STUDIES ON THE ACTIVE PRINCIPLES FROM ACONITUM FLAVUM HAND-MAZZ.

THE STRUCTURES OF FIVE NEW DITERPENOID ALKALOIDS

Zhi-gang Chen, Ai-na Lao, Hong-cheng Wang, and Shan-hai Hong* Shanghai Institute of Materia Medica, Chinese Academy of Sciences 319, Yue-yang Road, Shanghai, 200031, China

Abstract - Reinvestigation of Aconitum flavum Hand-Mazz resulted in the isolation of five new diterpencial alkaloids, 1.e., dehydronapelline (1), 12-acetyllucidusculine (2), 1-epi-napelline (3), 12-epi-napelline (4), and 1-demethylhypaconitine (9), along with napelline, lucidusculine, aconitine, 3-acetylaconitine, deoxyaconitine, flavaconitine, benzoylaconine, and neoline. The structures of these new compounds were determined based on spectral data and chemical transformations. The pharmacological tests showed that 12-acetyllucidusculine (2) has a strong effect of lowering of heart rate in Langendorff's guinea pig hearts.

In a previous paper we reported the isolation of aconitine (10) and 3-acetylaconitine (11) from Aconitum flavum Hand-Mazz. Pharmacological tests showed that 3-acetylaconitine (11) has strong analgesic and antiphlogistic effects. Now it is used as a drug for the treatment of periomethritis, rheumatic and rheumatoid arthrits, sciatica, lumbago and dorsalgia waist and joint sprain, etc. with non-narcotic addition after long duration of action. As the continuation of the search for pharmacological active components, we reinvestigated the constituents of the plant. From alcohol extract of the roots, we isolated five new diterpencial alkaloids, named dehydronapelline (1), 12-acetyllucidusculine (2), 1-epi-napelline (3), 12-epi-napelline (4), and 1-demethylhypaconitine (9), along with six known compounds, napelline (5), lucidusculine (6), deoxyaconitine (12), flavaconitine (13), benzoylaconine (14), and neoline (16), in addition to the previous reported aconitine (10) and 3-acetylaconitine (11). The pharmacological tests revealed that C20 diterpencial alkaloids, (1), (2), (5), and (6), all have effects of lowering of heart rate in Langendorff's gui-

- (2) R_1 =OH, R_2 = R_4 =H, R_3 =OCOCH₃, R_5 =COCH₃. 12-acetyllucidusculine
- (3) $R_1 = R_4 = R_5 = H$, $R_2 = R_3 = OH$. 1-epinapelline
- (4) R₁=R₄=OH, R₂=R₃=R₅=H. 12-epinapelline
- (5) R₁=R₂=OH, R₂=R₄=R₅=H.
- (6) R₁=R₃=OH, R₂=R₄=H, R₅=COCH₃.
- (7) R₁=OH, R₃, R₄=O, R₂=R₅=H.

- (9) R,=CH, R,=OH, R,=R4=H, R,=COCH,
- (10) R₁=CH₂CH₃, R₂=OCH₃, R₃=OH, R₄=H, R₅=COCH₃.
- (11) $R_1 = CH_2CH_3$, $R_2 = OCH_3$, $R_3 = OCOCH_5$, $R_4 = H$, $R_5 = COCH_5$.
- (12) R₁=CH₂CH₃, R₂=OCH₃, R₃=R₄=H, R₅=COCH₃.
- (13) R,=H, R,=OH, R,=H, R,=OH, R,=COCH3.
- (14) $R_4 = CH_2CH_2$, $R_2 = OCH_3$, $R_3 = OH$, $R_4 = R_5 = H$.
- (15) $R_4 = CH_3$, $R_2 = OCH_3$, $R_3 = R_4 = H$, $R_5 = COCH_3$.

nea pig hearts. Among them, 12-acetyllucidusculine (2) is the strongest one and has no effect on the amplitude of cardiac contraction.

Dehydronapelline (1), $C_{22}H_{31}NO_3$ (M⁺ 357.2274, calc. 357.2244), had mp 103.5-105°C, $[\alpha]_D^{16}$ +78.3° (C=0.48, EtoH). ¹H-nmr indicated the presence of an N-CH₂CH₃ (δ 1.00, 3H, t, J=7.1 Hz: 2.61, 2.71, each 1H, m), a tertiary methyl (δ 0.80, 3H, s), and two hydroxyls (δ 1.69, 1H, d, J=4.0 Hz; 1.57, 1H, d, J=7.6 Hz, exchangable with D₂0). The ir absorptions at 1660, 890 cm⁻¹ and the ¹H-nmr signal at δ 5.16 (2H, brd, J=1.5 Hz, C=CH₂) suggested there was an exomethylene moiety. The molecular formula together with the spectral data suggested that this compound was a C_{20} diterpenoid alkaloid⁵. Decoupling correlative signals at δ 1.14 (1H, dd, J=11.9, 4.3 Hz, C(14)-eH), 1.85 (1H, d, J=11.9 Hz, C(14)-aH), and 2.45 (1H, d, J=4.5 Hz, C(13)-H) indicated that this compound had napelline-type skeleton. Among the napelline-type compounds, the ring C exists in boat comformation because of chemical bond between C(7) and C(20). So the dihedral angle between C(13)-H and C(14)-aH or C(12)-5H is near 90°. There-

