NuDat

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National Nuclear Data Center

1.619 M retrievals in FY12, from 1.584 M in FY11 (not including robots/BNL)

About 9,000 distinct IP addresses

Some 100 e-mails answered from customers.

Minor changes:

A few more coloring schemes

NuDat is now back at the IAEA

Rudstam/Tengblad data

Rudstam et al, Atomic Data and Nuclear Data Tables 45, 239 (1990)

Measured absolute Beta and Gamma spectrum for some fission products

Relevant since NuDat only offers decay data if Sum of Energy x Intensity for all radiation types is within 5 % of Q x BR

Example: 82Ge and 83Ge

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NuDat 2.6

Search and plot nuclear structure and decay data interactively. More.

Color code	Half-life	Decay Mode	$Q_{\beta-}$	Q_{EC}	$Q_{\beta+}$	S_n	S_p	Q_α	S_{2n}	S_{2p}	$Q_{2\beta-}$	Q_{2EC}	Q_{ECp}	$Q_{\beta-n}$
$Q_{\beta-2n}$	BE/A	(BE-LDM Fit)/A	$E_{1st\ ex.\ st.}$	E_{2+}	E_{3-}	E_{4+}	E_{4+}/E_{2+}	β_2	$B(E2)_{42}/B(E2)_{20}$	$\sigma(n,\gamma)$	$\sigma(n,F)$	235U FY	239Pu FY	252Cf FY

Z	80Se STABLE 49.61% 2β-	81Se 18.45 M β-: 100.00%	82Se STABLE 8.73%	83Se 22.3 M β-: 100.00%	84Se 3.26 M β-: 100.00%	85Se 32.9 S β-: 100.00%	86Se 14.3 S β-: 100.00%	87Se 5.50 S β-: 100.00% β-n: 0.20%	88Se 1.53 S β-: 100.00% β-n: 0.67%
33	79As 9.01 M β-: 100.00%	80As 15.2 S β-: 100.00%	81As 33.3 S β-: 100.00%	82As 19.1 S β-: 100.00%	83As 13.4 S β-: 100.00%	84As 4.2 S β-: 100.00% β-n: 0.18%	85As 2.021 S β-: 100.00% β-n: 59.40%	86As 0.945 S β-: 100.00% β-n: 26.00%	87As 0.56 S β-: 100.00% β-n: 15.40%
32	78Ge 88.0 M β-: 100.00%	79Ge 18.98 S β-: 100.00%	80Ge 29.5 S β-: 100.00%	81Ge 7.6 S β-: 100.00%	82Ge 4.56 S β-: 100.00%	83Ge 1.85 S β-: 100.00%	84Ge 0.954 S β-: 100.00% β-n: 10.20%	85Ge 0.56 S β-: 100.00% β-n: 14.00%	86Ge >150 NS β-n β-
31	77Ga 13.2 S β-: 100.00%	78Ga 5.09 S β-: 100.00%	79Ga 2.847 S β-: 100.00% β-n: 0.09%	80Ga 1.676 S β-: 100.00% β-n: 0.86%	81Ga 1.217 S β-: 100.00% β-n: 11.90%	82Ga 0.599 S β-: 100.00% β-n: 19.80%	83Ga 308.1 MS β-: 100.00% β-n: 62.80%	84Ga 0.085 S β-: 100.00% β-n: 74.00%	85Ga <100 MS β-n > 35.0% β-
30	76Zn 5.7 S β-: 100.00%	77Zn 2.08 S β-: 100.00%	78Zn 1.47 S β-: 100.00%	79Zn 0.995 S β-: 100.00% β-n: 1.30%	80Zn 0.54 S β-: 100.00% β-n: 1.00%	81Zn 304 MS β-: 100.00% β-n: 7.50%	82Zn >150 NS β-	83Zn >300 NS β-n β-	84Zn >633 NS β-2n β-
	46	47	48	49	50	51	52	53	N

