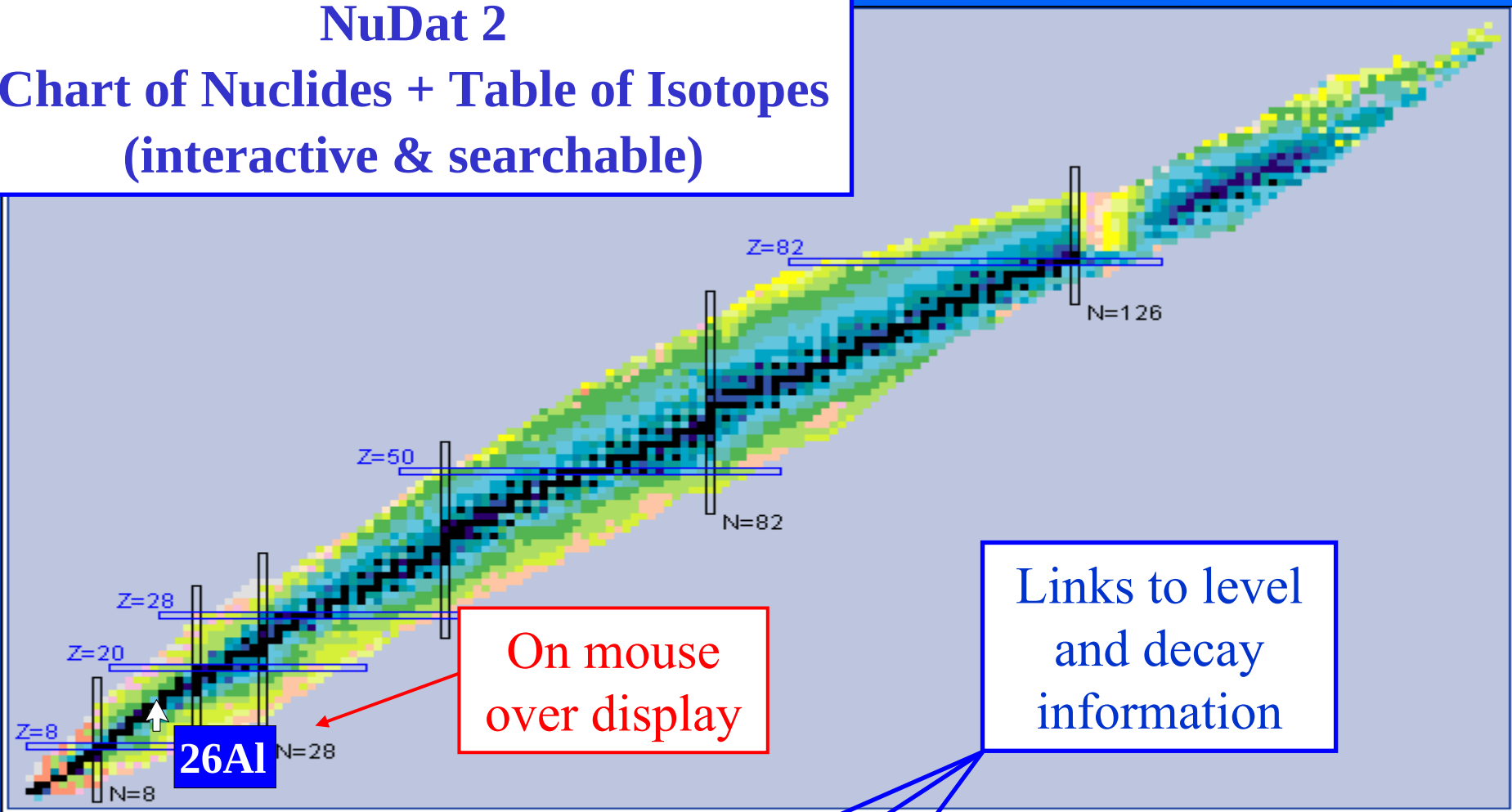
NuDat 2
Chart of Nuclides + Table of Isotopes (interactive & searchable)



