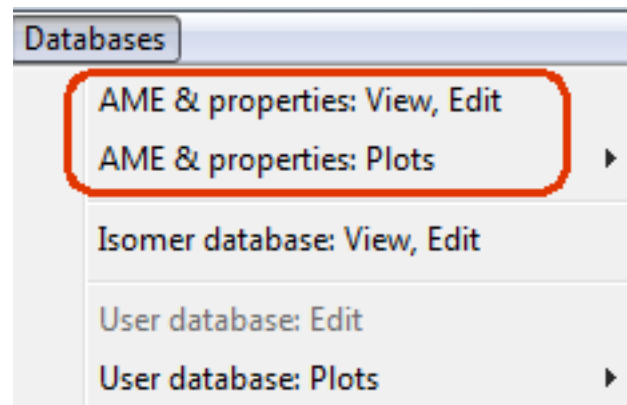


- Half-life database: new features
- New Database plots (P_x , D_x , S_t , S_{3He} , S_d)
- New 1D-Plot feature



Databases

DataBase: 0 - AME2012 (database)

A: 270, Element: Hs, Z: 108, N: 162

Alpha decay

Database Index: 108162

T 1/2: 30# s, private

Value: ys, zs, as, fs

Mass Excess: 125.0900

Binding Energy: 1969.6500

Beta- decay energy: -5.6240

Beta+ decay energy: 0.8630

S 2n: 13.8840

S 2p: 6.2900

Q alpha: 9.0462

S 1n: 7.5710

S 1p: 3.6810

Put "*" into a cell if value is: stable, unstable, unknown

Half-life (sec): Experimental (database)

Calculation: beta decay (1.74e+03), alpha decay (1.68e+02), proton emission

Help

- Private string
- New time scale
- Stable isotopes : Abundance

Databases

DataBase: 0 - AME2012 (database)

A: 48, Element: Ca, Z: 20, N: 28

Stable

Database Index: 20028

Abundance,%: 0.187, stable

lise2013.dbf based on NUBASE2012 & AME2012

“T1_2 field” in the case of “private” mode should start from char “*”

1	INDEX	A	EL	Z	T1_2	N14	D_T12	D_BE	D
3266	108166	274	Hs	108	*500# ms	private	*	0.5920	0
3267	108167	275	Hs	108	290	ms	150	0.5870	0
3268	108168	276	Hs	108	*100# ms	private	*	0.7990	0
3269	108169	277	Hs	108	11	ms	9	0.5410	0
3270	109156	265	Mt	109	*2# ms	private	*	0.4510	*
3271	109157	266	Mt	109	1.2	ms	0.4	0.3070	*
3272	109158	267	Mt	109	*10# ms	private	*	0.5030	0
3273	109159	268	Mt	109	27	ms	6	0.2330	0
3274	109160	269	Mt	109	*100# ms	private	*	0.4630	0
3275	109161	270	Mt	109	6.3	ms	1.5	0.1700	0
3276	109162	271	Mt	109	*400# ms	private	*	0.3300	0
3277	109163	272	Mt	109	*400# ms	private	*	0.4850	0
3278	109164	273	Mt	109	*800# ms	private	*	0.4800	0
3279	109165	274	Mt	109	850	ms	540	0.3540	0
3280	109166	275	Mt	109	40	ms	3	0.4680	0
3281	109167	276	Mt	109	730	ms	160	0.5520	0
3282	109168	277	Mt	109	*10# s	private	*	0.7670	0
3283	109169	278	Mt	109	29	s	23	0.6340	0
3284	109170	279	Mt	109	*30# s	private	*	0.6670	0
3285	110157	267	Ds	110	10	us	8	0.1360	*



