56     0.001303     0.035612     0.034309     1184.52       5678.56     0.001309     0.034437     0.033129     1194.64       5857.53     0.001315     0.033304     0.031990     1204.81       6040.80     0.001321     0.032211     0.030891     1215.03       6420.58     0.001333     0.030138     0.028805     1235.61	0.035532 1174.44	94.80 1620.36	1167.53	2598.38	1430.86	2.9399	5.9424	3.0025
5678.56         0.001309         0.033437         0.033129         1194.64           5857.53         0.001315         0.033304         0.031990         1204.81           6040.80         0.001321         0.032211         0.030891         1215.03           6228.47         0.001327         0.031157         0.029830         1225.29           6420.58         0.001333         0.030138         0.028805         1235.61	0.034309 1184.52	93.75 1609.23	1177.35	2597.75	1420.40	2.9574	5.9282	2,9706
5857.53         0.001315         0.033304         0.031990         1204.81           6040.80         0.001321         0.032211         0.030891         1215.03           6228.47         0.001327         0.031157         0.029830         1225.29           6420.58         0.001333         0.030138         0.028805         1235.61	0.033129 1194.64	92.62 1597.98	1187.21	2597.07	1409.86	2.9748	5.9139	2 0301
6040.80         0.001321         0.032211         0.030891         1215.03           6228.47         0.001327         0.031157         0.028805         1235.29           6420.58         0.001333         0.030138         0.028805         1235.61	0.031990 1204.81	91.43 1586.62	1197.11	259635	1399.23	2 9921	\$ 2005	2 0074
6420.58         0.001333         0.031157         0.028805         1235.29	0.030891 1215.03	90.16 1575.13	1207.05	2595.58	1388.53	3.0094	5.8852	2.8757
6420.58 0.001333 0.030138 0.028805 1235.61	0.029830 1225.29	<b>58.8</b> 2 1563.53	1217.03	2594.76	1377.73	3.0267	5.8707	2,8440
	0.028805 1235.61	87.41 1551.80	1227.05	2593.91	1366.86	3.0440	5.8562	2.8123
6617 23 0.001340	0.027816 1245.98	85.93 1539.95	1237.12	2593.01	1355.89	3.0612	5.8417	2.7805
284   6818.48   0.001346   0.028206   0.026859   1256.40   2784.38	0.026859 1256.40	84.38 1527.98	1247.22	2592.06	1344.84	3.0784	5.8271	2.7488

C         LPs         m.Márg         m.Márg         Lata         Lata <th< th=""><th>H</th><th>P</th><th>*</th><th><u>ئ</u>و ا</th><th>4</th><th></th><th></th><th> </th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	H	P	*	<u>ئ</u> و ا	4									
10	Ų	3	m3/fer	* 25	F	1 1	* ;	#	ř	RI <sup>30</sup>	ř	*	ž	*
88         7255.11         0.001360         0.025545         0.025545         1.200.18         2.782.71         1.201.35         1.201.35         1.515.87         1.257.35           90         7450.65         0.001367         0.025545         0.025545         0.025343         12775.23         1466.14         12775.33         1406.14         12775.33         1406.14         1278.13         25775.44         1477.44         1477.44         1478.13         1288.13         298.12         27775.44         1477.44         1478.13         1288.13         298.12         27775.43         1456.14         1278.13         1288.13         1288.13         1288.13         12777.44         1470.44         1319.35         298.13         12777.44         1470.44         1319.35         298.13         12777.44         1470.44         1319.35         298.13         12777.47         1440.44         1319.35         298.13         12777.47         1440.44         1319.35         298.13         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         1319.35         1400.44         <	286	7024 43	╁╴	╁	30000			7		LINE	EINE	LINEK	LIAK K	LIRE K
90         752.14         750.15         750.15         750.15         750.15         750.15         750.25         1201.55         750.15         1201.55         1201.55         1201.55         1401.27         1201.55           92         7671.10         0.001374         0.025345         0.027335         1208.60         1775.53         1460.27         1775.33         1401.61         1208.62           94         7806.54         0.00137         0.023142         0.027335         1208.03         2777.54         1453.36         1308.82           96         8127.07         0.001380         0.021042         0.020343         0.020344 <t< td=""><td>288</td><td>7235 11</td><td>╁╴</td><td>+-</td><td>V.U.233</td><td>\$9 007 T</td><td>27.02.75</td><td>1515.87</td><td>1257.38</td><td>2591.07</td><td>1333.69</td><td>3.0955</td><td>5.8125</td><td>2.7170</td></t<>	288	7235 11	╁╴	+-	V.U.233	\$9 007 T	27.02.75	1515.87	1257.38	2591.07	1333.69	3.0955	5.8125	2.7170
