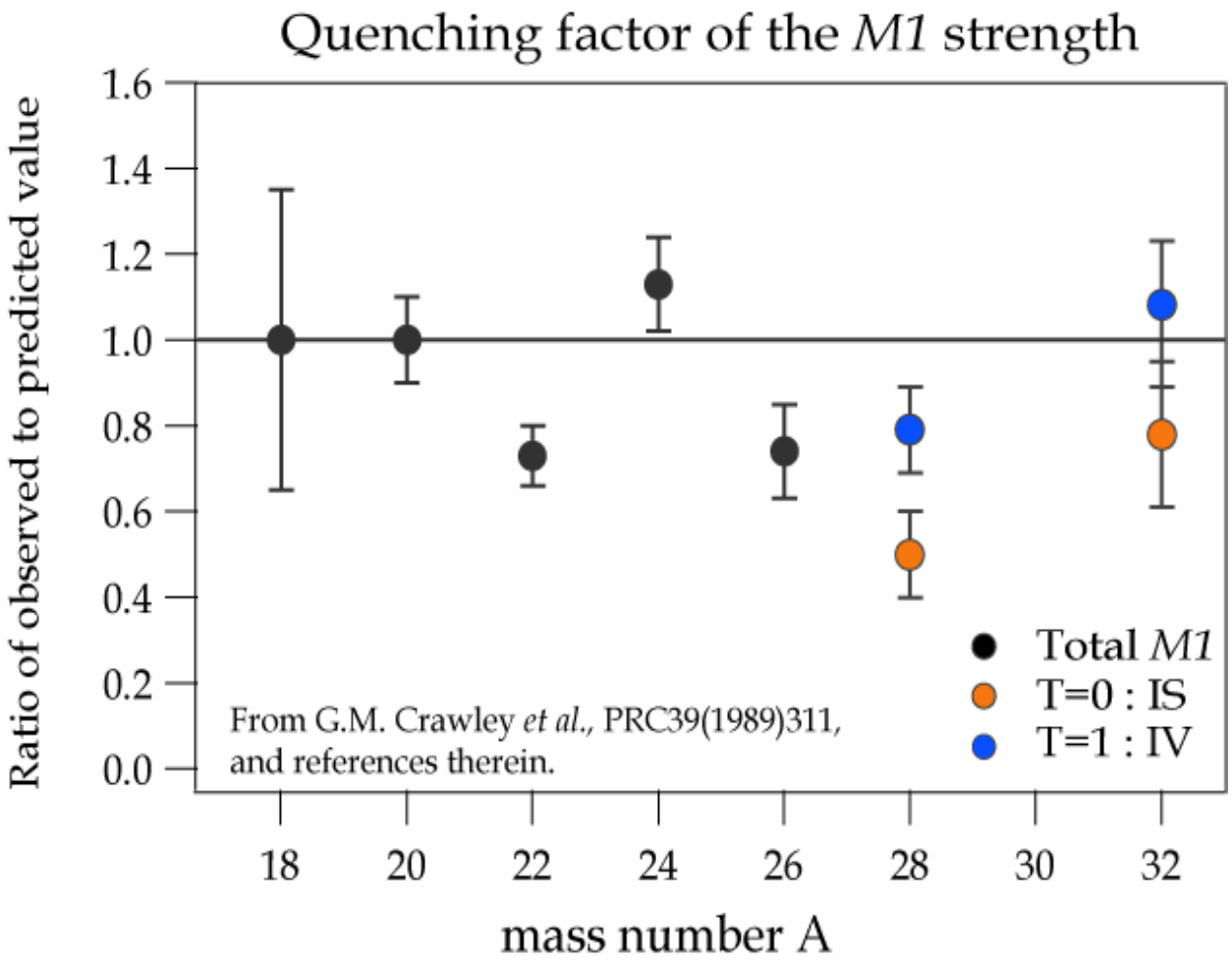
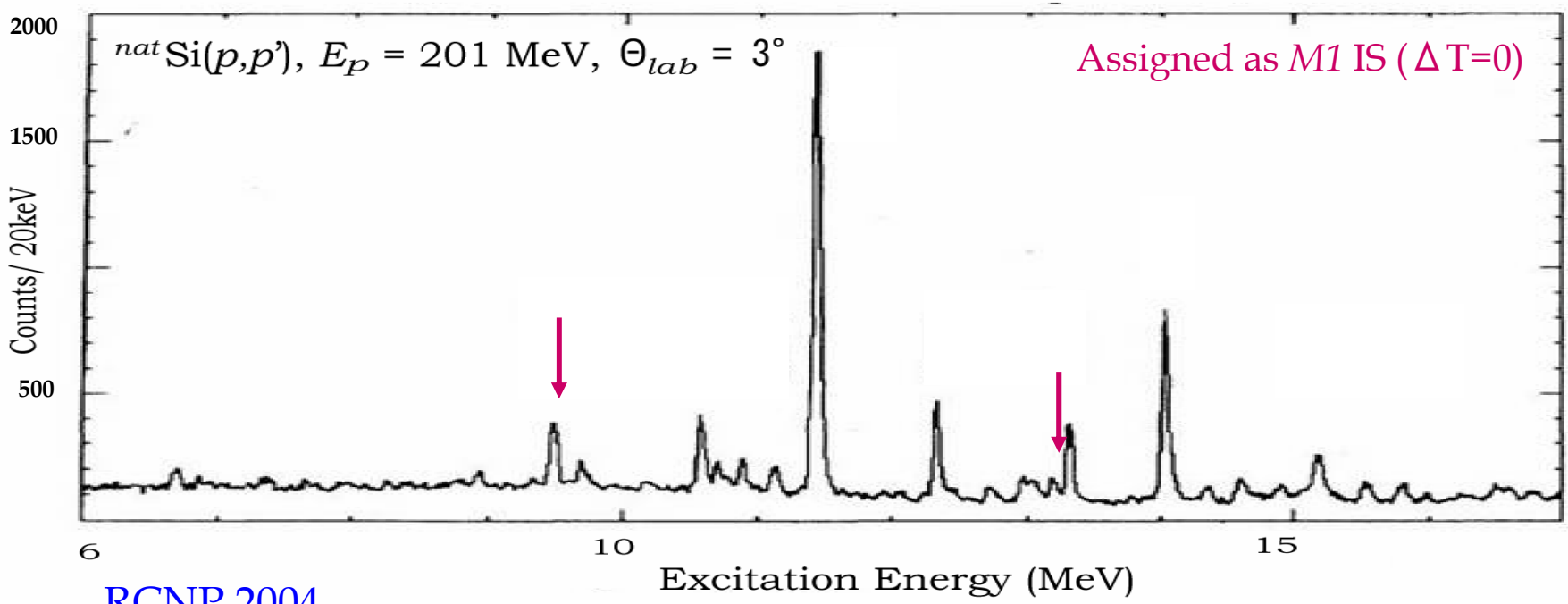