fore, C(13)-H and C(14)-2H appear to be characteristic of napelline-type compounds (see table I). The doublet of C(13)-H suggested that C(12)-AH was substituted, viz. there was a C(12)- $\angle OH$. When the ^{1}H -nmr signal at $^{5}4.21$ (1H, dt, J=7.6, 2.3 Hz) was irradiated, both signals at $\sqrt{5}$.16 (2H, brd, J=1.5 Hz, C=CH₂) and 1.57 (1H, d, J=7.6 Hz, OH) were changed to siglet, suggesting the presence of C(15)-OH. The β -configuration of C(15)-OH (δ 77.5) was established by observing the chemical shift of C(15)in napelline (5) $(5.77.8, \text{ with } \beta-OH)^3$ and veatchine (8) $(582.8, \text{ with } \alpha-OH)^6$. The mass spectrum exhibited the peaks at m/z 301 ($M^+-C_3H_40$, 46%), 286 ($M^+-C_3H_40-CH_3$, 29%). The loss of molecule of acrolein in the ms⁵, the ir strong absorption at 1090 cm⁻¹, and the 1H-nmr signals at \$3.68 (1H, s, C(19)-H) and 4.03 (1H, d, J=5.3 Hz, C(1)-\$H) indicated the presence of C(1)=0-C(19) ether linkage in the new base 4. Comparing the 13 C-nmr data with those of napelline (5) (see table II), the appearance of a new CH signal at \$93.1, the disappearance of a CH, signal at \$57.7, the upfield shift of C(1), the C(4) occurring downfield as the result of β -effect and the C(3), C(5), and C(18) occurring upfield as the result of Y-effect provided the evidences for the presence of C(1)-O-C(19) ether linkage. Based on these spectral analyses, this compound was assigned to be dehydronapelline (1). The oxidation of napelline with potassium permanganate afforded dehydronapelline which was identical with the natural product. The reduction of this new compound with sodium borohyride produced a single product which was identical with napelline8. Therefore, the structure (1) was established.

12-Acetyllucidusculine (2), $C_{26}H_{37}NO_{5}$ (M⁺ 443.2637, calc. 443.2603), mp 132-134°C, $[\omega]_{D}^{26}$ -94.1° (C=0.46, CHCl₃), showed the character of napelline-type compound (see table I). The infrared spectrum exhibited absorptions at 3430 (hydroxyl), 1738, 1232, 1030 (ester), 1660 and 887 cm⁻¹ (exomethylene). The ¹H-nmr spectrum was very similar to that of lucidusculine (6) except the appearance of an acetoxy (\overline{b} 2.01, 3H, s) and 0.94 ppm downfield shift of C(12)-3H. Thus, this compound was assigned to be 12-acetyllucidusculine (2). Partial acetylation of lucidusculine (6) with acetic acid under the presence of trifluoroacetic acid at 80°C for 5 h. afforded 12-acetyllucidusculine (2)³ (see fig. I). This fact confirmed the structure (2).

1-Epi-napelline (3) had mp 87-89°C, $[\alpha]_D^{22}$ -11.7°(C=1.19, CH₃OH) and gave an analysis corresponding to $C_{22}H_{33}NO_3$ (M⁺ 359.2466, calc. 359.2460) by high resolution ms. The infrared spectrum showed absorptions at 3400 (hydroxyl), 1660 and 890 cm⁻¹ (exomethylene). The mass spectrum of this base was in accord with that of napelline (5). Every carbon chemical shift was very similar to corresponding value of napelline (5)