250         CTATOLOS         DUBISAR         0.023545         0.023478         1.286.01         2770.44         1478.77         1.278.13           94         7896.54         0.001374         0.023547         0.02347         0.02347         1.028.44         1775.44         1478.77         1.288.13           96         8127.05         0.001389         0.023497         0.022343         1.208.63         1.453.36         1.386.64         1.386.84           98         8127.06         0.001405         0.022349         0.020249         1.310.93         2.777.47         1443.46         1.318.84           90         8603.69         0.001405         0.020288         0.001655         1.319.66         2.767.13         144.64         1.318.84           90         8603.69         0.001405         0.010554         1.352.96         2.767.13         144.64         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88         1.318.84         2.777.44         140.88	ģ	20 0365	┿	+	0.022042	1277.42	2781.06	1503.64	1267.51	2590.03	1322.46	3.1126	1767.5	2.6857
94         7896.54         0.001374         0.0224717         0.022435         1298.67         2777.54         1478.77         1288.13           94         7896.54         0.001382         0.022471         0.022435         1309.39         2775.53         1466.14         1298.48           98         8127.07         0.001389         0.021342         0.022473         1310.13         2777.54         1453.36         1308.89           90         8603.69         0.001405         0.021369         0.020260         0.020369         1311.03         2777.54         1457.38         1329.87           10         8603.69         0.001405         0.021669         0.020266         0.018667         1311.05         2776.73         1441.16         1340.45           10         8603.69         0.001443         0.018697         0.018697         0.01755         1366.44         136.44         1375.19         1467.76         136.44         1375.99         1376.78         138.43         1476.44         137.59         136.44         176.44         137.59         136.44         176.44         137.59         136.44         176.44         137.58         136.44         176.44         176.44         176.44         176.44         176.44         176.44	2	COUNCE	┿	-	—⊢	1288.01	27.79.29	1491.27	1277.83	2588.96	1311.13	3.1296	5 78 30	2,653.2
96         17896.54         0.001382         0.023917         0.023942         1309.39         2775.54         1466.14         1298.48           96         8127.07         0.001380         0.023942         0.021753         1320.18         2777.54         1453.36         1308.89           90         8603.69         0.001405         0.022969         1331.03         2777.47         1440.44         1319.35           90         8603.69         0.001405         0.020564         1352.96         2765.31         1447.6         1340.45           94         9101.63         0.001430         0.019631         0.018667         1354.94         2764.84         1440.89         1351.10           95         9580.03         0.001449         0.018673         0.018673         1364.94         1367.95         1357.84         1359.78         1358.43           1         10164.24         0.001446         0.017020         0.016931         1397.76         1365.94         1359.78         1364.36           2         10164.24         0.001446         0.017020         0.016931         1397.76         1359.78         1364.36         1364.96           4         10444.42         0.001446         0.0101763         0.016931	3 6	7071.10		-	_	1298.67	2777.44	1478.77	1288.13	2587.83	1299.71	3 1466	2 7691	36715
96         8127.07         0.001380         0.023442         0.021043         1370.18         2771.47         1440.44         1319.35           98         8362.76         0.001367         0.020369         1331.03         2771.47         1440.44         1319.35           90         8603.66         0.001405         0.021669         0.020264         132.96         276.13         141.16         1340.45           10         8803.66         0.001431         0.020267         0.019554         132.96         276.13         141.16         1340.45           10         9328.81         0.001430         0.019631         0.018595         0.01755         136.43         276.05         1373.62         136.34           10         9800.13         0.001448         0.01637         0.01775         136.43         276.05         1373.62         1373.44         2           2         1016424         0.001445         0.017782         0.01637         1409.17         275.46         1375.49         1375.49         2           4         1044432         0.001445         0.017782         0.016773         1409.17         275.46         1345.79         1405.44         2           5         1004446         0.017	4	7896.54	-+	-	0.022535	1309 39	2775.53	1466.14	1298 42	2586 67	1288 10	2 1626	25.36.3	2.22.2
