

Memo CP-D/220

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To: Distribution

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Subject: Structuring of dictionaries 18, 19, 21, 22, 23.

With some recent additions to the Exfor dictionaries for FACILITY, SOURCE OF INCIDENT PARTICLES, METHOD, DETECTORS and ANALYSIS, we feel that some structuring would be useful. After some research on the usage of the various codes in Exfor BIB sections we propose to group the codes within each dictionary according to type of experiment (see following pages). Corrections and suggestions for improvements by the other centers are most welcome and will be discussed at the forthcoming data centers meeting.

When browsing through the BIB sections we found some unusual examples which may need correction:

FACILITY (CHOPS) slow chopper: charged particle entry A0273

INC-SOURCE (POLNS) polarized neutron source: charged particle entry C0035

ANALYSIS (MLA) multilevel analysis: charged particle entry A0144

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DICTION 18 910715 FACILITY

GENERAL USE

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CCW (COCKCROFT-WALTON ACCELERATOR)
LINAC (LINEAR ACCELERATOR)
ICTR (INSULATED CORE TRANSFORMER ACCELERATOR)
VDG (VAN DE GRAAFF)
VDGT (TANDEM VAN DE GRAAFF)
CYGFF (CYCLOGRAAFF)
CYCLO (CYCLOTRON)
CYCTM (TANDEM CYCLOTRONS)
ISOCY (ISOCRONOUS CYCLOTRON) INCL. AVF-CYCLOTRON
SYNCY (SYNCHRO CYCLOTRON)
SYNCH (SYNCHROTRON)
BETAT (BETATRON)
MICRT (MICROTRON)
DYNAM (DYNAMITRON)
SPECM (MASS SPECTROMETER)
SPECD (DOUBLE MASS SPECTROMETER)
SPECC (CRYSTAL SPECTROMETER)
MESON (MESON FACILITY)
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NEUTRON REACTIONS ONLY

=====
REAC (REACTOR)
OSCIP (PILE OSCILLATOR)
CHOPF (FAST CHOPPER)
CHOPS (SLOW CHOPPER)
SELVE (VELOCITY SELECTOR)
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PHOTON REACTIONS ONLY

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ESTRG (ELECTRON STORAGE RING)
ENDDICTION 24
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DICTION 19 910715 SOURCE OF INCIDENT PARTICLES

NEUTRON REACTIONS ONLY

=====
PHOTO (PHOTO-NEUTRON)
POLNS (POLARIZED NEUTRON SOURCE)
P-D (PROTON-DEUTERIUM)
P-T (PROTON-TRITIUM)
P-BE (PROTON-BERYLLIUM)
P-LI7 (PROTON-LITHIUM 7)
D-D (DEUTERON-DEUTERIUM)
D-T (DEUTERON-TRITIUM)
D-LI (DEUTERON-LITHIUM)
D-LI7 (DEUTERON-LITHIUM 7)
D-BE (DEUTERON-BERYLLIUM)
D-C12 (DEUTERON-CARBON 12)
D-C14 (DEUTERON-CARBON 14)
D-N15 (DEUTERON-NITROGEN 15)
A-BE (ALPHA-BERYLLIUM)
PU240 (SPONT.FISS. PLUTONIUM-240)
CM244 (SPONT.FISS. CURIUM-244)
CM246 (SPONT.FISS. CURIUM-246)
CM248 (SPONT.FISS. CURIUM-248)
CF252 (SPONT.FISS. CALIFORNIUM-252)
EXPLO (NUCL.EXPLOSIVE DEVICE)
EVAP (EVAPORATION NEUTRONS)
REAC (REACTOR)
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THCOL (THERMAL COLUMN)
POLTR (POLARIZED TARGET)

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PHOTON REACTIONS ONLY

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ATOMI (ATOMIC BEAM SOURCE)
LAMB (LAMB-SHIFT SOURCE)
BRST (BREMSSTRAHLUNG)
MPH (MONOENERGETIC PHOTONS)
MPH= (MONOENERGETIC PHOTON REACTION =)
QMPH (QUASI-MONOENERGETIC PHOTONS)
VPH (VIRTUAL PHOTONS)
ARAD (ANNIHILATION RADIATION)
COMPT (COMPTON SCATTERING)
HARD (HARDENED)
KINDT (KINEMATICALLY DETERMINED)
LASER (LASER SCATTERING)
TAGD (ELECTRON TAGGED)
THRDT (DETERMINED BY THRESHOLD TECHNIQUE)
ENDDICTION 39