On mouse over display

Links to level and decay information

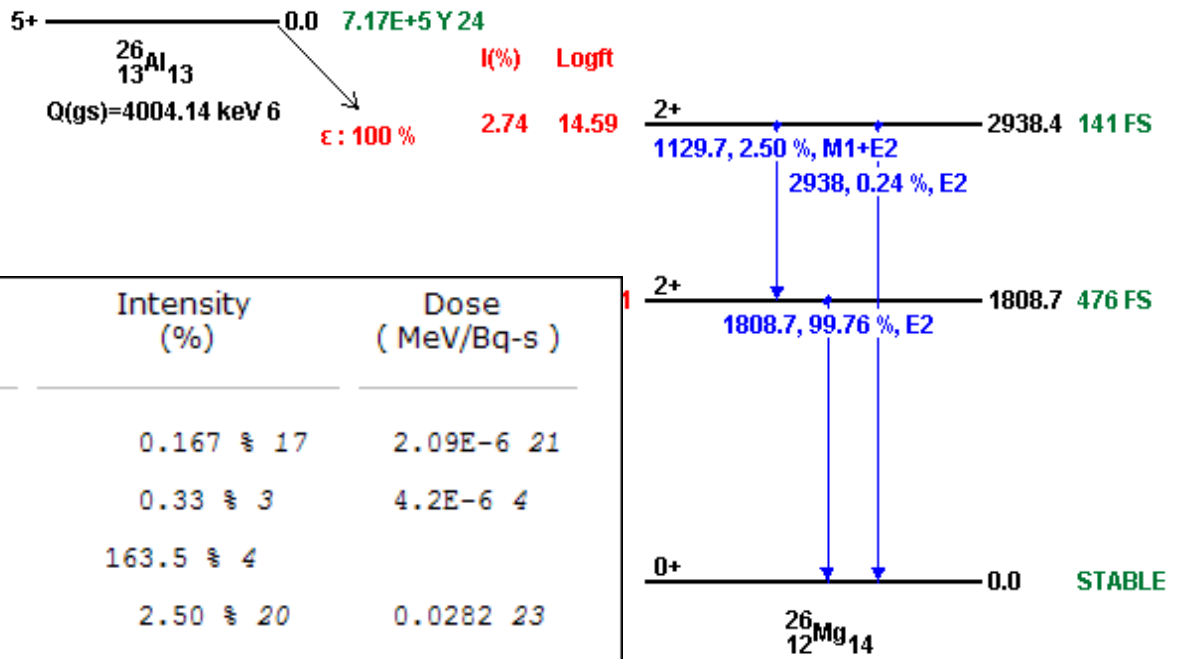
Ground and isomeric state information for $^{26}_{13}$Al

E(level) (MeV)	Jπ	Δ(MeV)	$T_{1/2}$	Decay Modes
0.0	5+	-12.2103	7.17E+5 y *24*	ε : 100.00 %
0.2283	0+	-11.9820	6.3452 s *19*	ε : 100.00 %

A list of levels, a level scheme and decay radiation information are available

^{26}Al β+/EC decay

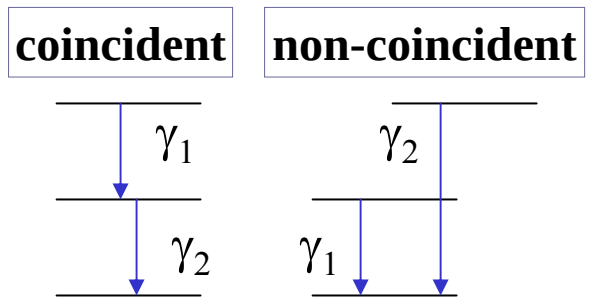
Parent Nucleus	Parent E(level)	Parent Jπ	Parent $T_{1/2}$	Decay Mode	GS-GS Q-value (keV)	Daughter Nucleus	Decay Scheme
$^{26}_{13}$Al	0.0	5+	7.17E+5 y *24*	ε: 100 %	4004.14 *6*	$^{26}_{12}$Mg	



Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
XR kα2 1.254	0.167 % *17*	2.09E-6 *21*
XR kα1 1.254	0.33 % *3*	4.2E-6 *4*
Annihil. 511.0	163.5 % *4*	
1129.67 *10*	2.50 % *20*	0.0282 *23*
1808.65 *7*	99.76 % *4*	1.8043 *7*
2938	0.24 % *4*	0.0071 *12*