Databases

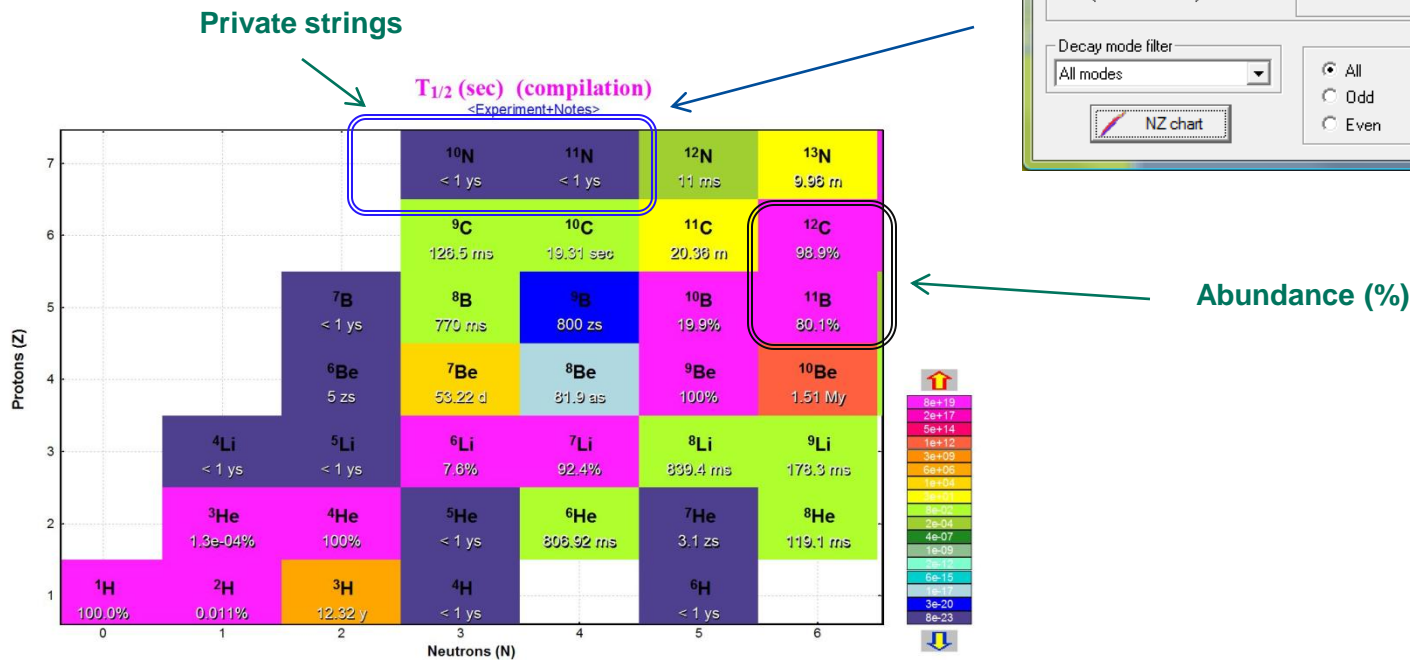
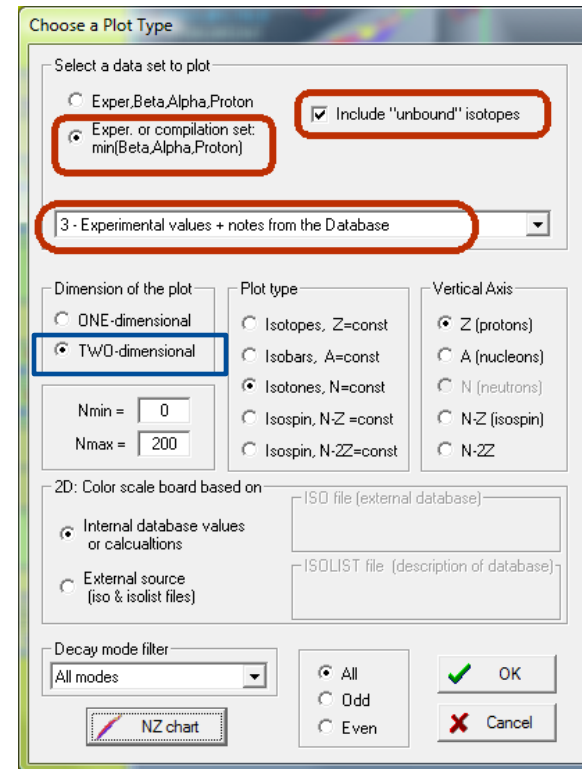
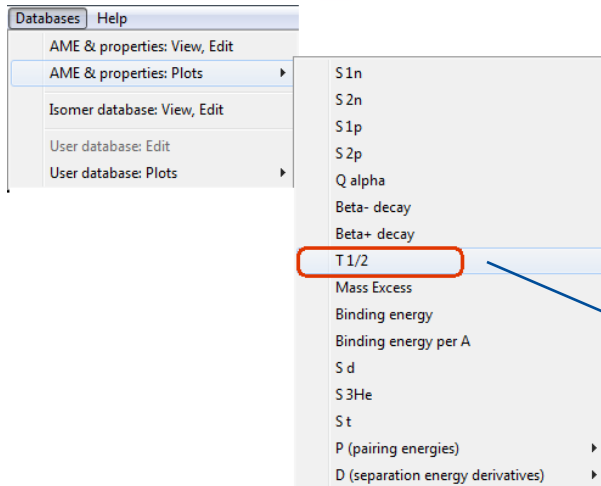
DataBase: 0 - AME2012 (database)

