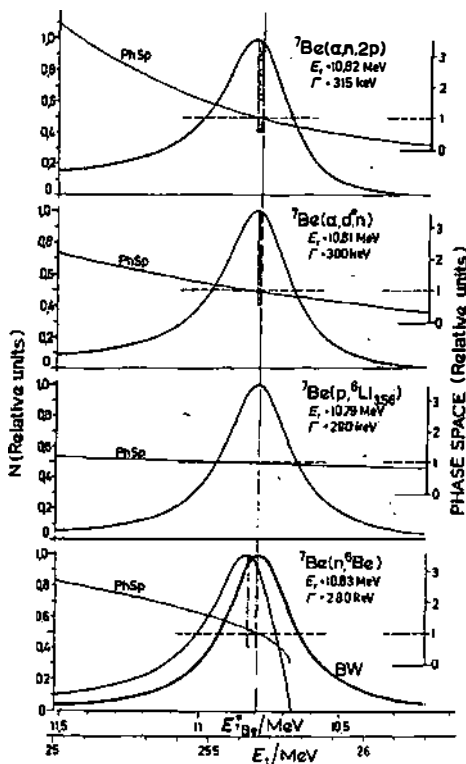


INFLUENCE OF THE STRUCTURE ON THE RESONANCE PARAMETERS
OF STATES IN LIGHT NUCLEI

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States of light nuclei are frequently particle un-
stable and disintegrate via different breakup processes
(3, 4, 5.. body). Since the phase space factors for dif-
ferent decay modes differ one should apply the adequate
phase space factor in extracting the exact position and
width of the level. The extraction of the position and
width from experimental spectra without assumption for
the structure of the level in question may thus be grossly
in error. This is visible from the calculation we present
for the $T = 3/2$ level of ${}^7\text{Be}$ in the reaction ${}^9\text{Be}(p, t)$
 ${}^7\text{Be}$ at $E_p \approx 50$ MeV. Depending on the assumed level struc-
ture we observed severe



alterations (see figure)
of the width, position
and shape, compared to
the Breit-Wigner curve
($E_R = 10.79$ MeV, $\Gamma = 290$
keV).

So far the extrac-
tion of resonance pa-
rameters of such levels
mostly did not consider
this effect. Thus we im-
ply that the position and
width of unstable levels
should be reviewed.