98         8362.76         0.001397         0.022393         0.020263         1331.03         2771.47         1440.44         1319.35           90         8603.69         0.001405         0.021669         0.020263         1341.96         2765.34         1477.8         1329.87           91         8849.56         0.001413         0.020067         0.019631         1352.96         2767.13         1414.16         1340.45           94         9101.63         0.001430         0.019631         0.018867         1364.04         2767.48         1387.92         1311.10           95         9358.81         0.001430         0.018895         0.017556         1386.43         276.05         1375.89         1376.89           10         9890.03         0.001446         0.018737         1406.17         2757.54         1359.78         1383.44         2           2         10164.24         0.001456         0.01703         0.015737         1470.55         135.75         1405.36         1405.36           4         10444.22         0.001456         0.016043         0.015073         1432.88         1745.79         1405.44         2           5         1002446         0.016043         0.016043         0.016043	796	8127.07	0.001389		0.021753	1320.18	2773 54	1453 36	1306 90	36 3636	1076 60	3.1033	2,7352	2.5896
00         8603 69         0.001405         0.021669         0.02263         1341 96         276534         142738         1329.87           02         8849 56         0.001413         0.020967         0.019554         1352.96         2767.13         1414.16         1340.45           04         9101.63         0.001431         0.020988         0.018867         1364.04         2764.84         1440.80         1351.80           06         9358.81         0.001430         0.018895         0.017556         1364.04         2764.84         1387.29         137.80           0         9890.03         0.001448         0.018895         0.017556         1386.43         2760.05         1373.62         137.80           1         1016424         0.001457         0.016379         0.01637         1409.17         275.496         1345.36         1343.36           4         1044432         0.001466         0.01702         0.01577         1400.17         1402.87         1405.36         1405.36           5         1073034         0.001466         0.015643         0.015643         0.015757         1400.17         1432.87         1345.87         1416.44         2764.44         1405.36         1416.44         2764.84	862	8362.76	0.001397	0.022393	0.020996	1331 03	27.1.47	1440.44	1210 25	25.00.40	12,037	180	5.7382	2.5578
02         8849.96         0.001413         0.020967         0.019554         1352.96         2767.13         1414.16         1350.46           94         9101.63         0.001421         0.020288         0.018867         1364.04         2764.84         1400.80         1351.10           96         9358.81         0.001430         0.018897         0.01550         1355.19         2762.48         1387.29         1371.80           10         9890.03         0.001448         0.018897         0.01653         1366.43         2760.05         1373.62         1375.59           2         1016424         0.001448         0.017203         0.016329         1400.17         2754.96         1375.79         1384.36           4         10-444.32         0.001446         0.017203         0.016073         1400.17         2754.96         1375.8         1405.16           5         10730.34         0.001446         0.01609         0.016107         1400.88         1405.76         130.77         1405.36         2740.48         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         1405.36         140	300	8603.69	0.001405	_		1341 06	27/60 24	1,677.30	2370 07	2584.20	1264.85	3.1972	5.7231	2.5259
94         9101.63         0.001421         0.020288         0.018867         1361.04         2764.84         1400.80         1351.10           106         9558.81         0.001430         0.018671         0.018507         1375.19         2764.84         1400.80         1351.10           10         9890.03         0.001439         0.018995         0.017556         1386.43         2765.65         1375.54         1375.75         1376.75         1376.75         1376.75         1376.75         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1376.44         2         1405.44         2         2         1405.44         2         1405.44         2         1405.44         2         1336.44         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.44         2         1405.64         2         1405.44         2<	302	8849.96	0.001413	0.020967		1353 06	17.62.13	116/130	13.23.87	16 72 67	1253.04	3.2139	5.7079	2.4940