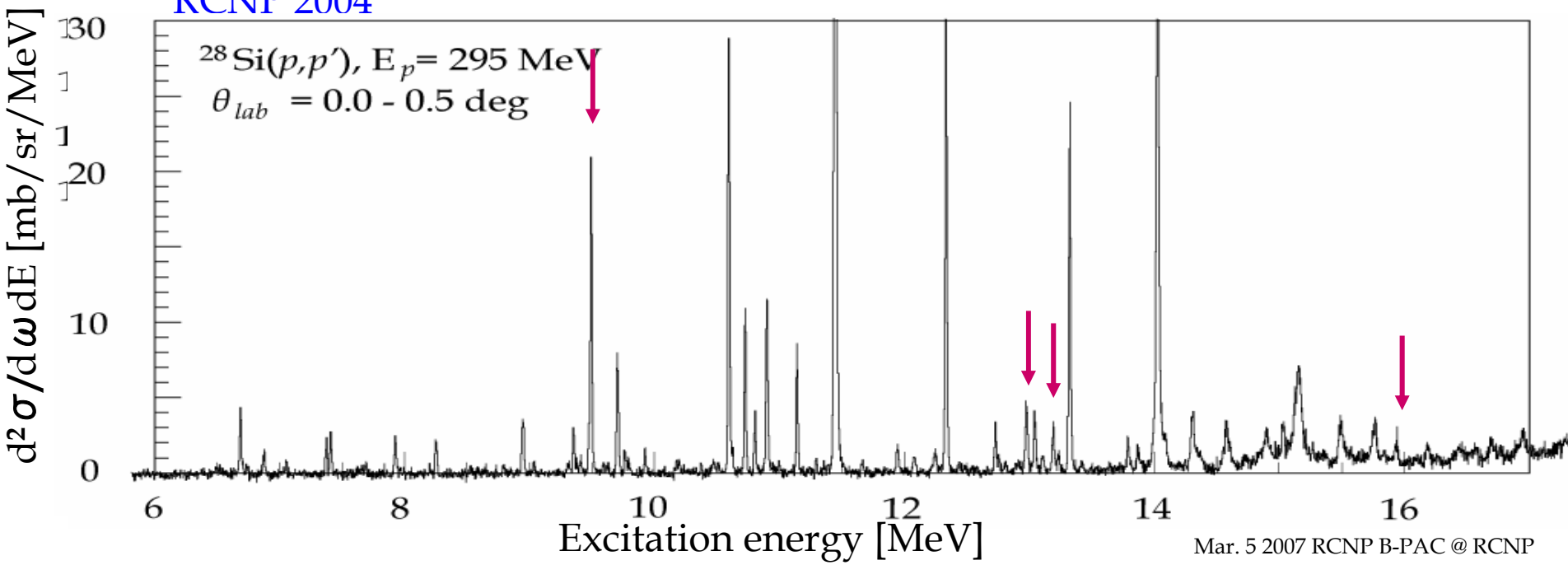

Mass 18 : O
20,22 : Ne
24,26 : Mg
28 : Si
32 : S

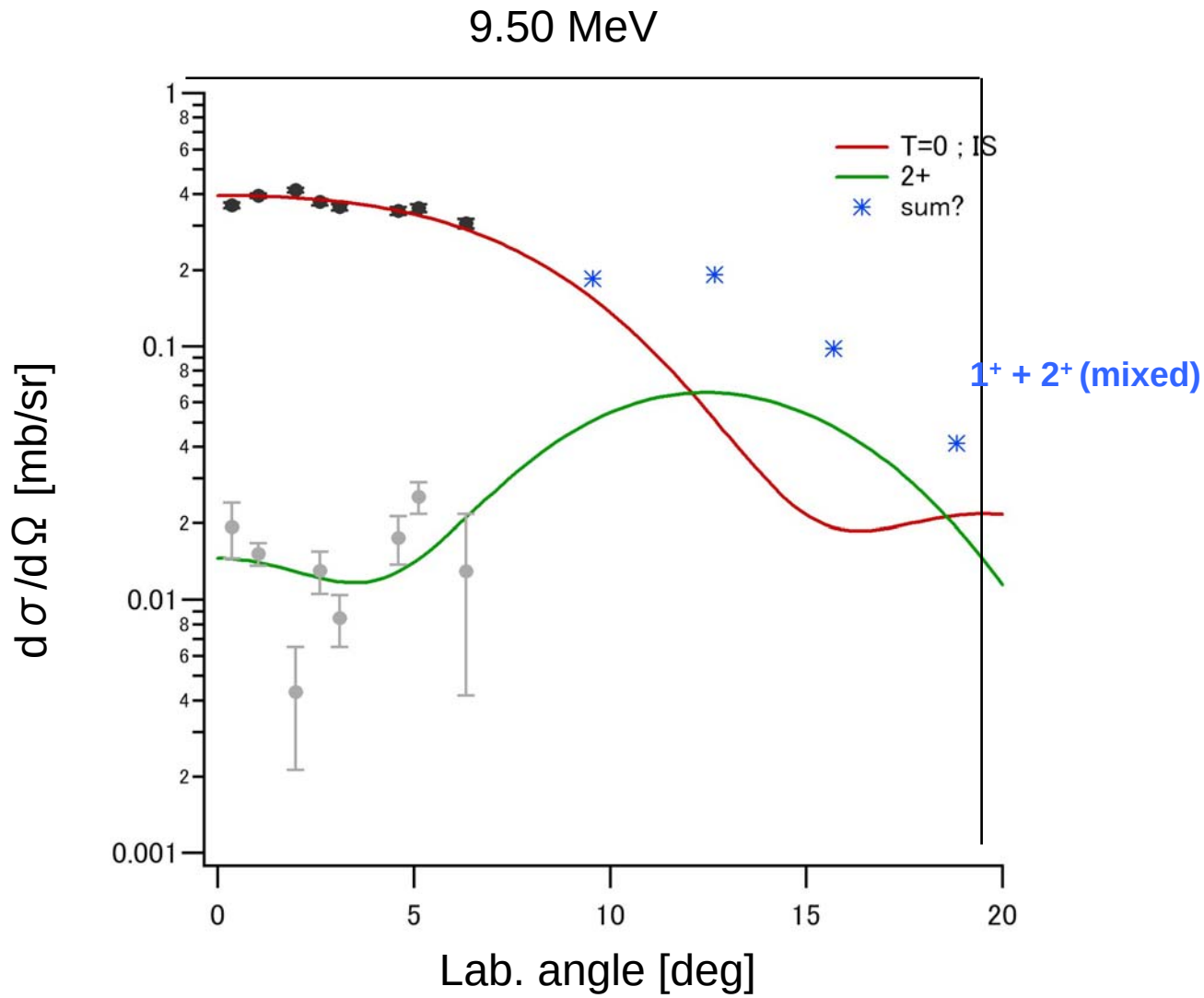
G.M. Crawley et al, PRC39(1989)311, at Orsay