									-2			• •	muripectrum
					4. rs	2.15	€H3		2.41	F. E1	F. C!	5.21	¢H2
				ċμ _Σ ιΣ.		172.4	0-0		** 8†	25*1	1.52	9.16	M-CH2
			2	исн ⁵ 49	42,6	45.7	K-cH ²		0.99	0.73	₹.79	5,68	SO
				S.Te	0'95	5.68	18		1.€6	0.65	6'85	7.12	61
				€.08	1,08	9.66	81		0.61	8,65	7.92	7.92	81
				9.59	1.58	1.1 9	Lı		9°601	≱.80f	5.511	\$.TO?	Lı
				6.58	1.06	r. 68	91		T.Te!	0.031	8, 1 21	B.03 r	91
				45.7	8.87	T. 85	٩١		₹.FT	4.87	1.87	8.TT	S١
				6.27	6.87	1.97	Þl		1.05	₹.8₹	8.8	4.B€	≯ı
				£***	1.47	6.51	£١		6.64	9.08	7.24	6.64	٤ı
				8.6\$	₹.8₹	36,2	sr.		4.27	T-9T	8.17	5.27	15
1.62	0*69	1.66	181	9'67	6.63	46.2	11		0. TS	F.95	9,55	7°6 Z	11
€.95	6*09	þ°19	٠9١	7.04	1.12	≯. 6€	01		6.1€	0.48	8.52	6.5 6	٥ı
8,72	6.78	0.88	.9	₹.84	8. 75	42.2	6		6-€₽	1.8₹	9.6€	3.8₹	6
	5*95		, 1	E. AT	6.16	L' 16	Θ		7.05	0.18	9.16	₹,0₹	9
	159.6	158.5	•	5.52	5*77	₹.€₽	L		7.84	45.8	1.24	0.24	L
	9*82 t	9*92 (9	;	65.3	1,58	63.5	9		24.0	\$4.1	24.3	9.62	9
	133.2	₹.₹₹! I	>	6.44	48.2	5.54	5		35.5	1.64	9"15	4.64	5
	9.851	9*52 6		S.80	₹.6₹	1.85	Þ		8.75	٤٠٤٤	Z•5€	7.16	7
	159.6	4*621 8		59-9	6.4₹	56.9	٤		4.45	32.4	55.4	4.55	٤
	156.9	6.6≤r i	. ******	59.5	\$.65	5. 65	2		6.62	5,1€	3.15	6.15	2
	1,681	0.991	o-5	72.3	0,28	6-11	ι		6.78	0.11	5 *69	2.0T	ı
			Carbon	91	S١	6	Свтооп	<u> </u>	(o _l	٤		9	подтяО
9 l ([£] TD)		ZHM 001)	r Data	1 - goweth 1 3 C - nm 1 y c weth	41 .II			ന്ന ² യ)	HKz, Ō,	OGI) B3	tad van-	-⊃ _{€1}	
	ಕಿಜಿಡಿರ	eurrruo: ZHM OOL)	r Data	eken in r 1 ³ C-nm 1 -dometh	t eas t			(ao [£] ao	1108–921 182, 6, 1882 1888	oltayq ni OO() ga	tad van-	-⊃ _{€1}	a) Spectr
	ಕಿಜಿಡಿರ	eurrruo: ZHM OOL)	r Data	sken in r e ^{i 3} C-nm	, 2.09, t eaw t for Th			(ao [£] ao	1108–921 182, 6, 1882 1888	OGI) B3	tad van-	-⊃ _{€1}	a) Spectr
([£] tə	рвае 2* 2* cm	eurriuo; zhn ool) ·*p-t	nethen stad m	s sken in r sken in r 1 ⁵ C-nm 1-dometh	2.09, 2.09, 1 was t				e MRz, J. Beses	tryq m	eneken i	ye ige	(12)-0000H ₃ (12)-0000H ₃ (12)-0000H ₃
H8':ι=	r '2' cn	2HZ : : =	t .pdA	e sen in second	10.5 10.5 20.09, 1 ear t	mu toed	is (q	ZHf.Sf≖L (pEA	e sheeds theds to all the	.t.pEA .ti.s .trry ni .col) ga	zH3.1	9d• 1=1	(12)-0000H ₃ (15)-0000H ₃ (15)-0000H ₃ (1 -11 eldel
, IT. S.	. 3, 50. 3	777.5 2HS.51= 7,6-1 2HN 001)	t, pdA t, pdA constrain constrain train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train ta train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train ta ti	S.43, see the	,02.5 L ,pAA ,10.5 ,20.9 ,20.5 t eas t	s (H	is (q 11. *89*£	affr.Si=t .pfA	241.11= 2H1.11= e e -26-enti -76.2HM	, ds.s. L, pEA , tf.s , tf.s oof) as quord s	sH3.1	2.32, 2 2, 32, 2 2, 32, 2	A (12)-central (12)-central (12)-central (12)-central (12)-central (12)-central (13)-central (13
277; 277; 11.8H: 11.9H:	5.32, v. 3., v. v. 5., cu	2HZ : [1= 'LC.S **P-T	S.15, 2.09, J. Patano	erd 2.43, e e e e e min naken i of neadeth	,5.25, co.s.	s 'j	12,68,11 11,68,5	814, 515 173.5, 21.5 2H1.51=L, pEA	2,60, 2,11:11: e e e 5-9-011 7,5:47:70:00:00:00:00:00:00:00:00:00:00:00:00	,25.26 ,26.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	1,6Hz	2.32, 2 8q, J=1 um was	A (19)-2H (15)-0000(H ₃) (15)-0000(H ₃) Spectr (1) Table II. T
277; 277; 11.8H: 11.9H:	. 3, 50. 3	2HZ : [1= 'LC.S **P-T	t, pdA t, pdA constrain constrain train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train ta train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train train ta ti	erd 2.43, e e e e e min naken i of neadeth	,02.5 L ,pdA 2.09, 2.09, 2 eas t	e (p	a , a ≥ . a	affr.Si=t .pfA	2,60, 2,41.11: 2,60, 8 2,60, 8 2,60, 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4.92, 4.52, 4.02, 4.1, 4.1, 5.1, 6.1, 7.1, 7.1, 7.1, 7.1, 7.1, 7.1, 7.1, 7	SH3.1	5.15, E 5.32, 2 5.32, 2 5.32, 1=1 0m ves	A (17)-ZH (19)-ZH (12)-0000EH ₃ (15)-0000EH ₃ (15)-000EH ₃ (1
bra 2.71, 2.71, 11.8H:	.51.2 .55.5 .2.50, T Tag, T	erd 7.7. 2.HS.:!!= ABS::II= ABS::III= ABS::IIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIIIII ABS::IIIIIIIIII ABS::IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	5.12, 2.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09, 5.09,	bra 2.45, asken in i bra 1.5c.nm	, 76.4 , 52.5 , 05.5 , 10.5 , 10.5 , 10.5 , 20.5 , 20.5 , 4 eav t	rd, e ,ä e ,ti	2 '9'7=L 3 '91'5 21 8 '1=L 11 '89'E	5.49, brs 5.74, 52.5 16.5, 20.5	2) 40 - 2 - 60 - 5 - 60 - 5 - 60 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	1 5.2=1 1,92,4 1,51,2 1,05,4 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,5 1,11,	2H E.9		17)-ZH (19)-ZH (12)-OGOCH ₃ (15)-OGOCH ₃ (15)-OGOCH ₃
erd	4.21, 5 5.70, 5 5.70, 5 5.70, 7	erd 7.7. 2.HS.:!!= ABS::II= ABS::III= ABS::IIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIII= ABS::IIIIIII ABS::IIIIIIIIII ABS::IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	4.15, 5.12, 5.09, 5.09, 6.09, 5.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00,	bra bra c. 13C-nm c. 13C-nm c. 13C-nm c. 13C-nm	4.97, 4.97, 5.25, 5.09, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5, 1.0.5,	rd, e ,ä e ,ti	a , a ≥ . a	814, 515 173.5, 21.5 2H1.51=L, pEA	2, 60, 11.14z e e a b c c c c c c c c c c c c c c c c c c	,52.5 ,52.4 ,29.4 ,65.5 ,65.5 ,11.5 ,11.5 ,11.5 ,001) ga	19 (Hz) 42	2, 20, 4 2, 20, 2 3, 15, 2 2, 15, 2 1 2, 15, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10 10 10 10 10 10 10 10 10 10 10 10 1	1 (17)-RH (17)-RH (17)-CH (17)