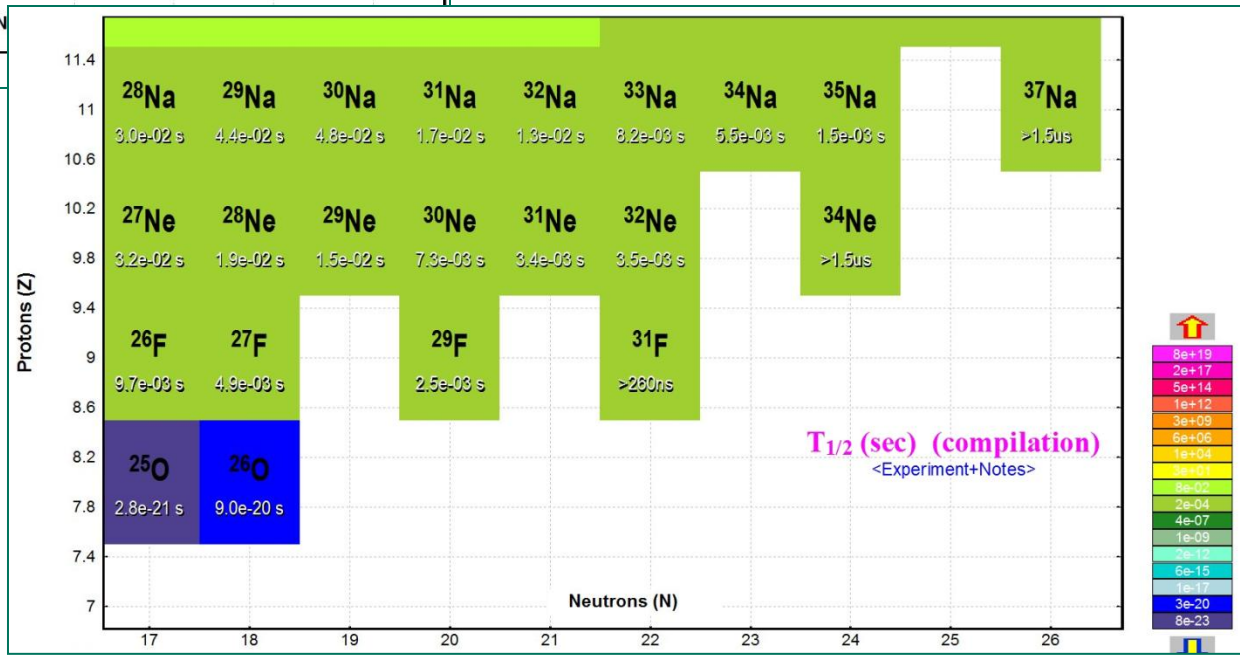
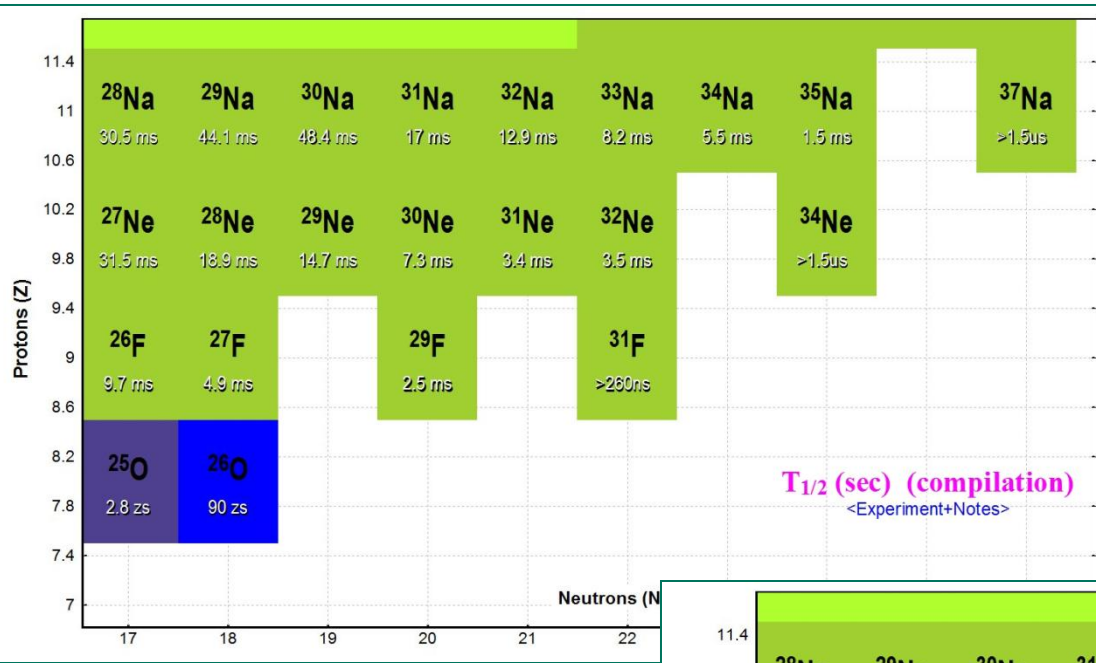
A Element Z N
 269 Mt 109 160
 Unknown

Database Index: 109160

T 1/2: 100# ms private

Plot "Private" strings in 2D plots

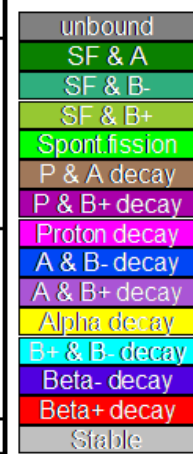
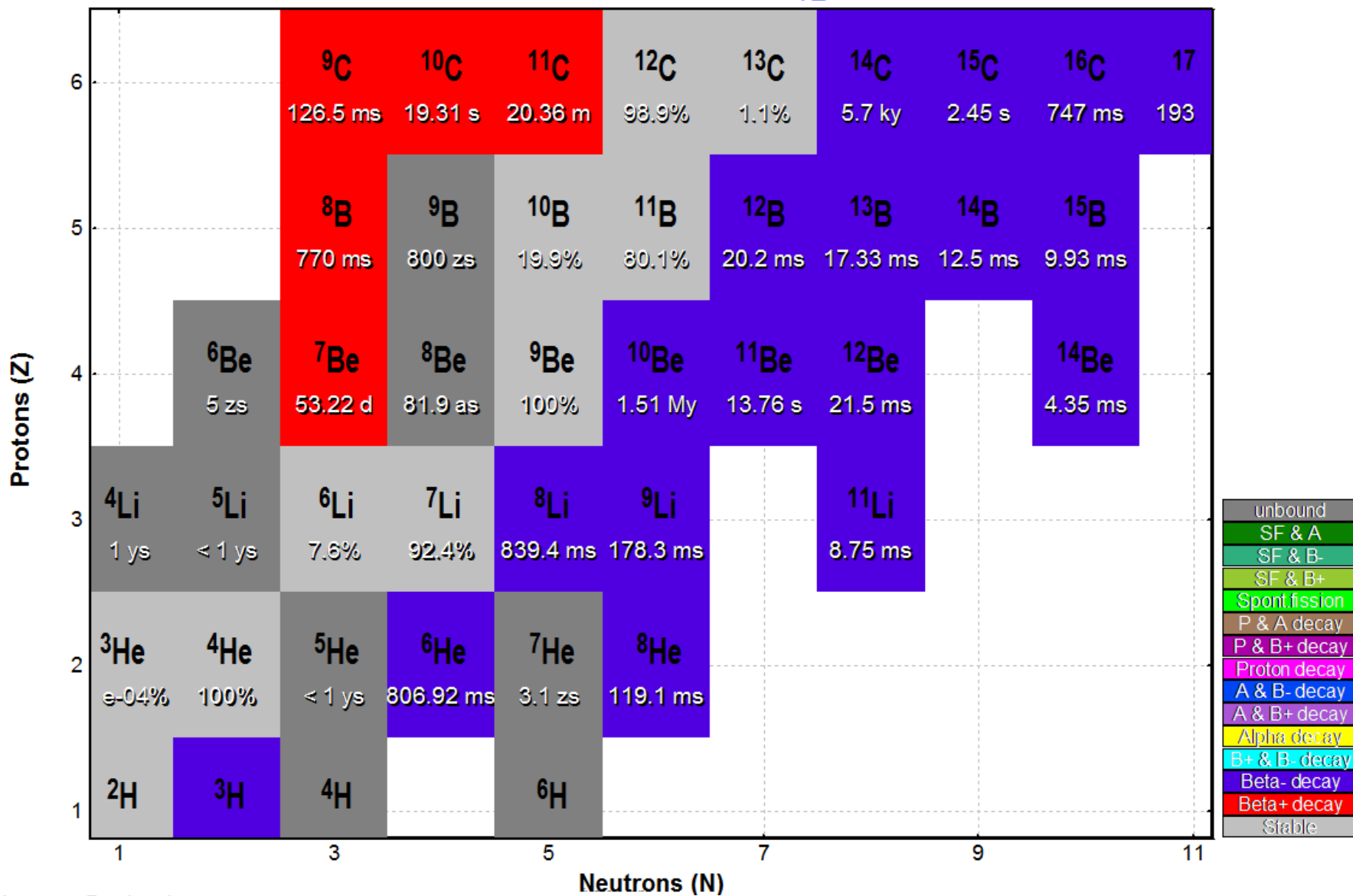