図2



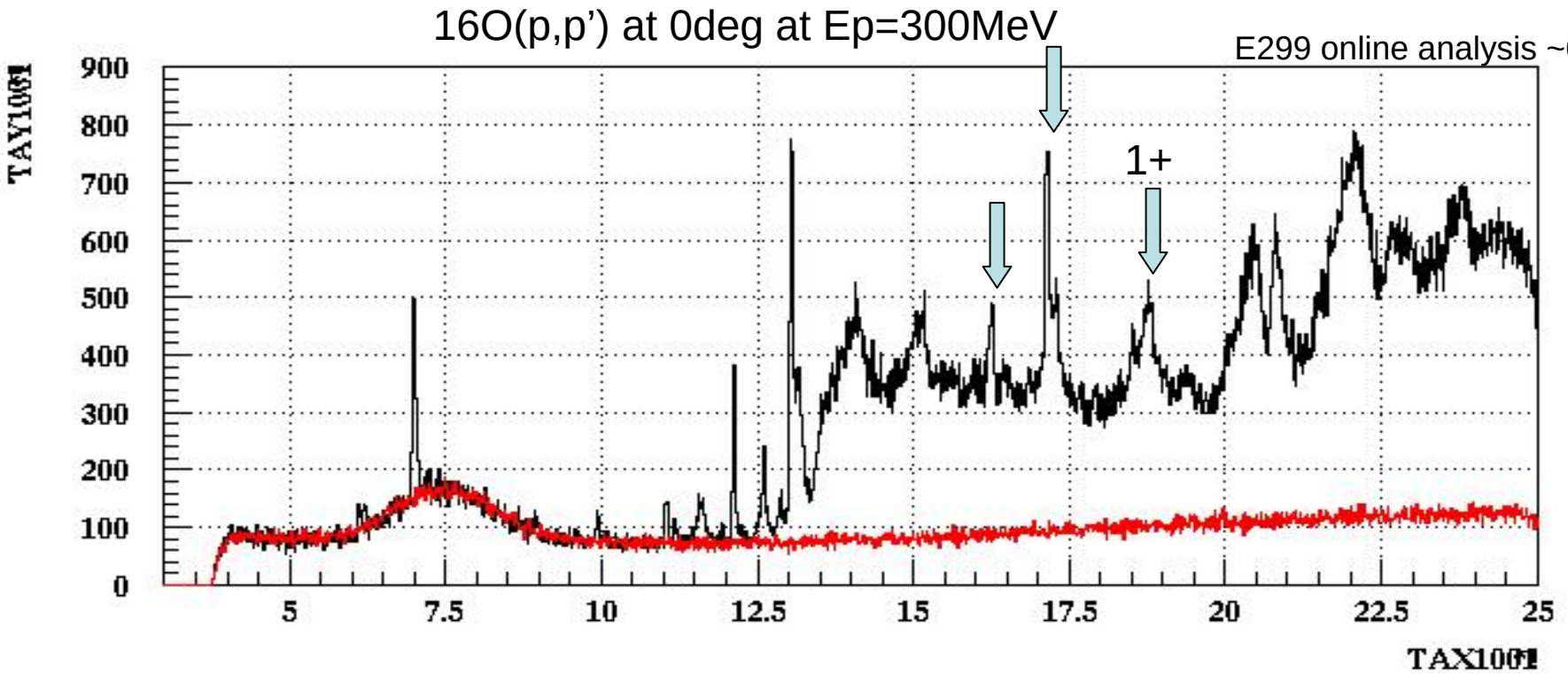

RCNP 2004






Angular distribution of 1+ isoscalar of 28Si at Ex = 9.50 MeV.
An interesting result of a flutter curve of IS can be seen.
(2+ peak has not been decomposed. )