06         9358.81         0.001430         0.019631         0.018201         1375.19         2764.48         1367.29         1351.10           10         9890.03         0.001439         0.018995         0.017556         1386.43         2760.05         1373.62         1372.59           2         10164.24         0.001448         0.018792         0.016931         1397.76         2757.54         1359.78         1361.81           4         10444.32         0.001457         0.016932         1409.17         2754.96         1345.79         1383.44           5         10165.24         0.001456         0.01782         0.015673         1420.68         1317.28         1416.44           6         10730.34         0.001466         0.015673         1420.68         2746.75         1302.77         1405.46           8         11022.41         0.001466         0.015673         0.01467         1443.98         2748.75         1302.77         1416.44           9         11320.63         0.015673         0.01467         1447.98         1467.71         2743.87         1238.08         1466.42         2743.87         1427.61         2743.87         1427.61         275.61         275.62         1467.71         275.62	304	9101.63	0.001421	0.020288	0.018867	136404	2766.00	01 +147	1340.43	2581.57	1741.11	3.2306	5.6927	2.4621
8         9621.58         0.001430         0.018595         0.017556         1386.43         2760.55         137.05         1361.81         137.15         1361.24         137.15         1360.05         137.25         1364.34         2760.05         137.36         1363.44         137.15         1359.78         1364.36         137.25         1360.05         137.15         1360.05         137.15         1360.05         137.25         1360.05         137.25         1360.05         137.25         1360.05         137.25         1360.05         137.25         1360.05	306	9358.81	0.001430	0.019631	0.018701	1375 10	27.63.40	DR CON-T	1351.10	2580.18	1229.08	3.2472	5.6773	2.4302
0         9890.03         0.001448         0.018379         0.016931         1380.45         2757.54         1359.78         1373.62         1373.62           2         10164.24         0.001448         0.018379         0.016931         1397.76         2754.96         1345.79         1383.44           4         10444.32         0.001466         0.017203         0.016737         1420.68         2752.30         1311.02         1465.44         2           6         10730.34         0.001486         0.016010         0.014614         1420.28         2749.56         1317.28         1416.44         2           8         11022.41         0.001486         0.016100         0.014614         1443.98         2746.75         1302.77         1427.61         2           9         11320.63         0.001486         0.016078         1443.98         2743.87         1228.08         1432.66         1443.87         1443.87         1443.86         1443.86         1443.86         1443.87         1446.64         2         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76         1446.76	308	9621.58	0.001430	0.018005	0.017654	£1.575.	24.70/7	138/20	1361.81	2578.76	1216.95	3.2636	5.6619	2.3982
2         1016424         0.001457         0.01782         0.016325         1409.17         2754.96         1345.79         1383.44           4         1044432         0.001457         0.01782         0.016325         1409.17         2754.96         1345.79         1394.36           6         10730.34         0.001466         0.01703         0.015167         1432.82         2749.56         1317.28         1416.44           8         11022.41         0.001486         0.016100         0.014614         1443.98         2746.75         1317.28         1416.44           9         11320.63         0.001486         0.016100         0.014614         1443.98         2746.75         1302.77         1467.61           2         11625.08         0.001577         0.014678         1443.98         2744.38         1288.06         1450.00           2         11625.08         0.001577         0.014678         1455.79         2743.87         1288.06         1450.64         273.20           4         11625.08         0.001577         0.01468         0.013657         1497.43         2744.87         1473.47         1473.17           5         11625.08         0.001558         0.014588         0.012684 <t< td=""><td>310</td><td>9890 03</td><td>9771570</td><td>0.01030</td><td>0.017330</td><td>1380.43</td><td>2760.05</td><td>1373.62</td><td>1372.59</td><td>2577.29</td><td>1204.70</td><td>3.2800</td><td>5.6463</td><td>23664</td></t<>	310	9890 03	9771570	0.01030	0.017330	1380.43	2760.05	1373.62	1372.59	2577.29	1204.70	3.2800	5.6463	23664