$T_{1/2}$ (sec) (compilation)

<Experiment+Notes>

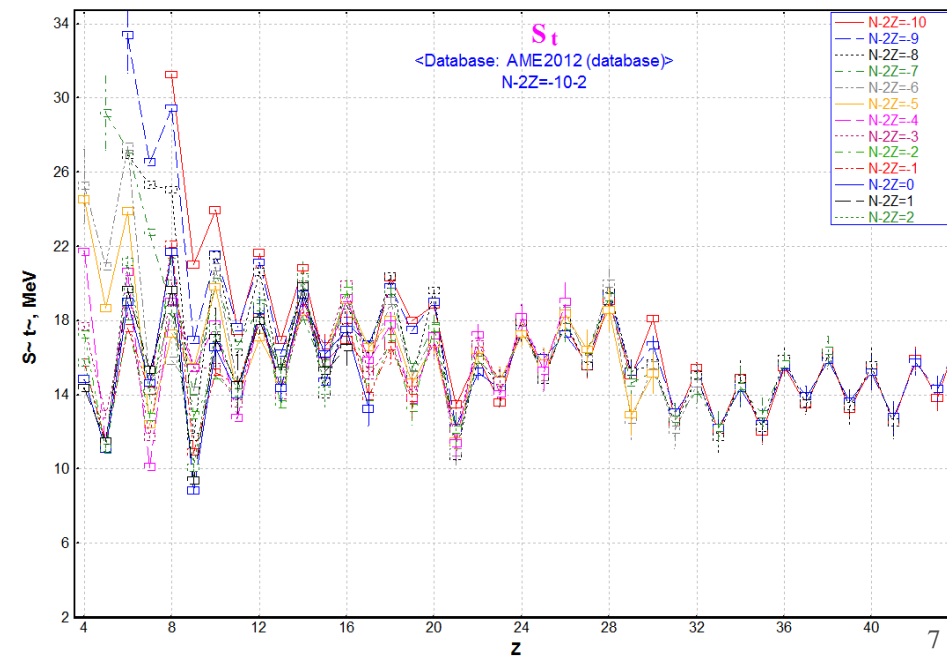
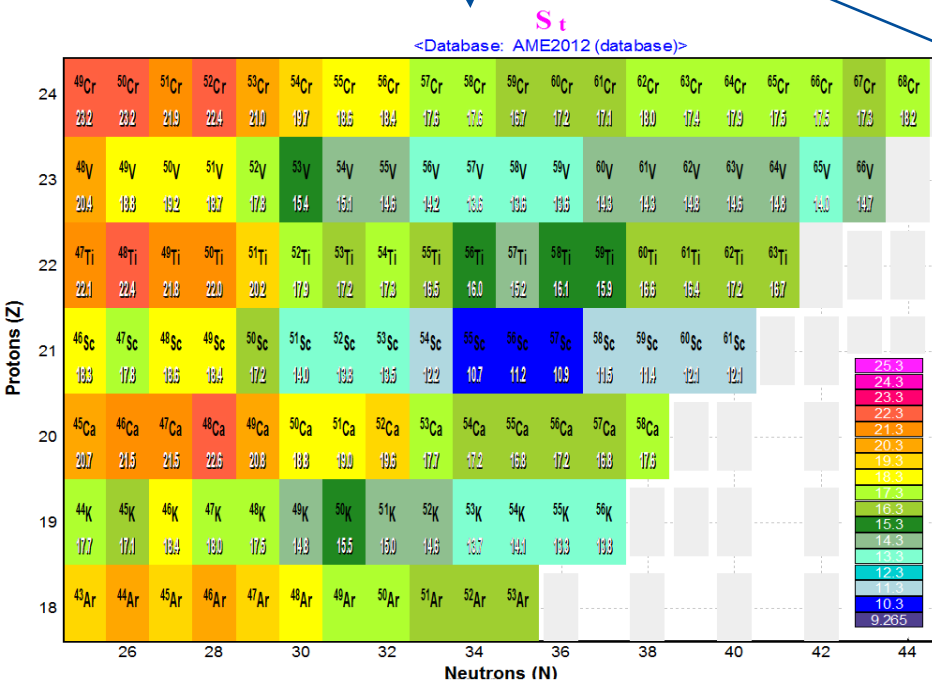
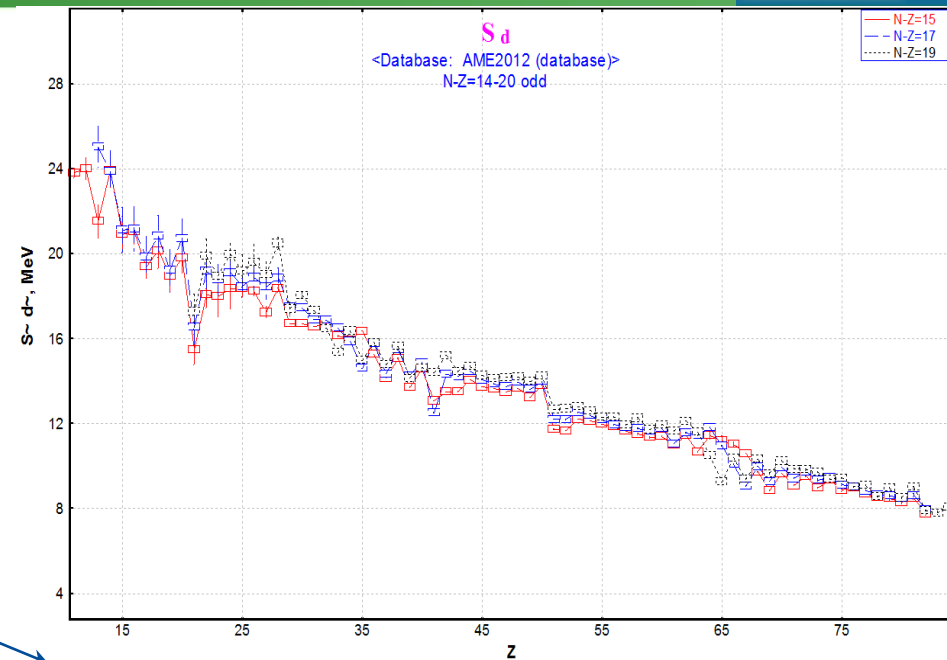
The color scale board is based on "table2012.iso" & "decay_mode2012.isolist" files

