

ACTIVITY of CAJAD
for the
IAEA Meeting:
France , Issy-les-Moulineux
16-19 April 2012
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Our **Exfor activity** had main direction-

1. Compilation A -Library.

After last meeting 2011 year **A070- A073, A075- A077** trans file were prepared.

The number of new entries of charged-particles induced data was 74 and 133 corrected entries, which were updated according new exfor rules and last meeting conclusions. Basically the new entries contains the experimental data on elastic and inelastic scattering ,fission cross sections and isotope production cross sections.

| TRANS | TRANS- | ENTRIES | ENTRIES | ENTRIES |
|-------------|---------------|-----------|-----------|-----------|
| | Status | Total | NEW | Revised |
| A070 | Final | 46 | 00 | 46 |
| A071 | Final | 18 | 18 | 00 |
| A072 | Final | 17 | 9 | 8 |
| A073 | Final | 30 | 11 | 19 |
| A075 | Final | 33 | 10 | 23 |
| A076 | Final | 20 | 18 | 2 |
| A077 | Prelim | 43 | 8 | 35 |

The compilation of SHE(super-heavy element production) papers

The compilation of SHE papers, recommended by NRDC was performed by CAJAD (Trans A073) and represented by Dr.Mohini Gupta on SHE meetings at Manipal (February 2012)

List of new EXFOR entries

| EXFOR # | Primary references |
|----------------|--|
| A0856 | Yu.Ts.Oganessian+, PRC 74(2006)044602 |
| A0889 | Yu.Ts.Oganessian+, PRC 70(2004)064609 |
| A0890 | Yu.Ts.Oganessian+, PRC 69(2004)021601 Yu.Ts.Oganessian+, PRC 72(2005)034611 |
| A0891 | Yu.Ts.Oganessian+, PRC 69(2004)054607 |
| A0892 | Yu.Ts.Oganessian+, PRC 76(2007)011601 |
| A0893 | S.Hofmann+, ZPA 354(1996)229 |
| A0894 | S.Hofmann+, EPJA14(2002)147 |
| A0895 | S.Hofmann+, EPJA 32(2007)251 |

Following Action 33 of the last meeting, english translations of articles published in “Yadernaya Fizika” (YF) coded in EXFOR REFERENCE has been checked , the result was represented in WP-2012

2. **Team-work with NEA DATA-BANK**

During 2011-2012 years 93 new and 11 old entries were compiled and included in O-library . These entries contain mainly differential data for elastic and inelastic scattering, fission and spallation cross sections.

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| TRANS | TRANS- Status | ENTRIES Total | ENTRIES NEW | ENTRIES Revised |
|-------------|------------------|------------------|----------------|--------------------|
| O044 | Final | 54 | 46 | 8 |
| O046 | Final | 50 | 47 | 3 |

3. Checking Codes and Exfor Editor.

CAJAD uses to input and check our TRANS and ENTRIES

- Exfor Editor (G.Pikulina, Sarov)
- CHEX (V.Zerkin, IAEA)
- CHECKER (N.Soppera, NEA DATA BANK)

4. Digitizing program

CAJAD uses Graph Digitizing System GSYS-2.4.0, created by Nuclear Reaction Data Centre (JCPRG) for digitizing plots

5. Future plans

- **Compilation of the new experimental CPND, measured in Russia and countries of former Soviet Union (except Ukraine),**
also compilation of experimental data on charged particle induced nuclear reactions (voluntary compilation -**Category B**) in coordination with **IAEA NDS.**