4         1044432         0.001466         0.017203         0.01535         1406.17         2754.96         1345.79         1394.36           6         10730.34         0.001466         0.017203         0.015673         1420.68         2752.30         1311.62         1405.44           8         11022.41         0.001466         0.016100         0.014614         1443.98         2746.75         1302.77         1416.44           0         11320.63         0.001496         0.015673         0.014614         1443.98         2746.75         1302.77         1427.61           1         11320.63         0.001496         0.014078         1455.79         2743.87         1437.61         1427.61           1         11325.08         0.001496         0.013657         0.014078         1467.71         2740.91         1273.20         1450.20           1         11935.86         0.001577         0.014088         0.013657         1467.71         2737.87         1258.13         1461.64           1         11253.07         0.001538         0.013652         0.012084         1504.15         2731.87         1242.87         1473.17           1         113244.33         0.001550         0.011308         0.010232	31.5	10164 24	0 CO 1 4 CO	4.0163/9	0.010951	1397.76	275754	1359.78	1383.44	2575.77	1192.34	3.2962	5.6307	23345
6         10730.34         0.001470         0.015737         1470.68         2752.30         1331.62         1405.36           6         10730.34         0.001476         0.015643         0.015167         1432.28         2746.55         1317.28         1416.44           8         11022.41         0.001486         0.0166043         0.014614         1443.98         2746.75         1302.77         1416.44           0         11320.63         0.001486         0.015673         0.014678         1443.98         2746.75         1302.77         1427.61           1         11625.08         0.001496         0.01563         0.014678         1467.71         2740.91         1273.20         1450.40           4         11635.86         0.001577         0.014678         0.013627         1467.71         2740.91         1273.20         1461.64           5         11625.08         0.001577         0.014078         0.013627         1490.74         2737.87         1258.13         1461.64           1         11257.68         0.001538         0.013623         0.013623         0.013623         0.013623         0.013623         0.013623         1529.09         2724.96         1163.48         1           1	1 2	1641130	7007	┱	0.016325	1409.17	2754.96	1345.79	1394.36	2574.22	1179.86	3.3123	5.6150	23027
8         11022.41         0.001486         0.015167         1432.28         2746.75         1317.28         1416.44           8         11022.41         0.001486         0.014610         0.014614         1443.98         2746.75         1302.77         1427.61           0         11320.63         0.001486         0.015573         0.014078         1455.79         2743.87         1288.08         1457.61           1         11625.08         0.001506         0.015063         0.013657         1467.71         2743.87         1258.13         1461.64           5         11625.08         0.001517         0.013658         0.013657         1407.74         2737.87         1258.13         1461.64           6         11253.07         0.001527         0.012661         1491.88         2734.76         1242.87         1473.17           1         11250.82         0.001538         0.013623         0.011622         1516.55         2728.30         1211.75         1496.55           1         13244.33         0.001556         0.011372         1529.09         2724.96         1195.87         1508.41         273.48           1         13258.29         0.001573         0.011302         1549.05         154.49	* * *	10.730 3.4	001100	$\top$	0.015737	1420.68	2752.30	1331.62	1405.36	2572.62	1167.26	3.3282	5.5991	2 2 2 2 0 0
a         11022.41         0.001486         0.016100         0.014614         1443.98         2746.75         1302.77         1427.61           0         11320.63         0.001496         0.015063         0.014078         1455.79         2743.87         1288.08         1438.66           1         11525.08         0.001506         0.015063         0.013657         1467.71         2740.91         1273.20         1450.20           1         11935.86         0.001577         0.014688         0.012561         1491.88         2734.87         1258.13         1461.64           1         11253.07         0.001538         0.013623         0.012641         1504.15         2734.87         1274.87         1473.17           1         12576.82         0.001538         0.013171         0.016555         2728.30         1211.75         1496.55           1         13244.33         0.001561         0.012733         0.011172         1529.09         2724.96         1195.87         1508.41         2           13244.33         0.001585         0.011896         0.010311         1554.57         2718.94         1169.87         1508.41         2           14297.16         0.001585         0.011496         0.000331	310	10/30.34	0.001470	$\dashv$	0.015167	1432.28	2749.56	1317.28	1416.44	2570.98	1154.54	3 3430	0283.3	2 7202