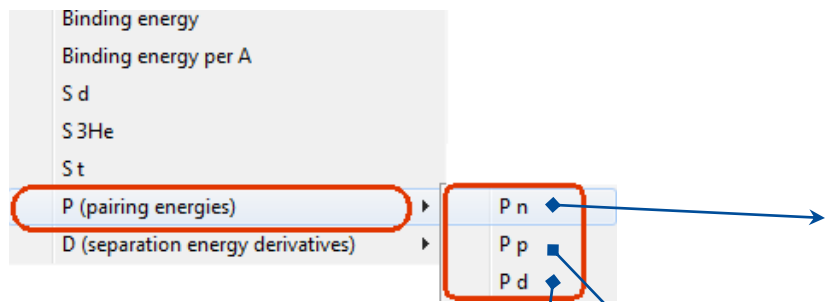


Databases Help

- AME & properties: View, Edit
- AME & properties: Plots
- Isomer database: View, Edit
- User database: Edit
- User database: Plots

- S1n
- S2n
- S1p
- S2p
- Q alpha
- Beta- decay
- Beta+ decay
- T 1/2**
- Mass Excess
- Binding energy
- Binding energy per A
- S d
- S3He
- S t
- P (pairing energies)
- D (separation energy derivatives)





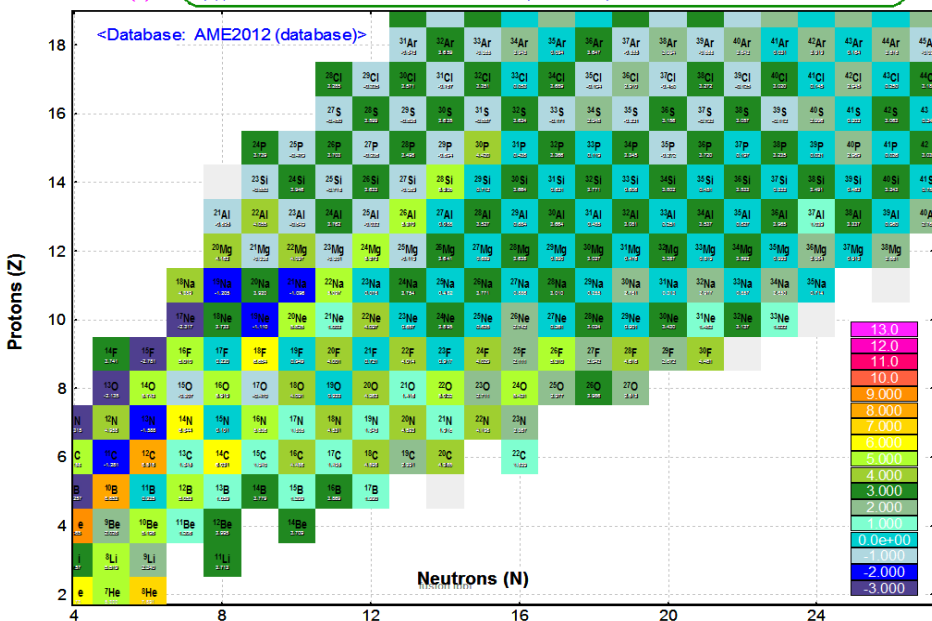
P_n (3)

$$P_n(\beta)(Z,N) = 0.25 \cdot (-1)^{N+1} [S_n(Z,N+1) - 2S_n(Z,N) + S_n(Z,N-1)]; \text{ CPC 2012, 36(12): 1603}$$