図4



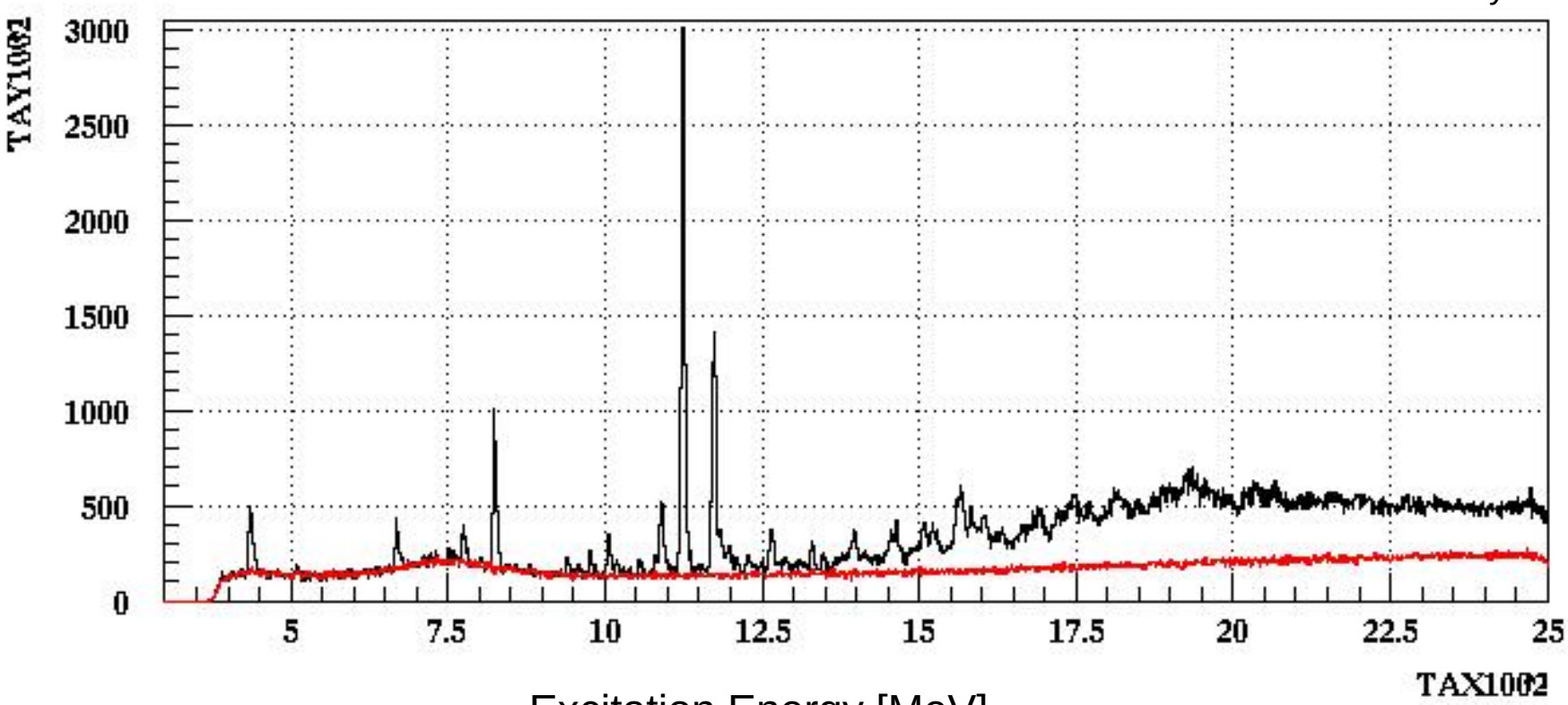

Excitation Energy [MeV]

Ice sheet $H_20$ (self-supporting) was used.

~10mg/cm^2

32S(p,p') at 0deg at Ep=300MeV