, bra , bra , bra , sra , sra	. 18.9=1 4.81, 5.12, 5.5, 5, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5.50, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	7H O.T ard	4.15, 5.12, 5.09, 5.09, 6.09, 5.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.09, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00, 6.00,	ETG ETG ETG ETG ETG ETG ETG ETG	7.49, 4.97, 5.23, 5.23, 7.03, 7.03, 7.09, 7.09, 7.09,	.5 Hz .br e .k	4,27,4 5,6,5,2 6,6,7=1, 7,68,7 11,68,5	5.49, brs 5.74, 52.5 16.5, 20.5	2,6 4,2 Mg 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60, 2,60	5.5.5 5.5.5 5.5.4 5.5.5 5.7.5 5.7.5 6.7.5 6.7.5 7.11.5 7.11.5 7.11.5	2H 7.63.5 2H 6.9.5 5H3.1 5H3.1 5H3.1 5H3.1 5H3.1 5H3.1	-9.6, 64 -9.6, 64 -0.20, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	T Lable II. T a) Spectr (15)-0000H ₃ (17)-2H b) L2-(17) A 12-(2H) A 13-(2H) A 14-(2H) A 15-(2H) A 16-(2H) A A 17-(2H) A A A A A A A A A A A A A
. 4.6 H; bra bra 2.71, 2.71, 11.8H;	4.78, 4.21, 5.72, 5.72, 5.72, 5.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72, 7.72,	xH 0.77 and continued to the continued t	3-52, 4-15, 5-15, 5-15, 5-15, 5-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15, 7-15,	sh erd erd erd s.45. s.45. e e e e e e e min maken in in maken	4.59.7 5.49.4 5.23.5 5.23.5 60.5 1.04.7 7.09.7 7.09.4 7.09.7	sh Ç. .br e .t	3.65, a 4.21, d 3.66, b 5.16, b 3.68, 11	4.68, bra 5.49, bra 5.54, bra 2.19, 2.51, AHI.SI=L,pAA	24, 6, 6, 8, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,	5.9-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.5-1, 5.	ZH C.;	3.55, day	Table II. Table
6.7 H 6.4 H 6.4 H 6.7 H 6.7 H 6.1 H 6.1 H 6.1 H	1.68.6, 4.18, 4.18, 5, CD Asse	2H €.8 2H 0.7 2H 0.7 2H2.1 2HS.11 2HS.11 3HS.11	2-55, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9-5, 1-9	th th th th th th th th th th	4.59.7 4.64.7 4.64.7 4.64.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7 4.97.7	SH E.	2.65, m 4.21, d 1=1.5, 8 3.68, 11 3.68, 11	2H7.6,6,5Hz exd, 68.4 exd, 68.5 exd, 54.5 exd, 57.5 itz.5, 21.5 xHf.Siml, pfA	6.8 Hz dd, t, t, t, m 2.60, t,	5.64.5 5.64.6 5.6.6 5.75.7 6.92.8 6.13.8 7.13.8 7.13.8 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.13.9 7.1	zH 7.6 zH 7.6	6.65, 63, 63, 63, 63, 63, 63, 63, 63, 63, 63	Tuple II: 1 a) Shecki (12)-0000H2 (13)-0000H2 (13)-2H (14)-2H (15)-H (15)-H (15)-H (15)-H
6.7 H 6.4	3.87, 1.6.6, 1.6.6, 4.78, 5.72, 5.72, 2.70, 7.74, 7.75, CD	2H C.3 2H O.7 2H O.7 2HS.fl 2HS.fl 3HS.fl 3HS.fl 3HS.fl 3HS.fl 3HS.fl 3HS.fl 3HS.fl	3.69, 3.69, 3.69, 3.69, 3.69, 3.69, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62, 3.62,	## ## ## ## ## ## ## ## ## ## ## ## ##	7.89.7 4.59.4 4.59.7 4.97.5 4.97.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4.0.5 4	zH ₹. .bn z .H	4.05, d 4.05, d 4.05, 2 5.65, b 7.65, 5 7.65, 5 7.65, 6 7.65, 7 7.65, 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7.97, dd. 2.69, bra 2.69, bra 5.69, bra 5.64, bra 5.54, bra 7.51, S.51,	6.8 Hz dd, dd, dd, t, dd dz, dz	5.95, 5.64, 5.64, 5.64, 5.25, 5.73, 5.13, 2.25, 2.26, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17, 1.17,	ZH 2.3 ZH 7.3 ZH 7.3 ZH 7.3 ZH 7.3 ZH 7.3	5.19.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6 6.63.6	T H-(1) T H-(21) T H-(21
erd (3,52, 3,87, 1,68, 4,78, 4,78, 5,72, 5,72, 5,72, 5,70, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74, 7,74,	2H & 6 2H & 6 2H & 6 2H & 7 2HS f!= 2HS f!= 2HS 6 2HS	7.69.7 7.89.7 7.99.7 7.50.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7 7.75.7	Fig. 1. Sept. 1. Sept		er 2H ₹, ,br ,br e ,H	2.80, b 4.05, d 4.05, d 4.05, d 4.05, d 5.65, a 5.65, a 4.05, d 5.65, a 5.65, a 6.05, d 6.05, d 7.05,	5.47, 6.48, 6.5Hz 2H7.6, 4.01=1, 6.6Hz 2H7.6, 4.69, bra 5.49, bra 5.49, bra 7.75, 2, 61.5 3H7.51=1, pfA	erd 6.6 Hz 6.6 Hz 6.6 Kz t, t, tz 2.60, z, 5.60, e 1.11 Hz e	5.95, 5.95, 5.64, 5.64, 5.52, 5.52, 6.13, 2.25, 2.25, 2.26, 2.13, 2.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13,	ZH 2** ZH 2** ZH 2** ZH 2** ** ** ** ** ** ** ** ** **	1.6.7 3.55.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3.6.7 3	Table II. T a) Spectr (15)-0000H ₃ (17)-2H (17)-2H (17)-2H (18)-H (18)-H (19)-H (19)-H
H 7.5 (4) 6 24 (4) 6 4 (4) 6 4 (4) 6 4 (4) 7 (4) 8 7 (4) 8 7 (4) 8 7 (4) 8 7 (4) 9 7 (4) 9 7 (4) 9 7 (4) 9 7 (4)	.8.8.t .52.₹ .78.£ .6.8.t .6.1.4 .8.9.t .75.4 .75.5 .75.5 .75.5 .75.7 .75.7 .75.7	zH crd	7.45.2 7.89.3 7.89.3 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.89.5 7.	Hx htt. tt. tt. Hx htx bra bra bra bra bra contains e. 6.5 e. 6.5	4.75.5 4.69.5 4.75.6 4.62.4 4.75.6 4.75.6 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4 4.76.4	r., 5 Hz rd, s, 5 Hz	28.6.4.5 HE	2H 9.5-L erd , IT. E 5D, 19C, dd, LOS, b.Ol-L erd , 60.A erd	25 646 648 648 646 646 647 647 647 647 647 647	5.95, 5.95, 5.95, 5.95, 5.64, 5.55, 5.55, 6.13, 2.25, 2.25, 2.13, 2.13, 2.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13, 3.13,	2H 6, 4 4D 6, 4 5H 7, 6 4B	7.53. 5.54 1.44 1.44 1.44 1.44 1.44 1.44 1.4	Table II. Table
4 H 7.5 (4) 6 24 (4) 6 34 (4) 6 4 (4) 7 6 (4) 7 7 7 (4) 8 7 7 (4) 8 7 7 (7) 8 7 7 (7) 8 7 7 (7) 8 7 7 (7) 8 7 7 (7) 8 7 7 (7) 8 7 7 (7) 8 7 7 (7) 8 7 7 7 (7) 8 7 7 7 (7) 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	60.5 6.8.8.1 5.7.5 7.8.5 6.7.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6.1.8.1 6	2H 2H 2h 2ct	7.25.7 7.65.7 7.69.7 7.69.7 7.69.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7 7.50.7	Ah. http://dispersion.org/ http://dispersion	,74.5 4.75.5 4.68.6 4.77.6 4.68.4 4.77.6 4.68.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4 4.79.4	r.s (2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	2.45, 4 2.45, 4 2.65, 5 4.05, 6 4.05, 6 2.65, 5 2.65, 5 2.65, 5 2.65, 5 2.65, 5 2.65, 5 2.65, 5 2.65, 5 3.68, 11	75.55, 4, 21-5.9 Hz 7.17, 5ra 7.17, 6ra 7.97, 6d, 1-10.4, 6.5Hz 6.69, 5ra 6.49, 5ra 5.49, 5ra 5.49, 5ra 7.51, 5.51, 2.11, 5.1-1, pfA	4, 56, 66, 66, 66, 66, 18, 18, 18, 19, 19, 19, 19, 19, 19, 19, 19	2.48, 1.44, 0.5 (2.48, 1.44, 0.5) (2.48, 1.44, 0.5) (2.48, 1.44, 0.5) (2.48, 1.44, 0.5) (2.48, 1.44, 0.5) (2.48, 1.44, 0.5) (3.48, 1.44, 0.5) (3.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0.5) (4.48, 1.44, 0	2H 2.5 2H	mm Age mm	T - 1 a ptoe I I I E ptoe I I I I E ptoe I I I E ptoe I I I I E ptoe I I I I I E ptoe I I I I I I I E ptoe I I I I I I I I I I I I I I I I I I I