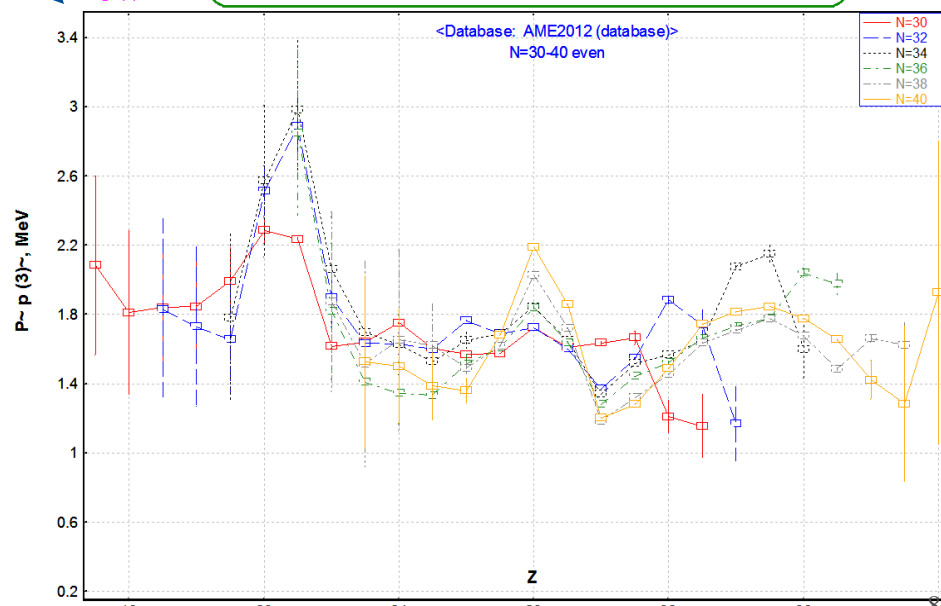
P_d (3)

$$P_d(\beta)(Z,N) = 0.25 \cdot (-1)^{Z+1} [S_d(Z+1,N+1) - 2S_p(Z,N) + S_p(Z-1,N)]; \text{ CPC 2012, 36(12): 1603}$$



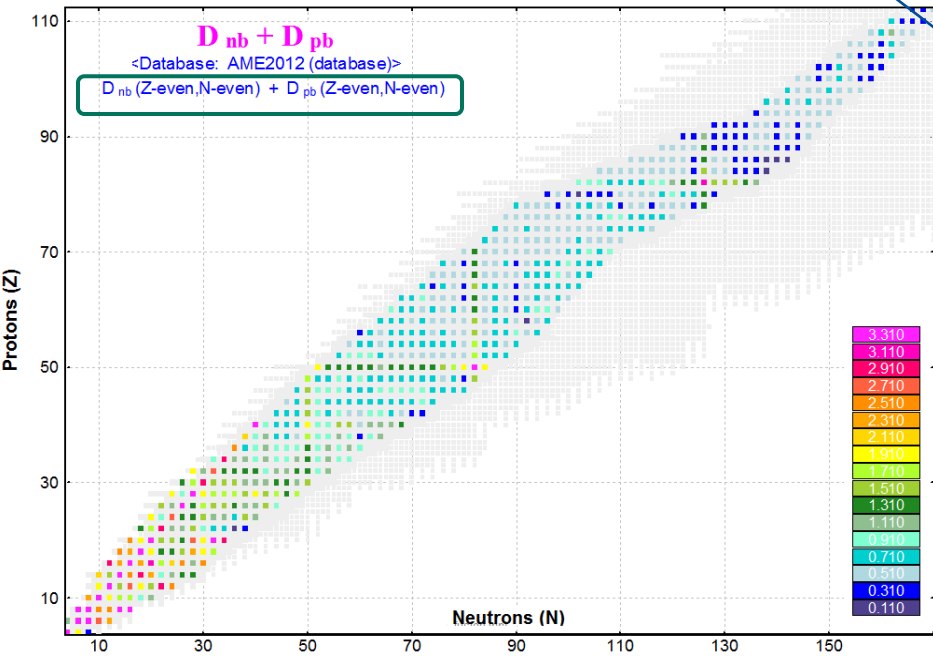
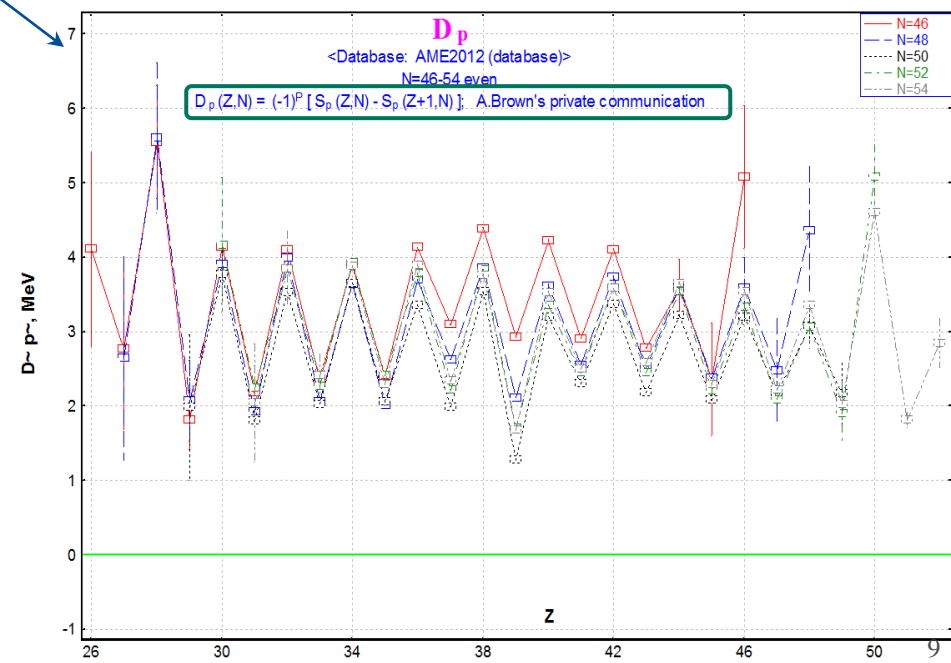
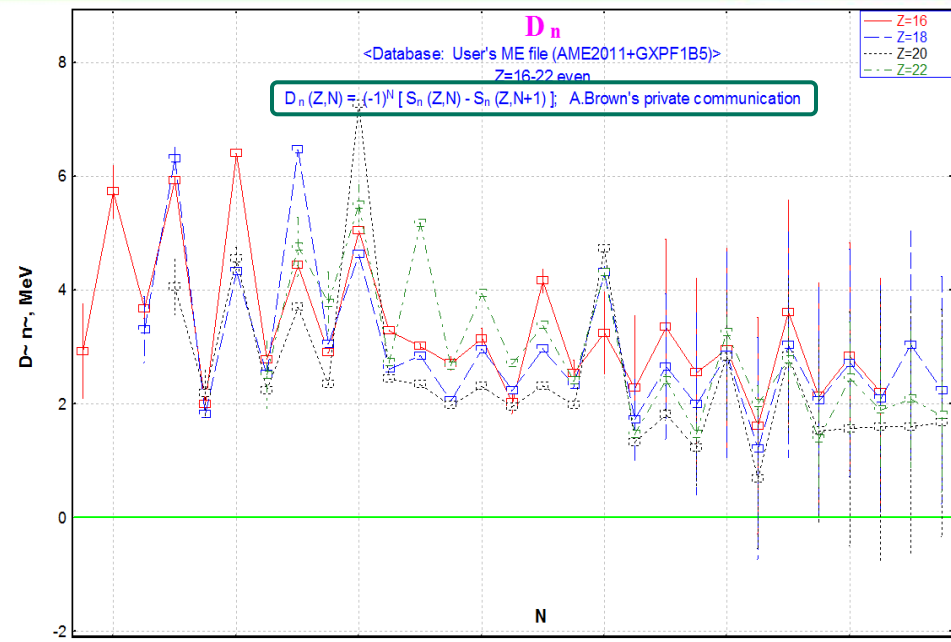
P_p (3)