2         11525.08         0.001490         0.015573         0.014078         1455.79         2743.87         1288.08         1458.69           1         11625.08         0.001506         0.015063         0.013657         1467.71         2740.91         1273.20         1450.20           1         11935.86         0.001517         0.014568         0.013652         1479.74         2734.76         1258.13         1461.64           1         1253.07         0.001537         0.012561         1491.88         2734.76         1242.87         1473.17           1         12576.82         0.001538         0.012054         1504.15         2728.30         1211.75         1496.55           1         12507.21         0.001559         0.011172         1529.09         2724.96         1195.87         1508.41           13588.29         0.001573         0.010317         1529.09         2724.96         1163.46         273.48           13588.29         0.001585         0.012308         0.010317         1554.57         2718.94         1163.46         1527.48           14297.16         0.001598         0.011496         0.009497         1580.67         2710.81         11130.14         1557.05           15034.6	210	14-77011	0.001486	→	0.014614	1443.98	2746.75	1302.77	1427.61	2569.30	1141.69	3.3594	5 5671	2 2027
4         11935.86         0.001517         0.013657         1467.71         2740.91         1273.20         1461.64           1         11935.86         0.001517         0.014568         0.013052         1479.74         2737.87         1258.13         1461.64           1         12253.07         0.001527         0.014088         0.012561         1491.88         2734.76         1242.87         1473.17           1         12257.6.82         0.001537         0.013623         0.012084         1504.15         2731.57         1227.41         1484.81           1         12207.21         0.001550         0.013171         0.011625         2728.30         1211.75         1496.55           13244.33         0.001561         0.012733         0.011172         1529.09         2724.96         1195.87         1508.41           13588.29         0.001585         0.012338         0.010311         1554.57         2718.04         1165.48         1520.38           14597.16         0.001585         0.011496         0.000389         1567.54         2710.81         1130.14         1557.05           15034.68         0.001611         0.010731         0.009497         1589.67         2710.81         1113.11         1569.55	3 5	1150500		-+	0.014078	1455.79	2743.87	1288.08	1438.86	2567.57	1128.71	3.3746	5.5510	2 1764
11253.06         0.001517         0.014568         0.013652         1479.74         2737.87         1258.13         1461.64           12553.07         0.001527         0.014088         0.012561         1491.88         2734.76         1242.87         1473.17           12576.82         0.001538         0.013623         0.012084         1504.15         2731.57         1227.41         1484.81           12907.21         0.001550         0.013171         0.011625         2728.30         1211.75         1496.55           13244.33         0.001561         0.012733         0.011172         1529.09         2724.96         1195.87         1508.41           13588.29         0.001573         0.010735         1541.76         2721.54         1179.78         1520.38           13939.20         0.001585         0.011896         0.010311         1554.57         2718.04         1165.96         1532.48           14662.29         0.001698         0.011496         0.009497         1580.67         2710.81         1130.14         1557.05           15034.68         0.001624         0.010731         0.009497         1593.96         2707.08         1113.11         1569.55         2		20 C7 D11	<del>-  </del> -	┰	0.013557	1467.71	2740.91	1273.20	1450.20	2565.80	1115.60	3 3805	\$ 52.47	2 1 453
12554.07   0.001527   0.014088   0.012561   1491.88   2734.76   1242.87   1473.17   1484.81   12576.82   0.001538   0.013623   0.011622   1516.55   2728.30   1211.75   1496.55   13244.33   0.001561   0.012733   0.011172   1529.09   2724.96   1195.87   1508.41   1484.81   13588.29   0.001573   0.010735   1541.76   2721.54   1179.78   1520.38   13939.20   0.001585   0.011896   0.010311   1554.57   2718.04   1163.46   1532.48   1520.38   14662.29   0.001631   0.011908   0.009497   1580.67   2710.81   1130.14   1557.05   15034.68   0.001624   0.010731   0.009497   1580.67   2710.81   1130.14   1557.05   1563.46   1150.14   1569.55   1263.46   1150.14   1569.55   1263.46   1150.14   1569.55   1263.46   1150.14   1569.55   1263.46   1150.14   1569.55   1263.46   1150.14   1130.14   1569.55   1263.46   1150.14   1130.14   1569.55   1263.46   1150.14   1130.14   1130.14   1269.55   1263.46   1150.14   1130.14   1269.55   1263.46   1150.14   1130.14   1269.55   1263.46   1150.14   1130.14   1130.14   1269.55   1263.46   1130.14   1130.14   1269.55   1263.46   1130.14   1130.14   1269.55   1263.46   1130.14   1269.55   1263.46   1130.14   1269.55   1263.46   1130.14   1130.14   1269.55   1263.46   1130.14   1269.55   1263.46   1130.14   1269.55   1263.46	, ,	11935.80	-	-	0.013052	1479.74	2737.87	1258.13	1461.64	2563.99	1102 35	3.404.1	5 5103	7.5.