## 18 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2.51-t, 6.06.5 6.8.9-t, 5.75.7 7.8.6 7.8.6 7.9.6 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9.7 7.9	2H 2h 2ct		## 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	2.5.47, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6, 47.5.6	e	24 5, 4 24 5, 4 24 5, 4 25 5, 5 4, 6, 5 4, 6, 5 5, 6, 5 4, 6, 5 5, 6, 6 6, 6, 6 7, 6, 6 7, 6, 7 8, 6, 6 1, 7, 7, 8 1, 7, 8 1, 8	2H 6.94. 55.63, 48.2 519.4 dd, 519.4 dd, 519.6 dd, 66.6 bra 66.6 bra 64.6 bra 7.49, bra 7.40, bra 7.40, bra 7.40, bra	#2 dd, dd, 6.8 Hz dd, dd, t, t, m m m 2.60, m m m m m m m m m m m m m	2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48, 2.48,	2H 7.5, 4bl 62.6, 4bl 62.6	mm Age """ 12 12 13 15 15 15 15 15 15 15	T - H-(21): 1 - H
4, 6, 4, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	2.51-et 2.60.5 2.80.et 3.87.5 3.87.5 3.80.et 4.18.6 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.18.7 4.1	, b, c, d, c, d,	.08; r .08; s .08; s .09; s .00; s .0	4, 4d, 4d, 4d, 4d, 4d, 4d, 4d, 4d, 4d, 4	88.51-L 474.5 474.5 476.7 476.7 476.7 476.7 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4 476.4	e., '2 h2. '4. '2 h2. '4. '2 h2. '4. '2 h2. '4. '4. '4. '4. '4. '4. '4. '4. '4. '4	18 (90) 4 (90) 4 (90) 5 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90) 6 (90	46.9 Hz 7.53, d, 1-6.9 Hz 7.53, d, 1-7.9 Hz 7.77, dd, 1-7.0, de, 1	4, 46, 56, 66,8 Hz 66,8 Hz 66,6 Hz 12, 12, 13, 14, 13, 14, 15, 16, 16, 16, 16, 16, 16, 16, 16, 16, 16	, 20.5 ,	2H 6.5, 2H 6.5	mm Age mm	Table II. Table III. Table II
4, 4, 04, 04, 04, 04, 04, 04, 04, 04, 04	1.51=1. (.a7.; (.a7.; (.a8.) (2H0,4,040 2H 2H 2H 2H 2h 2h 3h	0.51=t, 696.t 0.51=t, 686.t 7.5=t, 6.2=t, 6.2=t	4, 5.88x d, bd. 2.45, bd. 2.45, bd. 2.45, bd. 2.45, bd. 2.45, bd. 2.45, cd.	1,98,1 1,98,1 1,78,2 1,77,5 1,77,5 1,78,7 1,78,7 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,03,5 1,	z z z z z z z z z z z z z z z z z z z	1.05, d 1.05,	24.0.4, 4.0.4c, 2.5c, 4.0.4c, 4.0.4c, 2.5c, 4.0.4c, 5.5c, 2.5c, 2.	4.5Hz, 4.5Hz 4.5Hz 4.5Hz 4.5Hz 4.6Hz 4.6Hz 4.6Hz 4.6Hz 4.7Hz 4.1Hz 4.7Hz	2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05, 2.05,	ZHS.4. ZH	mm Age """	T Prode II I apped II I I apped II I I apped II I I apped II I I I I I I I I I I I I I I I I I
, b, c, b, c, b, c, b, c, b, c, c, b, c, c, b, c, c, b, c, c, c, b, c,	1,09, f 1,51=1,76, f 1,51=1,76, f 1,61,61,61,61,61,61,61,61,61,61,61,61,61	2H0.4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4	.000.1 .000.1 .000.1 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .0000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .000	28.5. 4. 5.88 a. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.		d, 4.3Hz rd, 7.7 Hz rd, 7.7 Hz rd, 7.1 Hz	1,14, d 1,14,	24 0.4, 0.45, 0.46, 0.45, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40	247.4. 74. 347. 4. 347. 4. 347. 4. 347. 4. 347. 4. 347. 4. 347. 4. 347. 4. 347. 4. 347. 4. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 5. 347. 347. 347. 347. 347. 347. 347. 347	1.18, 2.02, 2.02, 1.48, 2.03, 2.04, 3.51, 3.51, 3.51, 3.51, 5.52, 5.52, 5.52, 5.53, 5.64, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73,	2HS.4, 2H	mm Age """ 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120	T He-(+t); He-(+t); He-(+t); He-(+t);
2H (A)	7.7=1, (90, f) (1, 7=1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	zHO.4, (, , , , , , , , , , , , , , , , , ,	1,7-1, 1,00,1 1,96,1 0,21=1, 2,85,2 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,1 1,65,	## dd, 1, 5.8# 4, 5.8# ## dd, ## d	8.3=4, 1,17, 1,17, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18, 1,18,	4,3Hz 4,3Hz 6, 7, 7, 8, 10, 10, 10, 10, 10, 10, 10,	24 6.0 ms. 1.14, d. 1	2H S.Y.L 2H S.A.L 2h O.A. 40.D 40.D 2h O.A. 40.D 2h O.A. 2h	24.742 44.742 44.742 44.742 44.742 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 44.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643 46.643	1-6.6 F 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7 1-1.7	2HS.4, 4bi 2H 7.4, 4bi 2H 7.4	mm wee 13C-13C-13C-13C-13C-13C-13C-13C-13C-13C-	T : I atex I : I : I : I : I : I : I : I : I : I
2H 7.6 (2H H) (4H) (4H) (4H) (4H) (4H) (4H) (4H)	1,09, f 1,51=1,76, f 1,51=1,76, f 1,61,61,61,61,61,61,61,61,61,61,61,61,61	## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*) ## (*)	.000.1 .000.1 .000.1 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .0000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .0000.2 .000	4, 3.84z 46, 46, 46, 46, 46, 46, 46, 46, 46, 46,		0000 tmm	1,14, d 1,14,	24 0.4, 0.45, 0.46, 0.45, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40, 0.40	4, 54.5 Mz 4, 4, 5 Mz 4, 4, 5 Mz 4, 6, 6 Mz 4, 6, 6 Mz 4, 6, 6 Mz 4, 6, 6 Mz 5, 60, 6 Mz 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	1.18, 2.02, 2.02, 1.48, 2.03, 2.04, 3.51, 3.51, 3.51, 3.51, 5.52, 5.52, 5.52, 5.53, 5.64, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73, 5.73,	2H2.44 2H	mm Age """ 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120	T : StdaT