E299 online analysis ~75min




Excitation Energy [MeV]

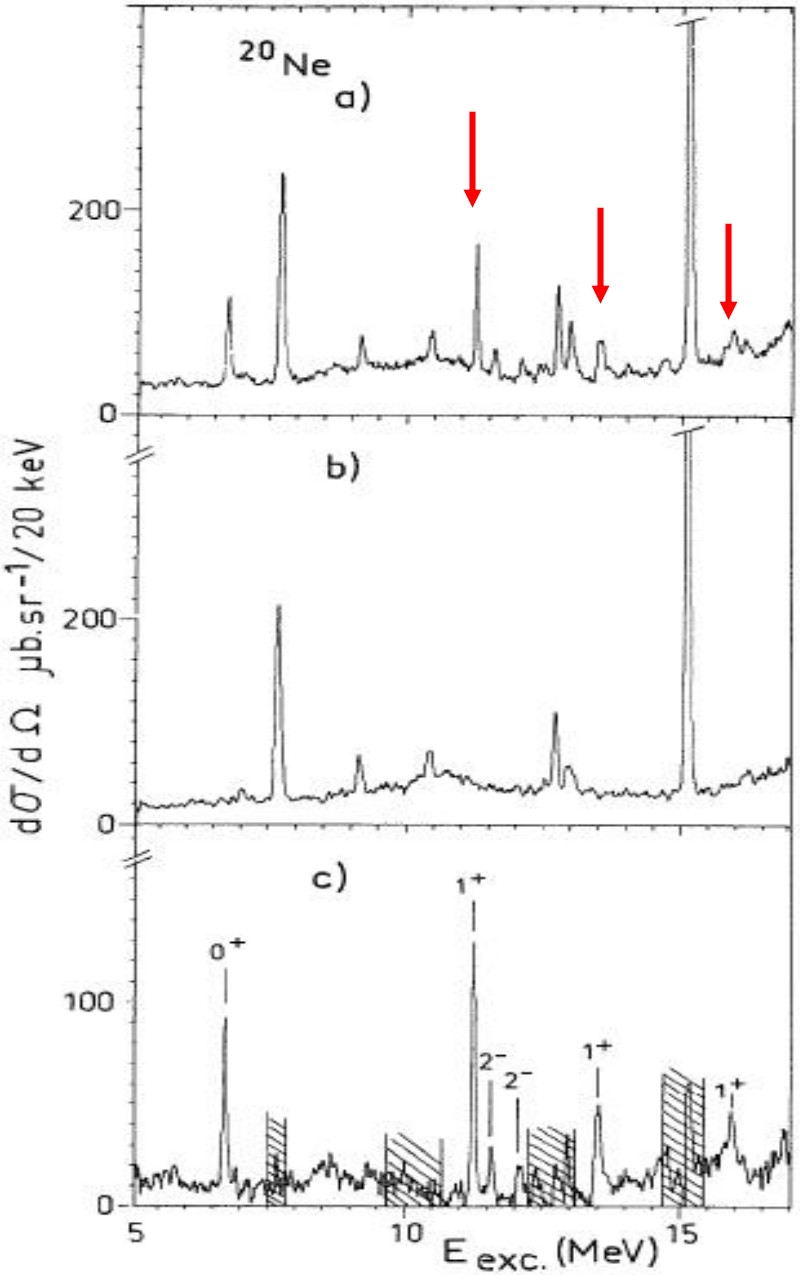
Many candidates of 1+ peak are seen.