12576.82         0.001538         0.013623         0.012084         1504.15         2731.57         1227.41         1484.81           12907.21         0.001550         0.013171         0.011622         1516.55         2728.30         1211.75         1496.55           13244.33         0.001561         0.012733         0.011172         1529.09         2724.96         1195.87         1508.41           13588.29         0.001573         0.012308         0.010735         1541.76         2721.54         1179.78         1520.38           13939.20         0.001585         0.011896         0.010311         1554.57         2718.04         1163.46         1532.48           14297.16         0.001598         0.011496         0.009898         1567.54         2710.81         1146.92         1544.70           14662.29         0.001611         0.011496         0.009497         1580.67         2710.81         1130.14         1557.05           15034.68         0.001624         0.010731         0.09107         1593.96         2707.08         1113.11         1569.55         2	07	12253.07	-+	_	0.012561	1491.88	2734.76	1242.87	1473.17	2562.13	1088 06	34180	2 5010	7,000
1290721   0.001550   0.013171   0.011622   1516.55   2728.30   1211.75   1496.55   1496.55   13244.33   0.001561   0.012733   0.011172   1529.09   2724.96   1195.87   1508.41   13588.29   0.001573   0.010735   1541.76   2721.54   1179.78   1520.38   1539.20   0.001585   0.011896   0.010311   1554.57   2718.04   1163.46   1532.48   14652.29   0.001611   0.011108   0.009497   1580.67   2710.81   1130.14   1557.05   15034.68   0.010731   0.009107   1593.96   2707.08   1113.11   1569.55   1	87	12576.82	-		0.012084	1504.15	2731.57	1227.41	┝	2560.24	1075 43	2 4219	2.301.0	2.0530
13244.33   0.001561   0.012733   0.011172   1529.09   2724.96   1195.87   1508.41   13588.29   0.001573   0.012308   0.010735   1541.76   2721.54   1179.78   1520.38   1539.20   0.001585   0.011496   0.010311   1554.57   2718.04   1163.46   1532.48   14297.16   0.001598   0.001496   0.009898   1567.54   2714.46   1146.92   1544.70   1563.46   0.010731   0.009497   1580.67   2710.81   1130.14   1557.05   15034.68   0.010731   0.009107   1593.96   2707.08   1113.11   1569.55   1	<u>8</u>	1290721		_		1516.55	2728.30	1211 75	╁	00 00 00	7	9101	1.0031	2.0035
0.001573         0.012308         0.010735         1541.76         2721.54         1179.78         1520.38           0.001585         0.011896         0.010311         1554.57         2718.04         1163.46         1532.48           0.001598         0.011496         0.009898         1567.54         2714.46         1146.92         1544.70           0.001611         0.011108         0.009497         1580.67         2710.81         1130.14         1557.05           0.001624         0.010731         0.009107         1593.96         2707.08         1113.11         1569.55	332	-+	-		⊢	529.00	2724 06	1105.87	+	2238.29	1001.74	3.44.8	5.4684	2.0235