DICTION 21 910715 METHOD

GENERAL USE

=====

COINC (COINCIDENCE)
PHD (PULSE-HEIGHT DISCRIMINATION)
PSD (PULSE-SHAPE DISCRIMINATION)
ACTIV (ACTIVATION)
ASSOP (ASSOCIATED PARTICLE)
MAGFR (MAGNETIC FIELD ROTATION)
TOF (TIME-OF-FLIGHT)
PLSED (PULSE DIE-AWAY)
REC (COLLECTION OF RECOILS)
HEJET (COLLECTION BY HE-JET)
CHSEP (CHEMICAL SEPARATION)
ASEP (SEPARATION BY MASS-SEPARATOR)
SITA (SINGLE TARGET IRRADIATION)
STTA (STACKED TARGET IRRADIATION)
MOSEP (SEPARATE MONITOR-FOIL)
MOMIX (MIXED MONITOR) MONITOR AND TARGET COMBINED AS CHEMICAL
COMPOUND OR MIXTURE, OR MONITOR REACTION HAS THE SAME
TARGET NUCLIDE AS THE REACTION GIVEN UNDER 'REACTION'
EDE (PARTICLE IDENTIFICATION BY 'E/DELTA E' MEASUREMENT)
EDEG (ENERGY-DEGRADATION BY FOLDS) THE PROJECTILE ENERGY WAS
CONSIDERABLY DEGRADED BEFORE HITTING THE TARGET. THE
INITIAL PROJECTILE ENERGY AND THE REFERENCE OF THE
ENERGY LOSS RELATION USED SHOULD BE STATED.
INTB (IRRADIATION WITH INTERNAL BEAM)
EXTB (IRRADIATION WITH EXTERNAL BEAM)
BCINT (BEAM CURRENT INTEGRATED) CODE USED ONLY IF VALUES
GIVEN IN THE DATA SECTION ARE BASED ON THIS MEASUREMENT

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NEUTRON REACTIONS ONLY

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CADMB (CADMIUM BATH)
MANGB (MANGANESE BATH)
DIFFR (DIFFRACTION)
REFL (TOTAL REFLECTION FROM MIRRORS)
REAC (REACTIVITY MEASUREMENT)
SLODT (SLOWING-DOWN-TIME)
BURN (BURN-UP)
CHRFL (CHRISTIANSEN FILTER)
SHELT (SHELL TRANSMISSION)

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FISSION YIELDS, EXPLICITLY

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ABSFY      (ABSOLUTE FISSION YIELD MEASUREMENT)
           I.E. NOT RELATIVE TO ANOTHER FISSION YIELD, THOUGH
           MAY BE RELATIVE TO A MONITOR CROSS SECTION
RELFY      (RELATIVE FISSION YIELD MEASUREMENT)
           I.E. RELATIVE TO ANOTHER FISSION YIELD VALUE
RVAL       (R-VALUE MEASUREMENT) SEE LEXFOR UNDER FISSION YIELDS
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THE FOLLOWING CODES WERE INTRODUCED FOR FISSION YIELDS
WITHOUT REFERRING TO THEM EXPLICITLY

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FISCT      (ABSOLUTE FISSION COUNTING) OF THE TOTAL NUMBER OF
           FISSIONS WITH A DETECTOR TO BE SPECIFIED
HADT       (HEAVY ATOM DIFFERENCE TECHNIQUE) BY MASS SPECTROMETRY
FLUX       (N-FLUX MONITORING) BY A REACTION TO BE CODED UNDER
           MONITOR
OLMS       (ON-LINE MASS SEPARATION)
RCHEM      (RADIOCHEMICAL SEPARATION)
FPGAM      (DIRECT GAMMA-RAY SPECTROMETRY) OF UNSEPARATED
           FISSION PRODUCTS
GSPEC      (GAMMA RAY SPECTROMETRY)
BSPEC      (BETA RAY SPECTROMETRY)
BGCT       (BETA-GAMMA COINCIDENCE TECHNIQUE)
HATOM      (HOT ATOM METHOD)
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PHOTON REACTIONS ONLY