A self-supporting target of surfur sheet was used. (~6mg/cm^2)

Energy resolution : ~40 keV (due to the target thickness)

図6

# 20Ne(p,p')



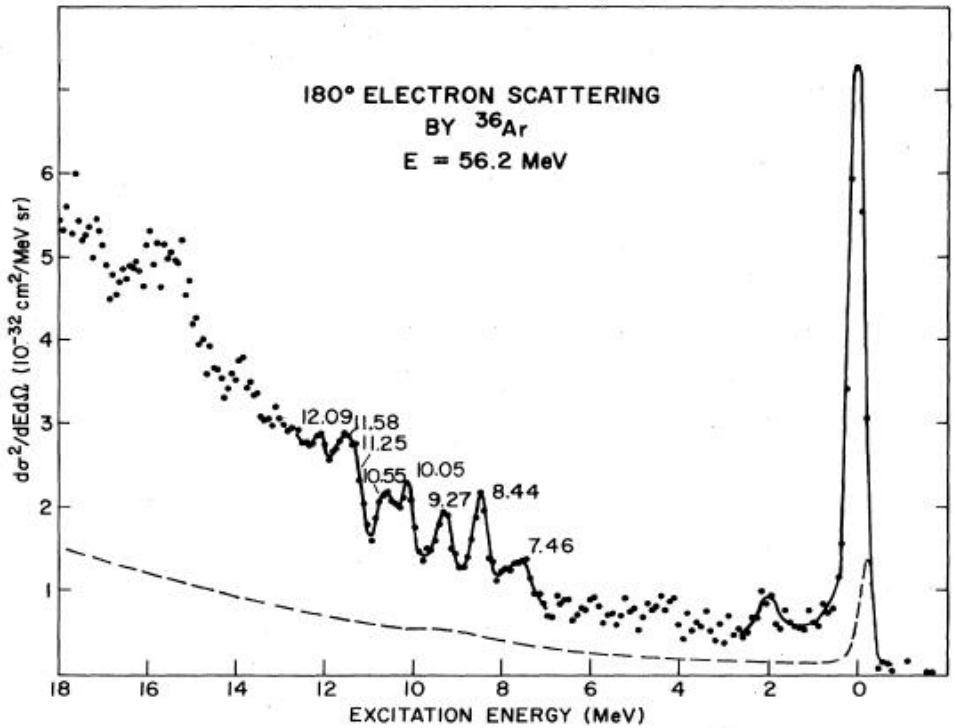

With Kapton windows

A.Willis et al. NPA464(1987)315-325

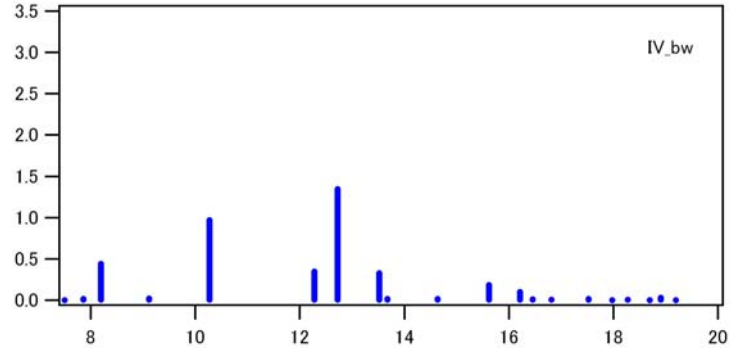
1. Spectrum from (p, p') at $\Theta_{lab} = 3°$ for $^{20}$Ne. (a) Measured spectrum, (b) spectrum for H-filled target, (c) subtracted spectrum (see text).