Tooltips On / Off

Zoom 1 2 3 4 5 6 7

Uncertainty NDS / Standard

Screen Size Narrow / Wide

Nucleus [ ] go

Seconds
> 10+15, 10+10, 10+07, 10+05, 10+04, 10+03, 10+02, 10+01, 10+00, 10-01, 10-02, 10-03, 10-04, 10-05, 10-06, 10-07, 10-15, < 10-15, unknown

Ground and isomeric state information for $^{82}_{32}$Ge

E(level) (MeV)	Jπ	Δ(MeV)	$T_{1/2}$	Decay Modes
0.0	0+	-65.4150	4.56 s 26	β⁻ : 100.00 %

A list of levels and a level scheme are available

Beta spectra 82Ge (Z=32)
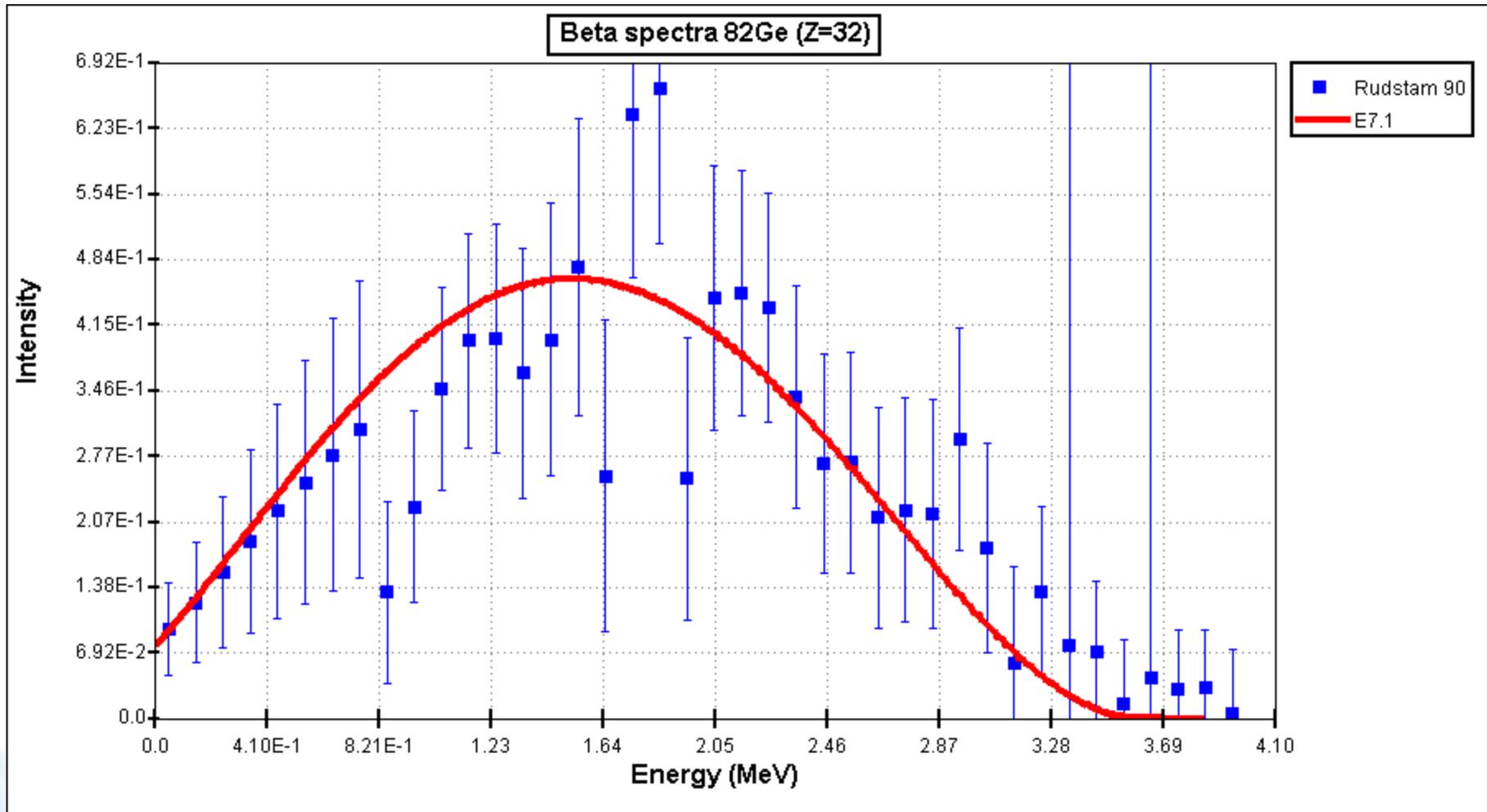
Gamma spectra 82Ge (Z=32)

