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The **SaBa** database is a program product including the library of evaluated and experimental data itself as well as a set of procedures making it possible to perform the sufficient processing of data. Currently there are presented in the base the data on 83 reactions:

1. 1-H-2(D,G)2-HE-4
2. 1-H-2(D,N)2-HE-3
3. 1-H-2(D,N+P)1-H-2
4. 1-H-2(D,P)1-H-3
5. 1-H-2(P,G)2-HE-3
6. 1-H-2(P,N+P)1-H-1
7. 1-H-3(D,G)2-HE-5
8. 1-H-3(D,N)2-HE-4
9. 1-H-3(D,X)
10. 1-H-3(HE-3,G)3-LI-6
11. 1-H-3(HE-3,X)
12. 1-H-3(P,G)2-HE-4
13. 1-H-3(P,N)2-HE-3
14. 1-H-3(T,2N)2-HE-4
15. 2-HE-3(D,G)3-LI-5
16. 2-HE-3(D,N+P)2-HE-3
17. 2-HE-3(D,P)2-HE-4
18. 2-HE-3(HE-3,2P)2-HE-4
19. 2-HE-3(HE-3,G)4-BE-6
20. 2-HE-3(T,D)2-HE-4
21. 2-HE-4(D,G)3-LI-6
22. 2-HE-4(HE-3,G)4-BE-7
23. 2-HE-4(T,G)3-LI-7
24. 3-LI-6(D,A)2-HE-4
25. 3-LI-6(D,N)4-BE-7
26. 3-LI-6(D,P)3-LI-7
27. 3-LI-6(D,P+T)2-HE-4
28. 3-LI-6(HE-3,D)4-BE-7
29. 3-LI-6(HE-3,N)5-B-8
30. 3-LI-6(HE-3,P)4-BE-8
31. 3-LI-6(P,A)2-HE-3
32. 3-LI-6(P,G)4-BE-7
33. 3-LI-6(P,X)

34. 3-LI-6(T,D)3-LI-7
35. 3-LI-6(T,2N)4-BE-7
36. 3-LI-6(T,P)3-LI-8
37. 3-LI-6(T,X)
38. 3-LI-7(A,N)5-B-10
39. 3-LI-7(D,P)3-LI-8
40. 3-LI-7(D,T)3-LI-6
41. 3-LI-7(D,X)
42. 3-LI-7(HE-3,A)3-LI-6
43. 3-LI-7(HE-3,D)4-BE-8
44. 3-LI-7(HE-3,P)4-BE-9
45. 3-LI-7(HE-3,T)4-BE-7
46. 3-LI-7(P,A)2-HE-4
47. 3-LI-7(P,G)4-BE-8
48. 3-LI-7(T,A)2-HE-6
49. 3-LI-7(T,D)3-LI-8
50. 3-LI-7(T,P)3-LI-9
51. 3-LI-7(T,X)
52. 4-BE-9(A,N)6-C-12
53. 4-BE-9(D,A)3-LI-7
54. 4-BE-9(D,G)5-B-11
55. 4-BE-9(D,N)5-B-10
56. 4-BE-9(D,P)4-BE-10
57. 4-BE-9(D,T)4-BE-8
58. 4-BE-9(D,X)
59. 4-BE-9(HE-3,P)5-B-11
60. 4-BE-9(HE-3,X)
61. 4-BE-9(P,A)3-LI-6
62. 4-BE-9(P,D)4-BE-8
63. 4-BE-9(P,G)5-B-10
64. 4-BE-9(P,N)5-B-9
65. 4-BE-9(P,X)
66. 4-BE-9(T,N)5-B-11
67. 5-B-10(D,A)4-BE-8
68. 5-B-10(D,N)6-C-11
69. 5-B-10(D,P)5-B-11
70. 5-B-10(P,A)4-BE-7
71. 5-B-10(P,G)6-C-11
72. 5-B-11(A,G)7-N-15
73. 5-B-11(A,P)6-C-14
74. 5-B-11(D,A)4-BE-9
75. 5-B-11(D,G)6-C-13
76. 5-B-11(D,N)6-C-12
77. 5-B-11(D,P)5-B-12
78. 5-B-11(P,A)4-BE-8
79. 5-B-11(P,G)6-C-12

80. 5-B-11(P,N)6-C-11
81. 6-C-12(P,G)7-N-13
82. 6-C-13(P,G)7-N-14
83. 7-N-14(P,G)8-O-15

The possibility of getting our own evaluated data along with presenting complete reference information on the specific isotope and every reaction under study makes it possible to consider the given program product as an efficient enough instrument applied to prepare and use the data in
different thermonuclear applications.

Moreover, available analytical presentation for the evaluated curve makes convenient adaptation of presented data for the using in the other software products. Just for this purpose there was chosen a polynomial presentation for approximation of excitation functions (cubic splines). It
allows to combine the evaluated curves with other descriptions presented in the analytical form.

Theoretical models are used in cases when the experimental data don't allow to define univocally a shape of the excitation function for cross-sections of some reactions. The spline is built according to the theoretical curve normalized by weight-average experimental values.

When the experimental material does not allow to uniquelycharacterize the relative course of initiation function for the cross-section of this or that reaction, to the estimation there are applied
theoretical calculations on the models, and the spline is constructed on the basis of the theoretical curve normalized by weighted mean experimental values.

In the SaBa database along with presenting the data in the form of cross-sections there are widely used their presentation in the form of S-factor. The possibility of S-factor easy extrapolation in future to the sphere of low energies is of additional interest as to the use of the obtained data to for the needs of astrophysics and other nuclear applications.

The SaBa database presents the user the following possibilities.

1. Getting the information on isotopes and reactions. The given mode makes it possible for the user to get reference data associated with the selected isotope and reaction. The data on the isotope includes the list of physics and chemical properties. The data on the reaction includes its description as well as the information on the sources of experimental data.

2. Output of the list of all reactions. This possibility (output of the list of reactions under study to the display and printer as well as its writing to file) makes it more convenient for the user to work with the base.

3. Review and output of tables and plots. This mode is intended to work with evaluated and experimental data. The data are, as an option, presented both in tables and plots. There exists the possibility of performing comparative analysis of available data with the data from ECPL library. The availability of data editing means makes it possible to effectively arrange the process of preparation and creation of materials for scientific reports and articles.

4. Creation of files in ENDF format. In this case the user has the possibility of writing the available newly obtained evaluated data in ENDF/B-VI format that is widely used for evaluated data exchange.

5. Editing and evaluating of data. The given mode makes it possible for the user to edit the experimental data, to enter the spline from the file, to delete data sets and to create his own evaluated curve - i.e. to construct a new spline. The developed graphic interface considerably simplifies and accelerates the work with the data at this stage. The database of evaluated and experimental data on charged particles SaBa is first oriented to scientific associates specialized in getting nuclear data for the needs of thermonuclear engineering, astrophysics, medicine. It can also be useful for the scientists occupied with the researches in the field of nucleear physics.

Further development of SaBa database is provided. It is assumed that a set of nuclei under study will be expanded to oxygen inclusive. It is planned to complete some evaluated data with the calculations in nuclear physics models so that the extrapolation to the range of low energies is implemented. It is planned to introduce into the base the data on nuclear reactions rates, whose values will be presented in the form of two-dimensional splines. There will be continued the works on performing comparative analysis between evaluated data from SaBa and the data from other libraries.

The users will be presented the possibility of creating and storing its own databases with the evaluations obtained in the course of activities.