except C(1) (see table II). The 6.5 ppm downfield shift of C(1) suggested that the configuration of C(1)-OH was different from that of napelline (5), i.e., a β -orientation. Hence, this compound was deduced to be 1-epi-napelline (3). By oxidation with chromic anhydride 12-acetyllucidusculine (2) yielded 1-keto-12-acetyllucidusculine (17) (see fig. I) which, upon reduction with sodium borohydride, produced two products, 1-epi-12-acetyllucidusculine (18) and 12-acetyllucidusculine (2). The hydrolysis of the former one (18) afforded 1-epi-napelline (3) which was identical with the natural product and therefore, the structure (3) was established. 12-Epi-napelline (4), $C_{22}H_{33}NO_3$ (M⁺ 359.2470, calc. 359.2460), mp 72-73.5°C, $[\alpha]_D^{21}$ -40.2°(C=1.03, CHCl3), showed the character of napelline-type alkaloid (see table I). The double doublet of C(13)-H implied the presence of C(12)- \propto H. Irradiation at δ 4.18 (1H, dd, J=8.8, 4.8 Hz) collapsed the signal of C(13)-H to doublet. This fact indicated that \$\darksymbol{d}_4.18 (1H, dd, J=8.8, 4.8 Hz) should be the signal of C(12)-4H and the C(12)-8H must be substituted by a hydroxyl group. The mass spectrum of this compound was in consistent with that of napelline (5). Comparison of the 13c-nmr data with those of napelline (see table II) revealed that all of carbon chemical shifts were similar except those of ring C whose difference was respondent to the configurational change of the hydroxyl group at C(12). Therefore, 12-epi-napelline (4) was deduced to this new base. By reduction with lithium aluminium hydride, songorine (7) afforded two products, napelline (5) and 12-epi-napelline (4). The latter one was identical with the natural product, which confirmed the structure (4). 1-Demethylhypaconitine (9), $C_{32}H_{43}NO_{10}$ (M⁺ 601.2839, calc. 601.2793), had mp 180-182°C, $[\alpha]_{\rm D}^{26}$ +19.9°(C=0.38, CHCl₃). The infrared spectrum showed absorptions at 3500

