

# My experience about EXFOR ~ How NRDC treated our data ? ~

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(~June , 30 2009: Konan Univ.)

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## Compilation process

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## Contact from Nuclear Data Center

In case of Konan University & JCPRG

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## We can see data from EXFOR !

**But! In 2009 ,there exist problems.**  
**Why two data sets(same data) are exist ??**  
**What's happened !?**

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## (K2111)Publication in AIP-1016,134,2007

The 10<sup>th</sup> International Symposium on "Origin of Matter and Evolution of Galaxies" December 4-7, 2007, Japan

### Compilation by Japanese Center

TITLE 80Se(g,n)79Se cross section and s-process branching at 79Se  
AUTHOR (A.Makinaga, H.Utsunomiya, T.Kaihorii, T.Yamagata, H.Akimune, S.Goriely, H.Harano, H.Harada, F.Kitatani, Y.K.Hara, S.Hohara, and Y.-W.Lui)  
INSTITUTE (J2PNKON) Department of Physics  
REFERENCE (C, 2007SAPFOR, ,134,200712)  
STATUS (AFRND) Proofread by Hiroaki Utsunomiya (2009.03.05)  
HISTORY (20081124C) Received by e-mail from A. Makinaga (20090303R)

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## (L0144)Publication in PRC,79,025801,2009

PHYSICAL REVIEW C 79, 025801 (2009)  
Photodisintegration of <sup>80</sup>Se: Implications for the s-process branching at <sup>79</sup>Se

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### Compilation by US Center

TITLE Photodisintegration of 80Se: Implications for the s-process branching at 79Se  
AUTHOR (A.Makinaga, H.Utsunomiya, S.Goriely, T.Kaihorii, S.Goko, H.Akimune, T.Yamagata, H.Toyokawa, T.Matsuoto, H.Harano, H.Harada, F.Kitatani, Y.K.Hara, S.Hohara, Y.-W.Lui)  
INSTITUTE (J2PNKON) 2BLGBRU, 2JPNJAB, 2JPNJAS  
REFERENCE (J, PR/C, 79, 025801, 2009)  
HISTORY (20090211C) Compiled by S.H.  
STATUS (CURVE) data taken from fig. 5 of the reference  
Waiting for data from author

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### Problems (1/2)

① Data Request from US Center

From hlavac@savba.sk Mon Feb 9 14:38:29 2009  
 From: Stanislav Hlavac <hlavac@savba.sk>  
 To: makinaga@konan-u.ac.jp  
 Cc: utsunomya@konan-u.ac.jp  
 Subject: CSISRS/EXFOR

These are not our e-mail addresses. We did not receive it.

Dear Dr. Makinaga,  
 at present I am compiling for the BNL National Nuclear Data Center the measured/published data for the CSISRS/EXFOR data library. NNDC is now responsible for compilation of all relevant papers published in Phys. Rev. C. Recently I got your paper entitled  
 Photointegration of <sup>76</sup>Se. Implications for the s-process branching at 79Se published in PHYSICAL REVIEW C 79, 025801 (2009). This mail is provided by N.T

② Several Remarks on File from US

- ◆ (ERR-T) Total uncertainty
  - **Not true. I did not plot total uncertainty in the figure.**
  - ◆ (CURVE) data taken from fig. 5 of the reference
  - **Some error-bars are very small and invisible. Our original uncertainties are stretched in digitized data.**

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### Problems (2/2)

③ Accuracy of Digitization

Graph of Cross Section

Incident energies are digitized very accurately!  
 But cross sections and its uncertainties are overestimated.  
 (Digitization from logarithmic scale is probably difficult.)

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### Summary

- **Japanese experimentalists and JCPRG have already good collaborative relationships.**
- But, in 2009, our data was compiled **twice** by the NRDC network.
- This situation provide inaccurate data file to EXFOR user, and upset a good relationship between experimentalists and NRDC network.
- **I hope NRDC will treat our work more carefully !!**

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### Photonuclear experiment at AIST

Neutron detector system

#### Photoneutron reaction

1. Nuclear physics
2. Astrophysics
3. Nuclear technology

Precise experimental nuclear data is needed.

Laser Nd:YVO<sub>4</sub>

TERAS

Electron storage ring TERAS

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