

**MEMO CP-A/108**

21 Jan 2001

To: **Distribution**  
From: **F.E. Chukreev, S.Babykina**  
Subject: **Additions to Dictionaries**

**Add to dictionary 36**

,MLT,P YLD (Proton multiplicity)  
,MLT,PIP YLD (Positive pion multiplicity)  
,MLT,PIN YLD (Negative pion multiplicity)

The additional is needed to compile ZP/A,340,325,1991

SPL,AKE E (Average kinetic energy of energy of spallation products)

**Add to dictionary 24**

PART-OUT Number of Emitted Particles.  
Particle must be specified in PART-DET.

The additional is needed to compile ZP/A,340,325,1991. See Fig.1

**Add to dictionary 27**

The list contains reaction products, which were investigated on Fragment Separator of GSI. The products can be used as beam, target (in reverse geometry) etc.

17-CL-41 (1234 )  
17-CL-42 (1234 )  
17-CL-43 (1234 )  
23-V-55 (1234 )  
24-CR-57 (1234 )  
25-MN-59 (1234 )  
25-MN-60 (1234 )  
26-FE-62 (1234 )  
27-CO-65 (1234 )  
29-CU-71 (1234 )  
35-BR-70 (1234 )  
51-SB-111 (1234 )  
52-TE-114 (1234 )  
53-I-116 (1234 )  
53-I-117 (1234 )  
53-I-142 (1234 )

61-PM-132 (1234 )  
61-PM-133 (1234 )  
61-PM-134 (1234 )  
61-PM-135 (1234 )  
61-PM-136 (1234 )  
61-PM-137 (1234 )  
61-PM-138 (1234 )  
61-PM-139 (1234 )  
62-SM-135 (1234 )  
62-SM-136 (1234 )  
62-SM-137 (1234 )  
62-SM-138 (1234 )  
62-SM-139 (1234 )  
63-EU-138 (1234 )  
63-EU-139 (1234 )  
63-EU-140 (1234 )  
63-EU-141 (1234 )  
64-GD-139 (1234 )  
64-GD-140 (1234 )  
64-GD-141 (1234 )  
64-GD-142 (1234 )  
64-GD-143 (1234 )  
65-TB-142 (1234 )  
65-TB-143 (1234 )  
65-TB-144 (1234 )  
65-TB-145 (1234 )  
66-DY-144 (1234 )  
66-DY-145 (1234 )  
67-HO-146 (1234 )  
67-HO-147 (1234 )  
67-HO-148 (1234 )  
68-ER-148 (1234 )  
68-ER-149 (1234 )  
70-YB-153 (1234 )  
70-YB-156 (1234 )  
70-YB-157 (1234 )  
70-YB-158 (1234 )  
70-YB-159 (1234 )  
70-YB-160 (1234 )  
70-YB-161 (1234 )  
70-YB-162 (1234 )  
70-YB-163 (1234 )  
70-YB-164 (1234 )  
71-LU-156 (1234 )  
71-LU-157 (1234 )  
71-LU-158 (1234 )  
71-LU-159 (1234 )  
71-LU-160 (1234 )  
71-LU-161 (1234 )  
71-LU-162 (1234 )  
71-LU-163 (1234 )  
71-LU-164 (1234 )  
71-LU-165 (1234 )

71-LU-166 (1234 )  
72-HF-169 (1234 )  
73-TA-160 (1234 )  
73-TA-161 (1234 )  
73-TA-162 (1234 )  
73-TA-163 (1234 )  
73-TA-164 (1234 )  
73-TA-165 (1234 )  
73-TA-166 (1234 )  
73-TA-167 (1234 )  
73-TA-168 (1234 )  
73-TA-169 (1234 )  
73-TA-170 (1234 )  
73-TA-171 (1234 )  
73-TA-172 (1234 )  
74-W-165 (1234 )  
74-W-166 (1234 )  
74-W-167 (1234 )  
74-W-168 (1234 )  
74-W-169 (1234 )  
74-W-170 (1234 )  
74-W-171 (1234 )  
74-W-173 (1234 )  
74-W-175 (1234 )  
75-RE-165 (1234 )  
75-RE-166 (1234 )  
75-RE-167 (1234 )  
75-RE-170 (1234 )  
75-RE-171 (1234 )  
75-RE-172 (1234 )  
75-RE-173 (1234 )  
75-RE-174 (1234 )  
75-RE-175 (1234 )  
75-RE-176 (1234 )  
76-OS-172 (1234 )  
76-OS-173 (1234 )  
76-OS-174 (1234 )  
76-OS-175 (1234 )  
76-OS-176 (1234 )  
76-OS-177 (1234 )  
76-OS-179 (1234 )  
76-OS-181 (1234 )  
77-IR-172 (1234 )  
77-IR-173 (1234 )  
77-IR-174 (1234 )  
77-IR-175 (1234 )  
77-IR-176 (1234 )  
77-IR-177 (1234 )  
77-IR-178 (1234 )  
77-IR-179 (1234 )  
77-IR-180 (1234 )  
77-IR-181 (1234 )  
77-IR-182 (1234 )

77-IR-183 (1234 )  
78-PT-173 (1234 )  
78-PT-174 (1234 )  
78-PT-175 (1234 )  
78-PT-176 (1234 )  
78-PT-177 (1234 )  
78-PT-178 (1234 )  
78-PT-179 (1234 )  
78-PT-180 (1234 )  
78-PT-181 (1234 )  
78-PT-182 (1234 )  
78-PT-183 (1234 )  
78-PT-184 (1234 )  
78-PT-185 (1234 )  
78-PT-187 (1234 )  
79-AU-177 (1234 )  
79-AU-178 (1234 )  
79-AU-179 (1234 )  
79-AU-181 (1234 )  
79-AU-183 (1234 )  
79-AU-185 (1234 )  
79-AU-187 (1234 )  
82-PB-187 (1234 )  
82-PB-188 (1234 )  
82-PB-189 (1234 )  
82-PB-190 (1234 )  
82-PB-191 (1234 )  
82-PB-192 (1234 )  
82-PB-193 (1234 )  
85-AT-201 (1234 )  
85-AT-202 (1234 )

Code of second isomer must be added

49-IN-122 ( 34 2)

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