

Dictionary 24 (Data headings) – ANG-AZ and ANG-AZ-RL
(N. Otsuka, 2021-08-13, Memo CP-D/1019)

This paper seeks an approval to (1) make the heading ANG-AZ obsolete and use ANG-AZ-RL for the relative azimuthal angle, (2) make the two headings ANG-AZ1 and ANG-AZ2 obsolete.

I realized during review of PRELIM.F083 and F084 that we have the following two heading codes in Dictionary 24:

- ANG-AZ (Azimuthal angle)
- ANG-AZ-RL (Azimuthal angle between 2 reaction planes)

As LEXFOR “Differential Data” mentions, the azimuthal angle is defined as the angle between two reaction planes. In other words, a single azimuthal angle does not make sense to define a dataset, and we expect to see ANG-AZ-RL (or a combination of ANG-AZ1 and ANG-AZ2) in EXFOR entries.

ANG-AZ is seen in the following entries in EXFOR Master 2021-08-10:

14337
22839, 22997
30036
A0883
E2267
F0084, F0894, F1148, F1228, F1310, F1343, F1344 (all in PRELIM.F083 or F084).
O1450, O1518, O1863, O1974, O2462, O2473
T0071, T0072

I believe there are few users need such azimuthal angle dependent data, and I do not register them in the Feedback List. I guess we simply need to replace ANG-AZ with ANG-AZ-RL in many cases. This replace must be done also in EXFOR thoroughly.

Dictionary 24 (Data headings)

ANG-AZ (*Obsolete*)

Addition to Memo CP-D/1019:

There are also two other headings ANG-AZ1 and ANG-AZ2 (both are expanded to “azimuthal angle”!). They are used in D0553.004 and O1432.002-009 for $d+p \rightarrow n+p+p$. I believe very few users need datasets defined with two azimuthal angles, and suggest making these two headings obsolete.