NRDF/A

NUCLEAR REACTION DATA FILE FOR ASTROPHYSICS IN JCPRG

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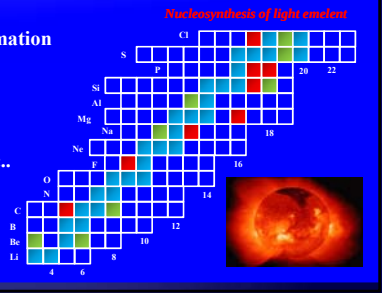
NRDF/A

Nuclear Reaction Data File For Astrophysics

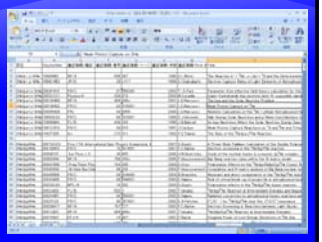
I. Theoretical evaluations for astrophysical reactions of light nuclei

II. Bibliographic information
- NSR based info.

III. Data compilation
- s-factor,
- reaction rate etc..
- experimental
- theoretical



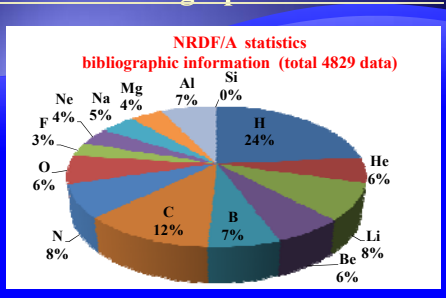
II. NRDF/A bibliographic information



http://www.jcprg.org/nrdfa/

Bibliographic information based on the NSR data base.

II. NRDF/A bibliographic information



- 139 Nuclear Reaction
- Incident particle (e, p, d, t, 3He a, n)

III. NRDF/A Data compilation

NRDF/A DATA COMPILATION WEB-SITE WILL BE OPENED NEAR THE FUTURE

experimental & theoretical
- s-factor
- reaction rate
- β-decay rate
- resonance parameter
- etc…

Previous version NRDF/A CD-ROM (2006)

III. NRDF/A Data compilation example

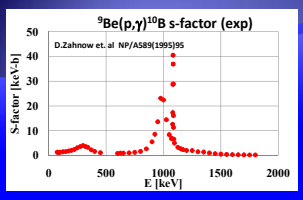
```
#NO          A0008-1
#TITLE       Thermonuclear reaction rates of 9Be(p,g)10B
#AUTHOR      D.Zahnow, C.Angulo, M.Junker, C.Rolfs, S.Schmidt, W.H.Schulte, E.Somorjai
#INSTITUTE
#REFFERENCE  NP/A589(1995)95
#REACTION    9Be(p,g)10B
#PHQ         S-factor
#STATUS      Table.1, Fig.4
#            Experiment
#Compiled    A.Wano in 2009/12/28
#Checked     A.Makinaga in 2010/1/29
#COMENT
#            (a)Effective beam energy within the target.
#            (b)Statistical error only.
#            (c)Standard Value (see text).
#            (d)Reaction yield (not the S(E) factor due to narrow width of the Er=1083 keV resonance.
#
# DATA
#=================================================================
#Eeff(a) Error  S-factor(b) Error   Comment
#(keV)   (keV)  (keV-b)     (keV-b)
73.3     0.5    1.31        0.07
85.8     0.5    1.24        0.05
98.4     0.5    1.26        0.05
123.5    0.5    1.45        0.06
```

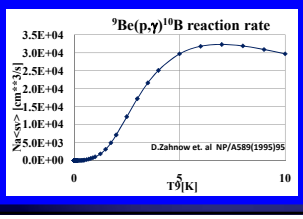
Bibliographic information

Comment

data

III. NRDF/A Data compilation example






NUCLEAR PHYSICS A

Thermonuclear reaction rates of ^{9}Be(p, γ)^{10}B

D. Zahnow, C. Angulo, M. Junker, C. Rolfs, S. Schmidt, W.H. Schulte, E. Somorjai

III. NRDF/A Data compilation example

Lists of new theoretical and experimental data compiled in NRDF/A.

Reaction	Exp.	Theor.
d(^{3}He,p)^{4}He	3	0
^{3}He(d,p)^{4}He	1	0
^{3}He(α,γ)^{7}Be	2	0
^{9}Be(p,γ)^{10}B	1	1
^{9}Be(p,α)^{6}Li + ^{9}Be(p,d)^{8}Be	1	0
^{9}Be(p,α)^{6}Li	2	
^{9}Be(p,d)^{8}Be	1	0
Total	11	2

Phys. Quant.	Exp.	Theor.
s-factor	11	1
cross section	2	0
reaction rate	0	1
Total	13	2

Compiled in 2009