# 36Ar(p,p')

L. W. Fagg RMP 47 3 (1975)




Shell model calculation with USD Interaction for 36Ar 1+ IV

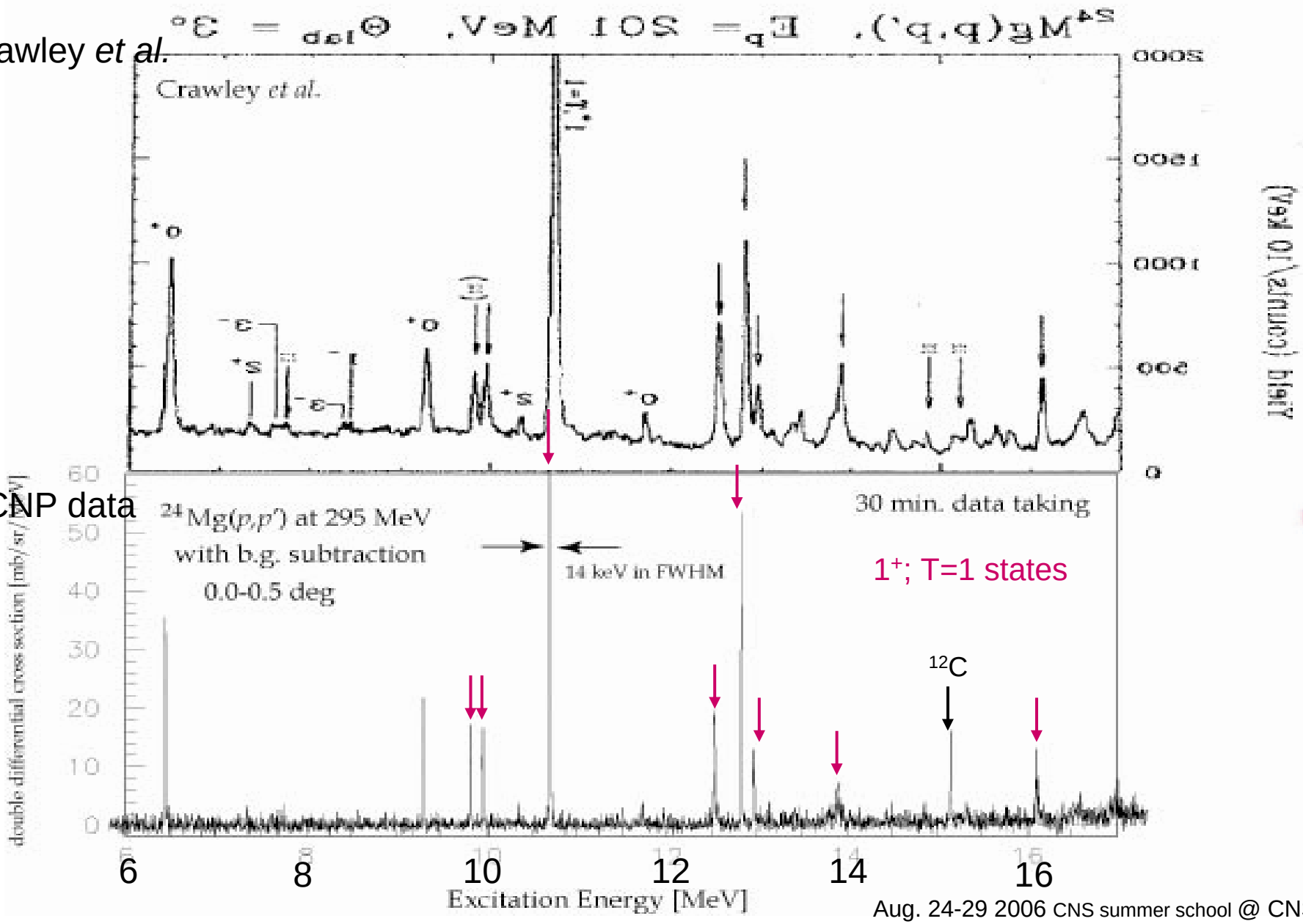



Excitation energy