Beta spectra 83Ge (Z=32)

Gamma spectra 83Ge (Z=32)

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Beta spectra 92Rb (Z=37)

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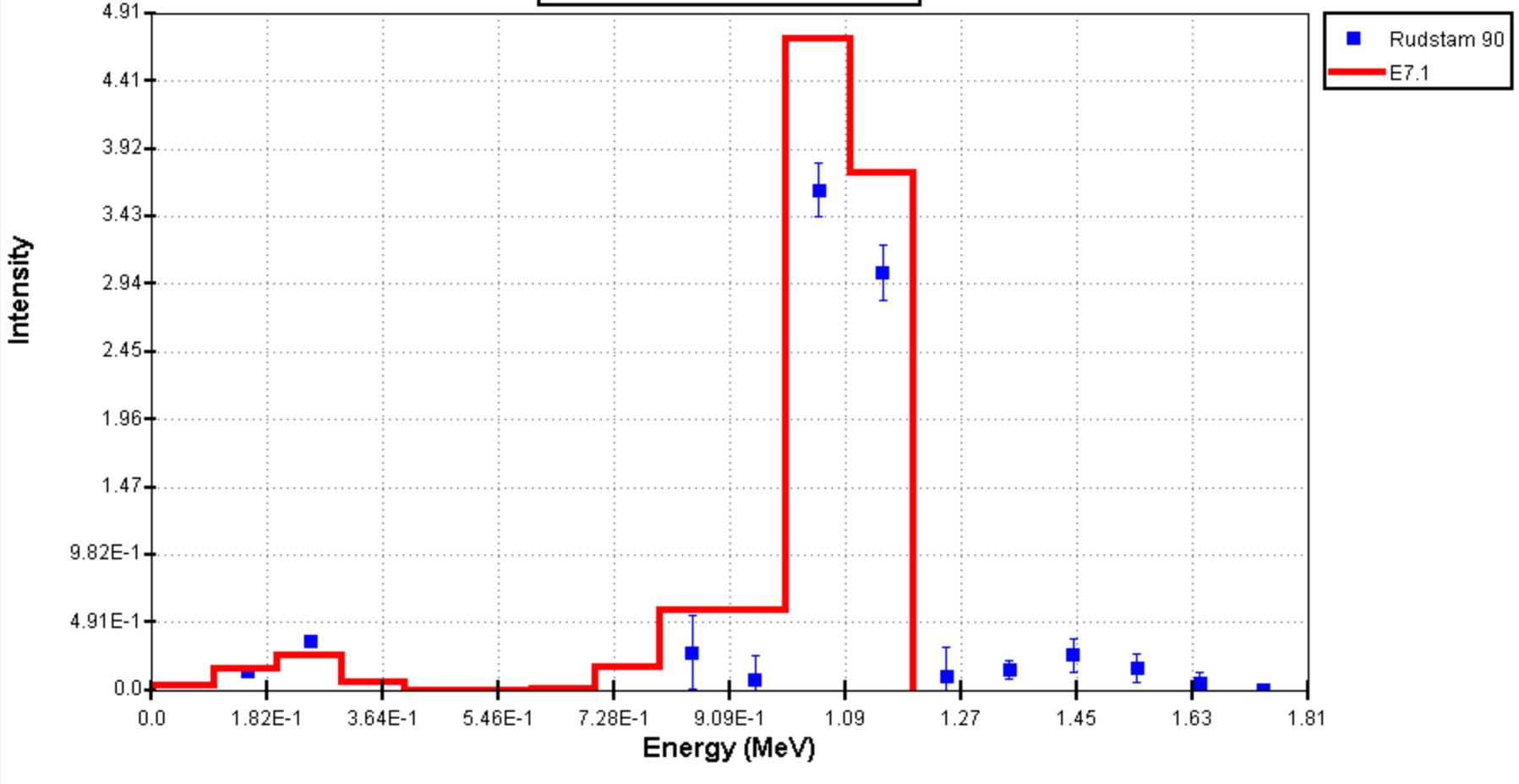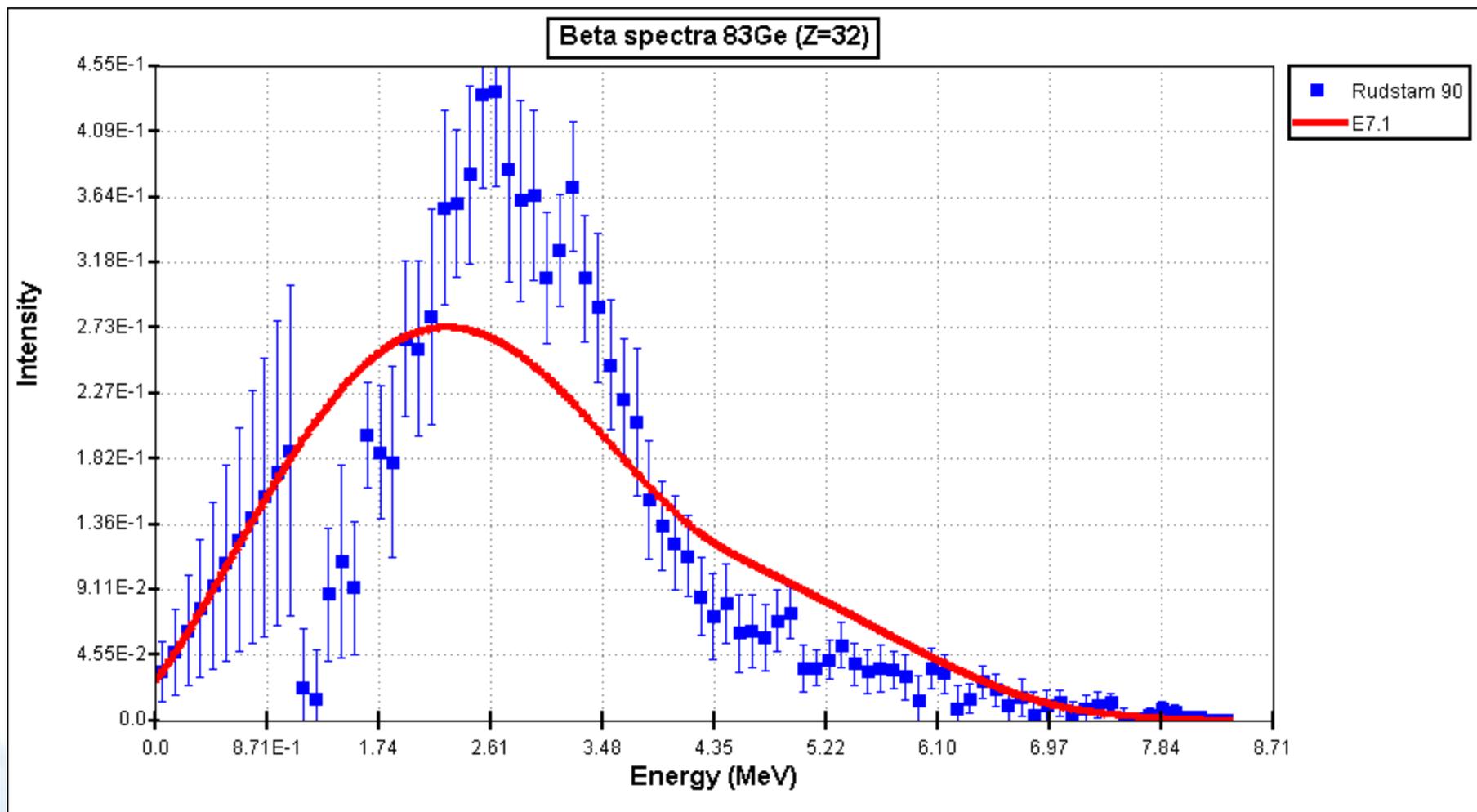