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RINGR      (RING RATIO METHOD)
STATD      (STATISTICALLY DETERMINED)
ENDDICTION 57
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DICTION    22      910715 DETECTORS
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GENERAL USE
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TELES      (COUNTER TELESCOPE) DETECTORS USED MAY FOLLOW IN THE
           FORM (TELES,DET1,DET2). OTHER DETECTORS USED MUST NOT
           BE CODED WITHIN THE SAME PARENTHESIS BUT MUST BE CODED
           IN A SEPARATE LINE
COIN       (COINCIDENCE COUNTER ARRANGEMENT) DETECTORS USED IN
           COINCIDENCE FOLLOW IN THE FORM (COIN,DET1,DET2). OTHER
           DETECTORS MUST NOT BE CODED WITHIN THE SAME PARENTHESSES
           BUT MUST BE CODED IN A SEPARATE LINE
GLASD      (GLASS DETECTOR)
TRD        (TRACK DETECTOR) ALL WHICH ARE NOT GLASS
SOLST      (SOLID-STATE DETECTOR)
THRES      (THRESHOLD DETECTOR)
SCIN       (SCINTILLATION DETECTOR)
STANK      (SCINTILLATOR TANK)
MTANK      (MODERATING TANK DETECTOR)
CSICR      (CESIUM-IODIDE CRYSTAL)
NAICR      (SODIUM-IODIDE CRYSTAL)
PROPC      (PROPORTIONAL COUNTER)
MAGSP      (MAGNETIC SPECTROMETER) OR SPECTOGRAPH
PLATE      (NUCLEAR PLATES)
PSSSD      (POSITION SENSITIVE SOLID STATE DETECTOR)
SWPC       (POSITION SENSITIVE SINGLE-WIRE PROPORTIONAL COUNTER)
MWPC       (POSITION SENSITIVE MULTI-WIRE PROPORTIONAL COUNTER)
PSSCN      (POSITION SENSITIVE SCINTILLATOR)
GEMUC      (GEIGER-MUELLER COUNTER)
IOCH       (IONIZATION CHAMBER)
D4PI       (4PI-DETECTOR)
FISCH      (FISSION CHAMBER)
CEREN      (CERENKOV DETECTOR)
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GAMMA DETECTORS

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GELI (GERMANIUM-LITHIUM DETECTOR)
GE-IN (GERMANIUM INTRINSIC DETECTOR)
HPGE (HYPERPURE GERMANIUM DETECTOR)
MOXR (MOXON-RAE DETECTOR)
BPAIR (ELECTRON-PAIR SPECTROMETER) FOR GAMMAS

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NEUTRON DETECTORS

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HORBU (HORNYAK BUTTON DETECTOR)
LONGC (LONG COUNTER)
BF3 (BORON TRIFLUORIDE NEUTRON DETECTOR)
HE3SP (HE-3 SPECTROMETER)
ENDDICTION 38

DICTION 23 910715 ANALYSIS

GENERAL USE

=====

INTAD (INTEGRATION OF ANGULAR DISTRIBUTION)
INTED (INTEGRATION OF ENERGY DISTRIBUTION)
AREA (AREA ANALYSIS)
SHAPE (SHAPE ANALYSIS)
4PI1A (4PI TIMES DIFFERENTIAL CROSS-SECTION AT ONE ANGLE)
CORAB (CORRECTION ON ISOTOPIC ABUNDANCE)
SLA (SINGLE LEVEL ANALYSIS)
MLA (MULTILEVEL ANALYSIS)
RFN (R-FUNCTION FORMALISM)
DECAY (DECAY CURVE ANALYSIS)

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PHOTONUCLEAR DATA ONLY

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DIFFR (DIFFERENCE SPECTRUM)
DTBAL (DETAILED BALANCE) FOR ANALYSIS OF INVERSE REACTIONS
LEAST (LEAST STRUCTURE METHOD)
PHDIF (PHOTON DIFFERENCE)
PLA (PENFOLD-LEISS METHOD)
REDUC (REDUCTION METHOD)
REGUL (REGULARIZATION METHOD)
THIES (THIES'S METHOD)
UNFLD (UNFOLDING PROCEDURE)
ENDDICTION 19