# $^{24}$Mg(*p*,*p*')

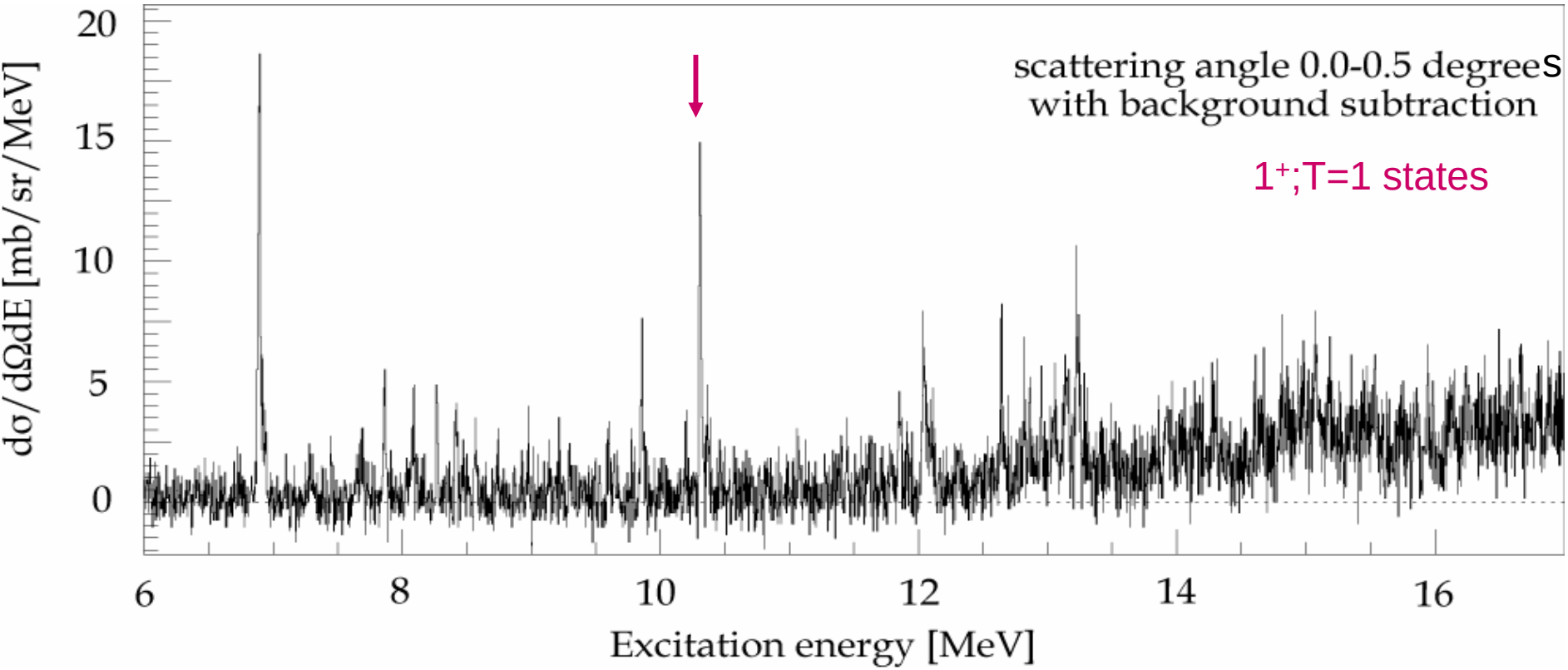
Crawley *et al.*

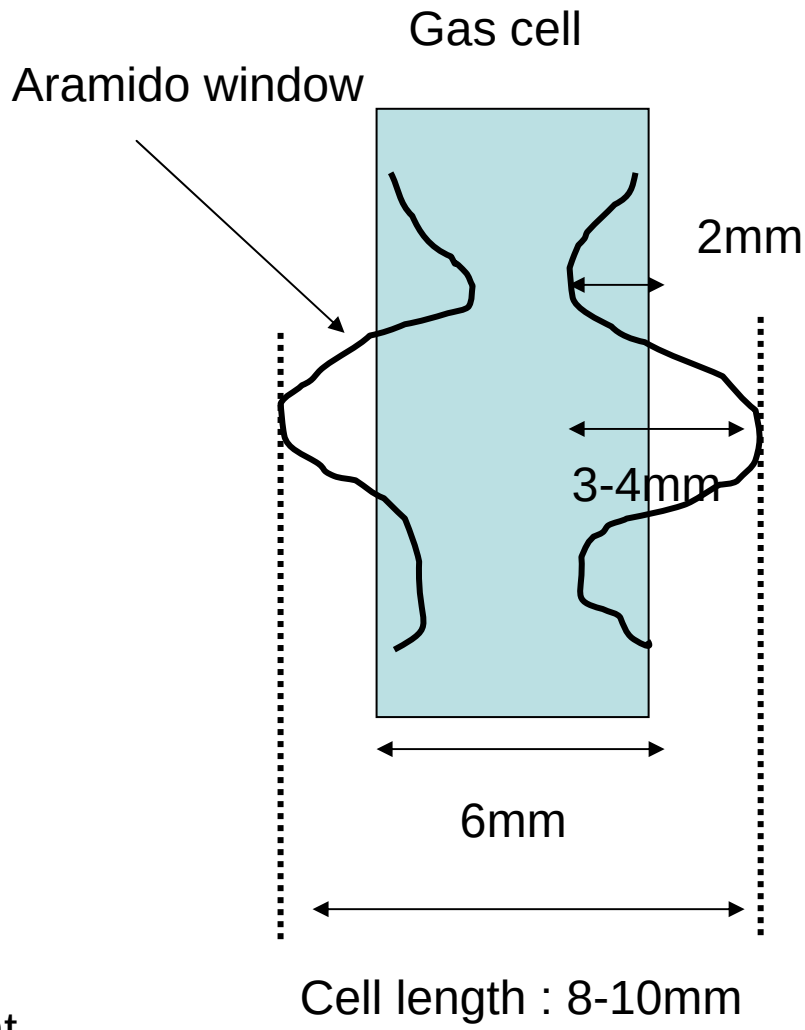
RCNP data



# $^{40}$Ca(*p*,*p*')

120 min. data






The gas cell for inelastic measurement