**Status Report of the Nuclear Data Project at McMaster University**
**(April 1998 – April 1999) (B. Singh)**

## ENSDF RELATED ACTIVITY:

Until December 1998, the McMaster group had permanent responsibility for the evaluation of A= 64, 98, 100, 149 and 151. Five more mass chains were added at the Vienna international meeting: A=89, 164, 188, 190, 194. The status of these mass chains in ENSDF is as follows, all published by the McMaster group, except where indicated.

**A=64,** NDS 78, 395-546 (1996).
**A=89,** NDS 85, 1-179 (1998) (*)
**A=98,** NDS 84, 565-716 (1998). (*)
**A=100,** NDS 81, 1-181 (1997).
**A=149** (Update), NDS 73, 351-556 (1994).
**A=151,** NDS 80, 263-565 (1997).
**A=164,** (Update) NDS 65, 365 (1992) (**)
**A=188,** NDS 59, 133 (1990): High-spin update in ENSDF in 1995.
**A=190,** NDS 61, 243 (1990): High-spin update in ENSDF in 1995.
**A=194,** NDS 79, 277 (1996)

(*): Published by the McMaster group since the 1998 US NDP meeting.
(**): Published by the Petersburg (Russia) group in 1992. It is currently being revised by the McMaster group.

## Other Mass-chain Evaluations published since 1998 US NDP meeting:

**A=44,** J.A. Cameron and B. Singh, NDS (Submitted April, 1999)
**A=135,** Y. Sergeenkov and B. Singh, NDS 84, 115-275 (1998).
**A=75,** A. Farhan and B. Singh, NDS (In Press for April 1999 NDS issue).
The revision includes two new high-spin papers on 75Se and 75Br
Published in recent (1999) issues of Phys Rev C.
**A=163,** B. Singh and A. Farhan, NDS (Submitted Dec 1998, in review stage).

**Review work**: **A=125** (in 1998)

**Mass chains in progress:**
**A=43-40** (Expected completion by April 2000)
**A=164 and A=130** (selected from August 98 priority list).

**Data for Superdeformed Bands:** Continuously being updated for new data. Next full

revision will be completed in June 1999.

**Other compilations/evaluations since 1998 US NDP meeting:**

**Magnetic-rotational bands:**

1. Magnetic Dipole Rotational Bands: A. Rastogi, A.K. Jain and B. Singh, Atomic Data and Nuclear Data Tables (Submitted April 1999).
2. Signature splitting in Magnetic Rotational Bands: Amita, A.K. Jain, A. Goel, and B. Singh, Pramana Journal of Physics (submitted January 1999)

**Compilation of data from recent publications:**

Compiled datasets, in ENSDF format, from about 170 recent (1995-1999) papers, primarily in the high-spin area were prepared and submitted to XUNDL database at BNL.

**Odd-odd nuclei:**

Update Supplement to Level Structures in Medium-Heavy Deformed Odd-Odd Nuclei: B. Singh, P.C. Sood and A.K. Jain, Atomic Data and Nucl. Data Tables, 69, 349-358 (1998).

**Log (*ft*) values:**

Review of Log(*ft*) values:
B. Singh, J.L. Rodriguez, S.S.M. Wong and J.K. Tuli, NDS 84, 487 (1998).