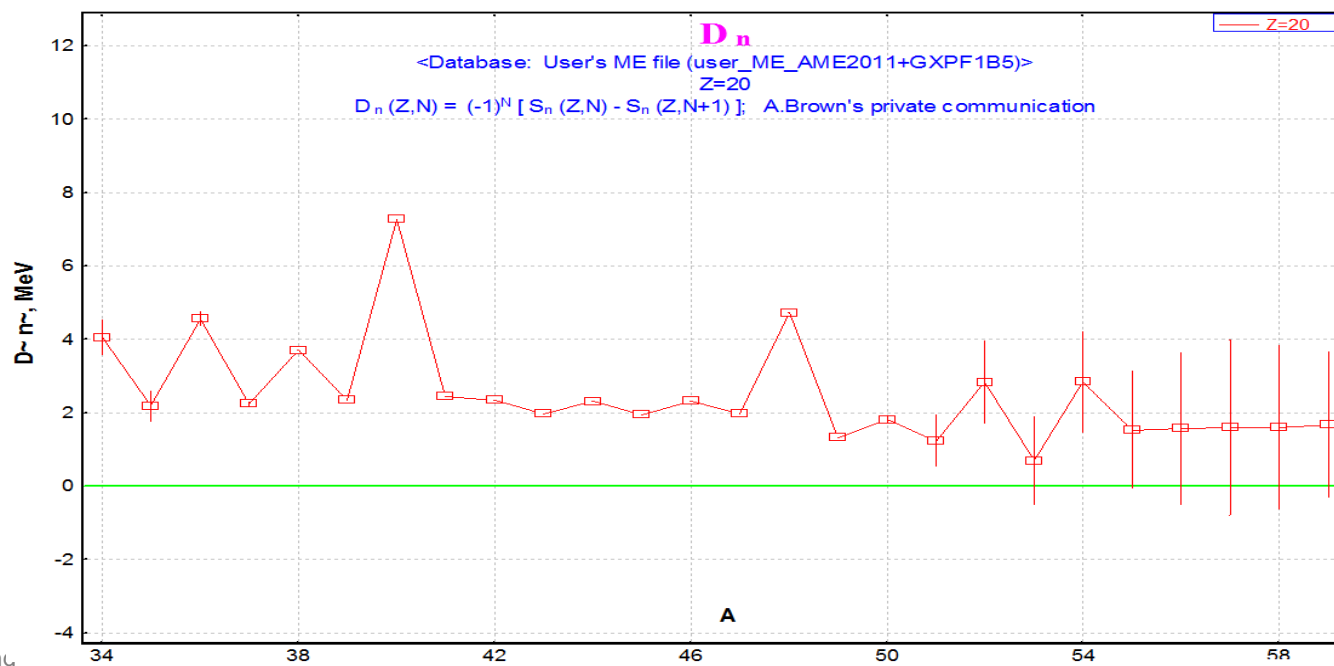
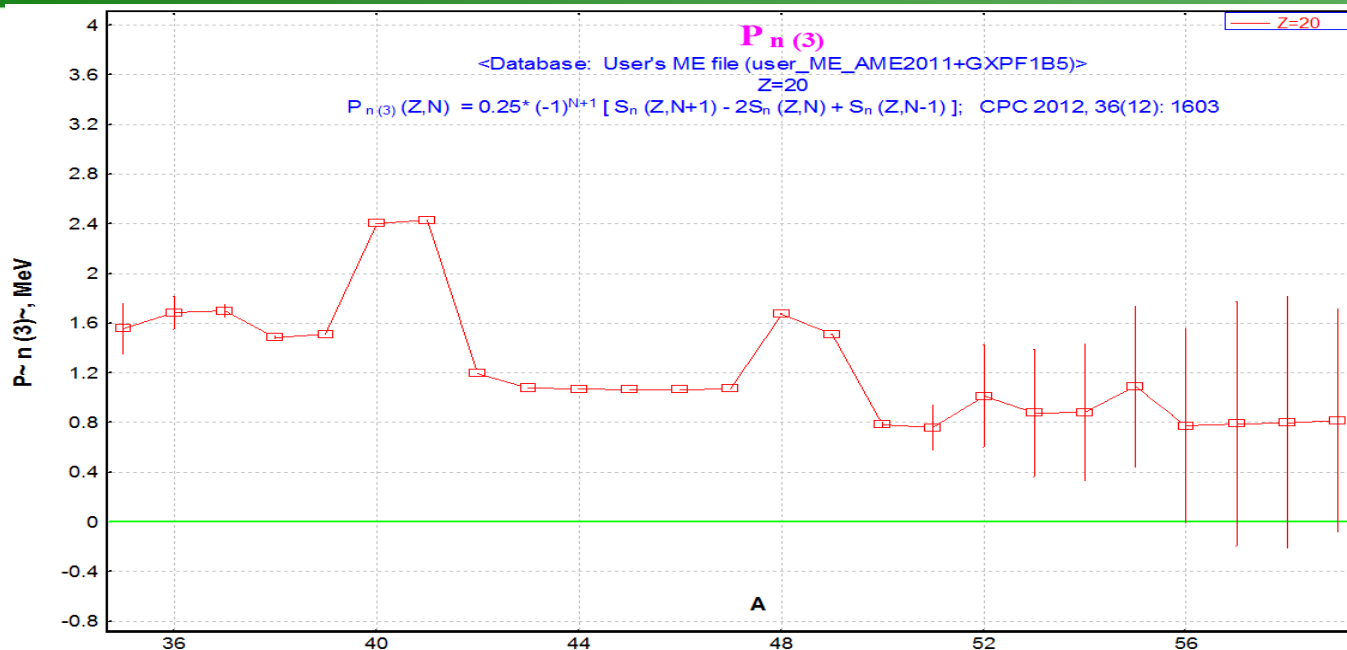
$$P_p(\beta)(Z,N) = 0.25 \cdot (-1)^{Z+1} [S_p(Z+1,N) - 2S_p(Z,N) + S_p(Z-1,N)]; \text{ CPC 2012, 36(12): 1603}$$



