

MEASUREMENTS OF PRODUCT YIELDS FROM FISSION REACTIONS INDUCED BY HIGH-ENERGY NEUTRONS, PROTONS, DEUTERONS, ALPHA PARTICLES, OTHER CHARGED PARTICLES AND PHOTONS – COLLECTION OF REFERENCES

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A compilation of references is presented for fission reactions induced by neutrons, protons, deuterons, alpha particles, ^3He -ions, some heavier charged particles and photons. The energy ranges for the collected references are for neutrons from essentially 14 MeV up to 1 GeV. For charged particles, the energy range is from the coulomb barrier up to a few hundred MeV. For photon-induced fission, the energy range (endpoint of Bremsstrahlung) is from the fission barrier up to about 100 MeV.

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In order to facilitate the use of this listing, a grouping has been made according to the species that induces fission. Furthermore, within each type of fission reaction, a differentiation is made according to the type of fission yields obtained (mass yields or independent yields of single nuclides, yields of single isomeric states, yields of neutrons (prompt and delayed), and yields of light charged particles (ternary fission)).

The listing is based on a small data bank that will be made available to interested users on request to the author. This data bank contains a collection of the original publications, along with more information than the present listing; for instance in many cases, the database contains the abstracts of the respective papers. Interrogation of the data bank is based on a program available commercially, and access can only be achieved after installation of this program (EndNote 2 by Niles & Associates, Inc., 800 Jones Street, CA 94710, USA, Internet: info@niles.com).

Citations:

1. Neutron-induced fission (14 MeV to 1 GeV):

- a) Mass Distribution: [1 – 13]
- b) Nuclear Charge Distribution: [1, 7, 9, 14]
- c) Isomeric yields: [15, 16]
- d) Prompt or delayed neutron emission: (no reference found)
- e) Emission of light charged particles: (no reference found)

2. Proton-induced fission

- a) Mass Distribution: [12, 17 – 79]
- b) Nuclear Charge Distribution: [18, 24, 26, 28, 29, 32 – 34, 45 – 47, 49, 51 – 54, 62, 67, 75, 79 – 102]
- c) Isomeric yields: [103 – 109]
- d) Prompt or delayed neutron emission: [24, 32, 48, 75, 79, 82, 85, 110, 111]
- e) Emission of light charged particles: [112 – 114]

3. Deuteron-induced fission

- a) Mass distribution: [23, 45, 68, 115 – 117]
- b) Nuclear charge distribution: [45, 118, 119]
- c) Isomeric yields: [16]
- d) Prompt or delayed neutron emission: [116]
- e) Emission of light charged particles: (no references found)

4. Helium-3-induced fission

- a) Mass distribution: [20, 23, 38, 78, 120 – 122]
- b) Nuclear charge distribution: [123]
- c) Isomeric yields: (no references found)
- d) Prompt or delayed neutron emission: (no references found)
- e) Emission of light charged particles: (no references found)

5. Alpha-particle-induced fission

- a) Mass distribution: [2, 35 – 38, 45, 78, 122, 124 – 142]
- b) Nuclear charge distribution: [45, 123, 136, 143, 144]
- c) Isomeric yields: [15, 145 – 150]
- d) Prompt or delayed neutron emission: [145]
- e) Emission of light charged particles: [137]

6. Fission induced by some other charged particles

- a) Mass distribution: [18, 23, 26, 39-42, 48, 49, 51 – 54, 63, 66, 79]
- b) Nuclear charge distribution: [18, 26, 49, 51 – 54, 79, 97, 100, 102]
- c) Isomeric yields: [108]
- d) Prompt or delayed neutron emission: [48, 79]
- e) Emission of light charged particles: [112, 113]

7. Photon-induced fission

- a) Mass distribution: [151 – 161]
- b) Nuclear charge distribution: [151, 153 – 157, 162 – 168]
- c) Isomeric yields: [151, 152, 169 – 171]
- d) Prompt or delayed neutron emission: [159, 172]
- e) Emission of light charged particles: [173, 174]

8. Fission in inverse kinematics: [175 – 185]

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