13939.20   0.001585   0.011896   0.010311   1554.57   2718.04   1163.46   1532.48     14297.16   0.001598   0.011496   0.000898   1567.54   2714.46   1146.92   1544.70     14662.29   0.001611   0.011108   0.009497   1580.67   2710.81   1130.14   1557.05     15034.68   0.001624   0.010731   0.009107   1593.96   2707.08   1113.11   1569.55	-		_	$\vdash$	⊢	┾	+-	82 921	+	+	1047.90	3.4571	5.4515	1.9944
14297.16         0.001598         0.011496         0.009898         1567.54         2714.46         1146.92         1544.70           14662.29         0.001611         0.011108         0.009497         1580.67         2710.81         1130.14         1557.05           15034.68         0.001624         0.010731         0.009107         1593.96         2707.08         1113.11         1569.55			├	₩	╆	22.1231	+	1163 66	+	+	1033.90	3.4685	5.4344	1.9659
14662 29         0.001611         0.011108         0.009497         1580.67         2710.81         1130.14         1557.05           15034 68         0.001624         0.010731         0.009107         1593.96         2707.08         1113.11         1569.55		┝┈		+	┿	1 2 6 9 9	╀	0+ 5011	+	$\dashv$	1019.74	3.4788	5.4173	1.9384
15034.68 0.001624 0.010731 0.009107 1593.96 2707.08 1113.11 1569.55		├	╄-	+-	+-	760 K7	+	+	+	+	1005.40	3.4879	5.4000	1.9121
100.08 1113.11 1569.55		├	┼	+-	+	70 70	+	+	+	+	990.89	3.4953	5.3825	1.8872
		4	4	4	-	2000	$\dashv$	-	┥	4	976.19	3.5009	5.3649	1.8641

-		1	a a p	-	-	T		Ŧ-		T	Τ	7	Т	T	T	T	
374	372	370	368	8	ž	362	360	358	356	354	352	350	₩	돐	Ĭ	C	-
22077.81	21572.82	21077.08	20590.46	20112.81	19644.00	19183.91	18732.41	18289.36	17854.64	17428.13	17009.71	16599.25	16196.63	15801.74	15414.47	15	i e
0.001881	0.001862	0.001843	0.001825	0.001807	0.001790	0.001773	0.001756	0.001740	0.001724	0.001709	0.001694	0.001679	0.001665	1591000	0.001637	103/kg	Y.
0.005993	0.006228	0.006470	0.006720	0.006977	0.007242	0.007514	0.007795	0.008084	0.008382	0.008689	0.009004	0.009330	0.009664	0.010009	0.010365	A.y.r.m	*
0.004111	0.004366	0.004627	0.004895	0.005170	0.005452	0.005741	0.006039	0.006344	0.006658	0.006980	0.007311	0.007650	0.008000	0.008359	0.008728	m3/kg	ž
1836.02	1818.36	1802.03	1785.50	1769.28	1753.35	1737.69	1722.30	1707.16	1692.26	1677.60	1663.15	1648.92	1634.90	1621.07	1607.42	EJ/kg	Ę.
2636.56	2641.57	2646.50	2651.35	2656.12	2660.81	2665.41	2669.94	2674.38	2678.75	2683.03	2687.24	2691 36	2695.41	2699.38	2703-26	F1/F	"ju"
800.54	822.71	844.48	865.85	886.84	907.45	927.72	947.64	967.22	986.48	1005.43	1024.08	1942 #4	1060.51	1078.31	1095.84	FULL	<b>"</b> "
1794.49	1778.69	1763.17	1747.93	1732.93	1718.19	1703.68	1689 40	1675.33	1661.47	1647.81	1634.34	1621.05	1607.93	1594.98	1582.19	FINE	£*
2504.26	2507.22	2510.13	2512.99	2515.79	2518.55	2521.26	2523.91	2526.52	2529.09	2531.60	2534.07	2536.50	2538.88	2541.21	2543.50	RAILT.	
709.77	724.53	746.95	765.06	782.86	800.36	817.57	13.4.51	851.19	867.61	883.79	899.73	915.45	930.94	946.23	16.196	EJ/kg	F
-19 7443	0.5970	1.8582	2.4610	2.8150	3.0409	3.1918	3.2954	3.3676	3.4179	3.4528	3.4764	3,4915	3.5002	3.5040	3.5040	KJ/ltg K	ĸ
SE90'S	5.0835	5.1033	5.1230	5.1425	5.1619	5.1811	5.2002	5.2191	5.2378	5.2565	5.2749	5.2932	5.3114	5.3294	5.3472	kJ/kg K	*
24.8077	4.4864	3 2451	2.6620	2.3276	2.1210	1.9893	1.9047	1.8515	1.8199	1.8036	1.7985	1.8017	1.8111	1.8254	1.8433	M/kg K	¥