

# Japan Charged Particle Reaction Data Group

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## Memo CP-E/004

**Date:** December 10, 2001  
**To:** Distribution  
**From:** KATO Kiyoshi  
**Subject:** Spin-flip and non-spin-flip data

Our group compiled some data for spin-flip and non-spin-flip excitation energy spectra of  ${}^6\text{He}({}^7\text{Li}, {}^7\text{Be}){}^6\text{He}$  (S.Nakayama *et al.*, Phys.Rev.Lett. **85** (2000) 262) and of  ${}^6\text{Li}({}^7\text{Li}, {}^7\text{Be}){}^6\text{He}$  and  ${}^7\text{Li}({}^7\text{Li}, {}^7\text{Be}){}^7\text{He}$  (S.Nakayama *et al.*, Phys.Rev.Lett. **87** (2001) 122502). We propose to add a new modifier for non-spin-flip reactions and some quantity codes. The spectra in the first paper are plotted as functions of the excitation energy of  ${}^6\text{He}$  for a fixed angle of  ${}^7\text{Be}$ . Therefore, the quantity codes, which specify two nuclei, are also needed.

Our proposal is as follows:

### Dictionary 34 (Modifiers)

NSF

Non-spin-flip

### Dictionary 36 (Quantities)

, DA, , SF

Spin-flip diff. c/s d/dA

, DA, , NSF

Non-spin-flip diff. c/s d/dA

, DA/DE, , SF

Spin-flip double-diff. c/s d<sup>2</sup>/dA/dE

, DA/DE, , NSF

Non-spin-flip double-diff. c/s d<sup>2</sup>/dA/dE

, DA/DE, 4-BE-7/2-HE-6, SF

Spin-flip double-diff. c/s d<sup>2</sup>/dA(7Be)/dE(6He)

, DA/DE, 4-BE-7/2-HE-6, NSF

Non-spin-flip double-diff. c/s  
d<sup>2</sup>/dA(7Be)/dE(6He)

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