- S3He
- St
- P (pairing energies)
- D (separation energy derivatives)**

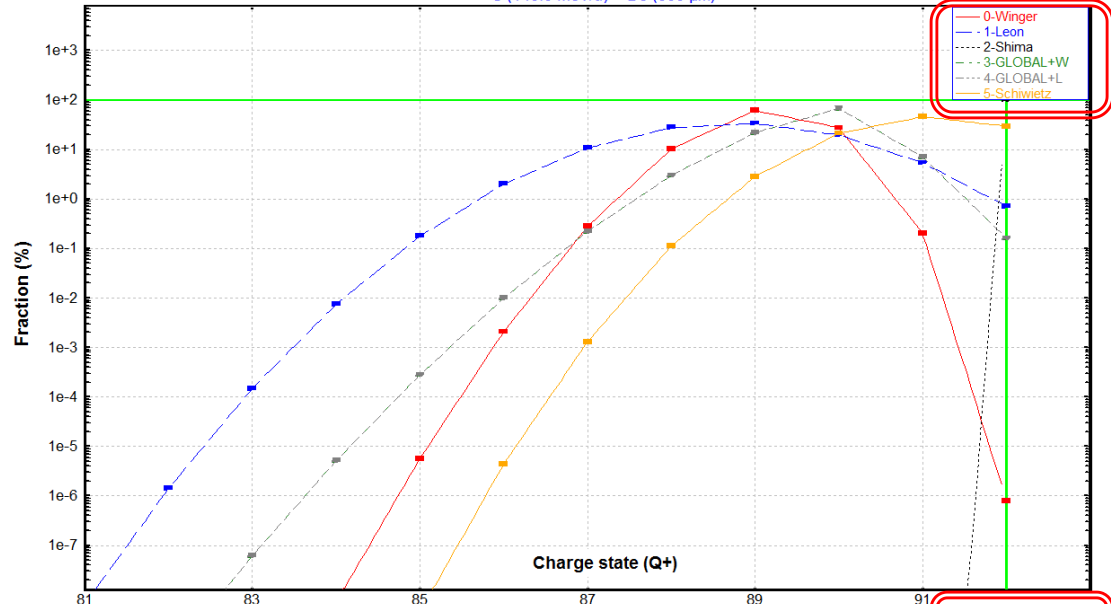
- D n
- D n (odd)
- D n (even)
- D n a
- D n b
- D p
- D p (odd)
- D p (even)
- D p a
- D p b
- Dnp + Dpb





238U equilibrium charge distribution after Target (Be): Fragment energy = 126.1 MeV/u

²³⁸U (140.0 MeV/u) + Be (500 μm)



One-dimensional Plot Drawing Methods

Simple Line
 Interpolation using 2 points
 Interpolation using 3 points
 Cubic spline
 Histogram
 NO lines

with Symbols
 Plot Errors

Draw Distribution

N! Plot:

Plot this distribution

5-Schwietz

0-Winger

1-Leon

2-Shima

3-GLOBAL+W

4-GLOBAL+L

5-Schwietz