(hydroxyl), 1725, 1290, 1150 (ester), 1605, 1589, 1490, and 713 cm⁻¹ (aromatic ring). The 1H-nmr spectrum in deuteriochloroform exhibited signals at \$1.39 (3H, s, C(8)- $OCOCH_{3}$), 2.38 (3H, s, N-CH₃), 3.15, 3.29, 3.75 (each 3H, s, OCH₃), 7.44-8.02 (5H, m, aromatic protons), 4.87 (1H, d, J=4.9 Hz, C(14)-βH), 3.18, 3.53 (each 1H, ABq, J=8.1 Hz, C(18)-2H), 3.97 (1H, d, J=6.4 Hz, C(6)- β H), 3.66 (1H, m, C(1)- β H), 3.40 (1H, d, J=5.2~Hz, $C(16)\rightarrow xH$), 4.47 (1H, dd, J=5.4, 2.6 Hz, $C(15)\rightarrow pH$), and 4.40 (1H, d, J=2.6Hz. C(15)-OH). The 13C-nmr spectrum of 1-demethylhypaconitine showed twenty-eight signals for thirty-two carbon atoms in the molecule. The pattern of carbon chemical shifts was similar to that of hypaconitine (15) except ring A (see table III). The appearance of a new CH signal at \$71.9, disappearance of C(1) signal at \$85.0, downfield shift of C(2) and upfield shifts of C(3), C(5) suggested that a secondary hydroxyl instead of a methoxy group must be present at C(1). The general carbon chemical shift for C(1) with an α -OH in aconitine-type alkaloids is $\sqrt{72.0-73.0}$ except where a C(10)-OH or a C(2)-C(3) double bond is present 10. The value for C(1) in delphirine (1-epi-neoline) with an β -OH is 69.0¹⁰. Since the shift for C(1) in this compound is 71.9, the C(1)-OH is assigned an &-orientation. Therefore, the structure (9) was assigned to 1-demethylhypaconitine.

