NSR KEYWORDING

Content and Relevance, An NSR Compiler's Perspective

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Popular saying in data networks:

NSR database only (or primarily) for ENSDF evaluations Does not seem true, as the following stats will show

Example: PRC October 2007 – September 2009, 24 issues (About 24% of the total NSR entries per year are from PR-C)

Sampling is based on keywording (at McMaster) of the last 24 issues of PRC

Sample of Keyword Statistics

- Oct 2007 Sept 2009
 PRC (24 Issues)
- 1923 papers.
- 1272 Keyworded (66%)
- Relativistic heavy-ion papers and papers which do not contain any nuclide are not keyworded (34%) (NUCLIDE: A ≥ 1



	Number of Papers(1%)
Experimental	592
Theoretical	680
Not Keyworded	651

NSR Classification: PR-C Oct 07 to Sept 09 (24 issues)

Торіс	Number of Papers	
	Experimental	Theoretical
Nuclear Reactions (N-R)	232 (Non-ENSDF) 222 (ENSDF)	289 (?)
Radioactivity (Rad)	115	72
Nuclear Structures (N-S)	0	317
Atomic Masses (A-M)	10	0
Nuclear Moments (N-M)	13	2
Atomic Physics (A-P)	0	0
Compilations (Com)	0	0



ENSDF/ XUNDL Related papers

360 (28%)

Relevance

- Reaction theory papers: most difficult to keyword; wonder whether anyone uses NSR to retrieve these papers.
- Radioactivity theory papers: alpha decay, cluster decay; generally have the entire (large) range of nuclides.
 Are these useful to keyword?

Archaic style of entering information

- Inflexible format
- Range of nuclides cannot be entered and retrieved accordingly
- Large number of nuclides in a paper cannot be handled well.

Some examples: difficult to handle with current format of NSR

Tarasov et al., PRL 102, 142501 (2009);
 Phys. Rev. C 80, 034609 (Sept. 2009)
 About 300 nuclides.

 Krolas et al., NP-A (online Oct 29, 09): Production cross sections of ~500 nuclides from A=53 to 215 in two deep-inelastic collisions