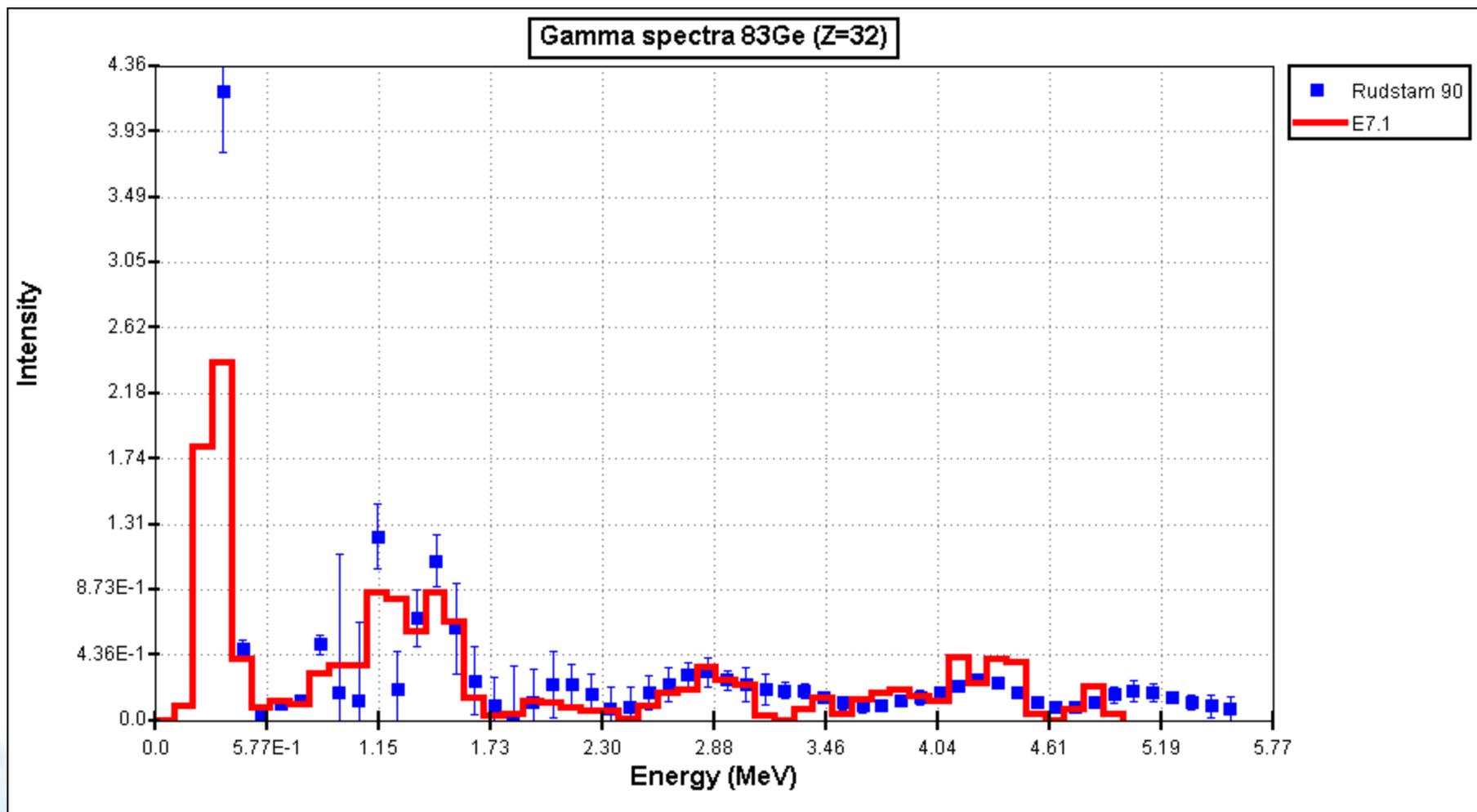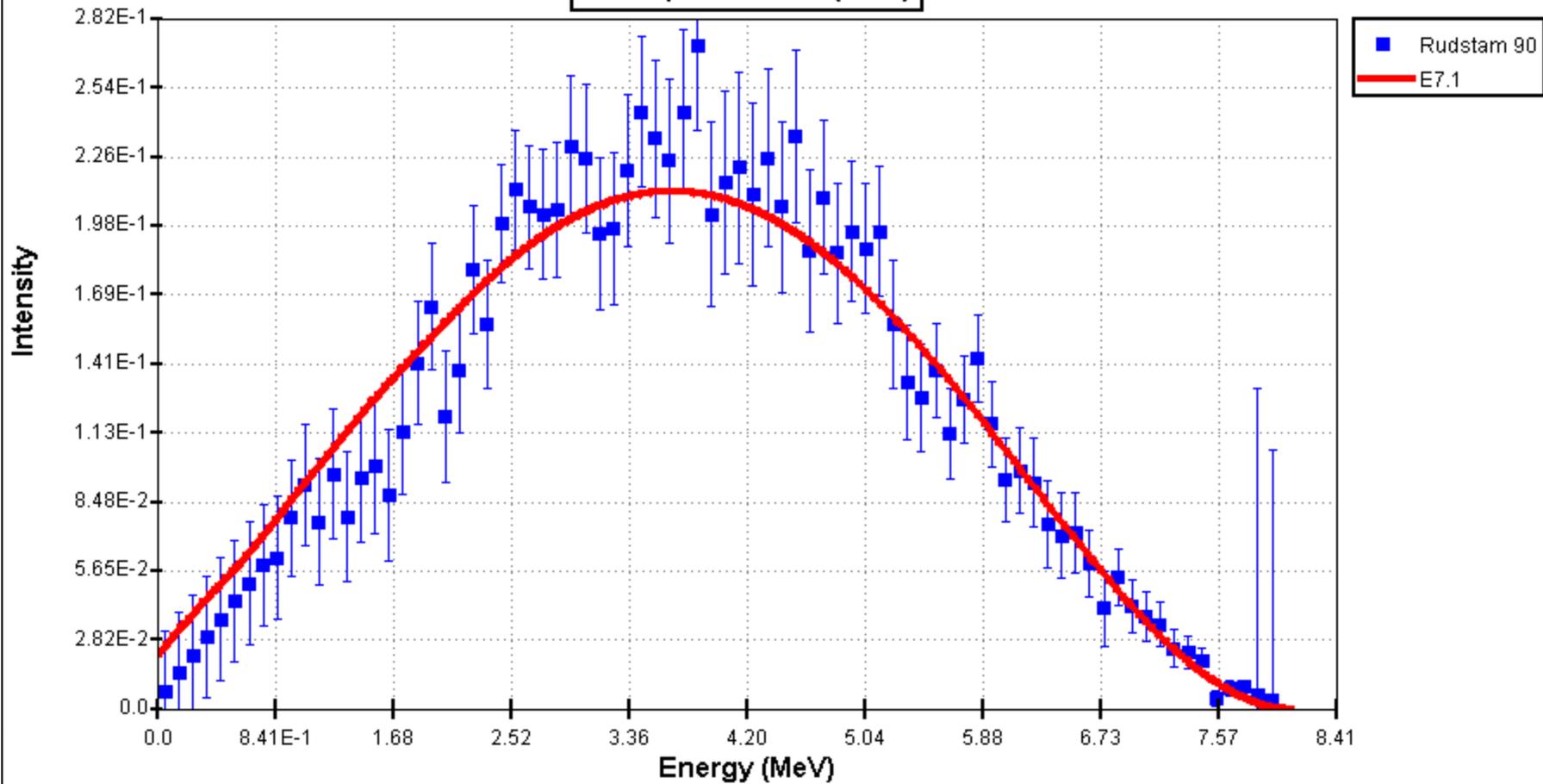
Several decay data sets were normalized by fitting to the Rudstam values.

Will it be ok if we consult to original evaluator and then submit it to ENSDF?