REFERENCES

- 1. X.R.Chang and H.C.Wang, Acta Pharmaceutica Sinica, 1981, 16, 474.
- 2. a, X.C. Tang and J. Feng, Acta Pharmacologica Sinica, 1981, 2, 82.
 - b, X.C.Tang, Z.G.Lia, W.Car, N.Chen, and L.Shen, ibid., 1984, 5, 85.
 - c, Y.Wang and X.C.Tang, ibid., 1985, 6, 221.
 - d, X.C.Tang, X.J.Liu, J.Feng, M.Y.Zhu, and A.L.Li, ibid., 1986, 7, 413.
- 3. H.Takayama, T.Tokita, M.Ito, S.Sakai, F.Kurosaki, and T.Okamoto, Yakugaku Zasshi, 1982, 102, 245.
- 4. K. Wada, H. Bando, and T. Amiya, Heterocycles, 1985, 23, 2473.
- 5. S.W.Pelletier and N.V.Mody, "The Alkaloids", ed by R.H.F.Manske and R.G.A.Rodorigo, Academic Press, New York, N.Y. (1981), Vol. XVIII, Chap. 2, p. 99.
- 6. S.W.Pelletier, Z.Djarmati, and N.V.Mody, Tetrahedron Lett., 1976, 1749.
- 7. 0.Achmatowicz, T.Tsuda, and L.Marion, Can. J. Chem., 1965, 43, 2336.
- 8. S.W.Pelletier, N.V.Mody, A.P.Venkov, and S.B.Jones, Heterocycles, 1979, 12, 779.
- 9. S.W.Pelletier, N.V.Mody, B.S.Joshi, and L.C.Schramm, "Alkaloids", ed by S.W.Pelletier, John Wiley & Sons, Inc. New York, N.Y. (1984), Vol. II, Chap. 5, p. 205.
- 10. S.W.Pelletier and Z.Djarmati, J. Amer. Chem. Soc., 1976, 98, 2626.

Received, 12th February, 1987