Search Capabilities

Powerful tool to identify materials using Gamma rays coincidences



Nuclear Levels and Gamma

(Help)

Specify Nuclei :
- Nucleus: Ex: 232TH or th232 or 232
- Z / Element: A:
- ≤ Z ≤ ≤ A ≤ (Any Z / Any A)

E(level) condition: enabled / disabled 0 ≤ E_{level}(keV

Decay Mode condition: enabled / disabled **Decay Mode** ANY

Jn(level) condition: enabled / disabled **J** = **Order :** ALL **Parity :** ANY

$T_{1/2}$(level) condition: enabled / disabled 0 fs ≤ $T_{1/2}$ ≤ 1E10 Gy

γ condition #1: enabled / disabled 0 ≤ E_γ(keV) ≤ 40000 **Multipolarity:** ANY

γ condition #2: enabled / disabled 0 ≤ E_γ(keV) ≤ 40000 **Multipolarity:** ANY

γ-γ coincidence condition : any / coincident **Coincidence gate** ≤ 1 us

Ordering: Z, A, E(level),E(gamma) Output: Web Page / Formatted File

Search Reset

NuDat2 - Levels and Gammas database version of 7/12/2005

NuDat 2

www.nndc.bnl.gov/nudat2

- Nuclear structure and decay data for all known nuclei
- Based on ENSDF and Nuclear Wallet Cards
- 40+ contributors worldwide
- Constantly updated
- Fast Servers (two dual 3.2 GHz, 6 GB RAM)
- Latest programming technologies

Widely used in:

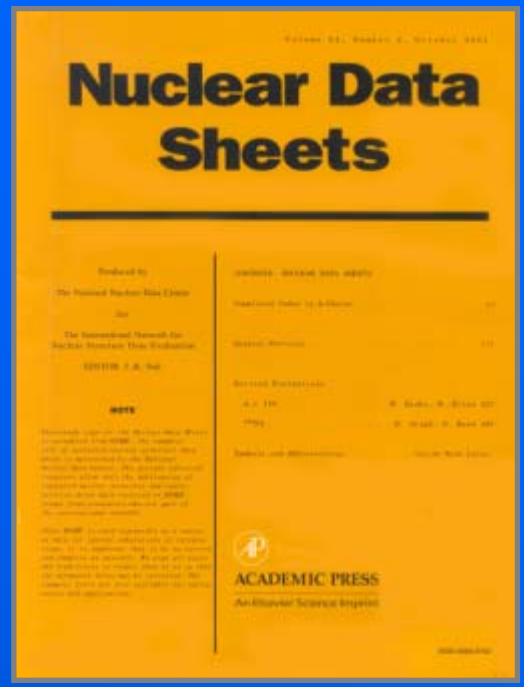
- Input data for simulations
- Decay standards
- Laboratory tool
- Education

Contents

Number of nuclei	2,932
Number of levels	140,102
Number of γ's	204,017
Number of α's	2,274
Number of β-, β+/EC's	22,376
Number of γγ-coincidences	2,376,466

Nuclear Data Sheets

www.nndc.bnl.gov/nds



Recommended values for

- Nuclear levels: energy, half-life, spin and parity, decay modes, moments.
- Nuclear radiation types: gamma, electron, positron, neutron, proton, alpha.
- Nuclear radiation properties: energy, intensity; mixing ratios and internal conversion coefficients, logft values, and hindrance factors.
- Nuclear decay types and their probabilities.
- Contributions from 40+ members of the International Network of Nuclear Structure and Decay Data Evaluators.
- Jag Tuli, Editor.

Online index and retrieval of articles

Nuclear Wallet Cards

www.nndc.bnl.gov/wallet

- Spin and parity
- Nuclear mass excesses
- Half-life, abundances
- Decay modes

NUCLEAR WALLET CARDS

April 2005

Jagdish K. Tuli

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Nuclear Wallet Cards for Radioactive Nuclides

March 2004

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USA

HTML, PDF and PDA versions

- Decay properties for radioactive nuclides, with $T_{1/2} \geq 1$ h and $Z \leq 100$
- Designed for field personnel
- Homeland security uses