REACTION Codes with SF6=POL and SF8=ASY

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All data sets coded with REACTION codes having SF6=POL and SF8 including ASY were checked.

Subentry	Actual quantity compiled	Proposed action
13627.002-003	Target and projectile spins in parallel and those in anti-parallel	Ok
13673.002-003	Target and projectile spins in parallel and those in anti-parallel	SF3: SCT →TOT (transmission)
13780.002.3	Projectile beam with positive helicity and negative helicity on resonance.	SF3: SCT → TOT (transmission). SF8: Use DSP/ASY/MSC.
21312.002-003	Target and projectile spins in parallel and those in anti-parallel. The asymmetry in EXFOR definition multiplied by 2.	SF3: EL → TOT (transmission). SF5: Use TRS. SF8: Use DSP/ASY/FCT.
22250.002-007	Projectile beam with positive helicity and negative helicity on resonance.	SF5: Add LON. SF8: Use DSP/ASY/MSC.
23106.002-004 41388.003 41484.003-013	They seem very different from those compiled with SF8=DSP/ASY.	Delete them, or propose quantity codes with submission of their definitions for LEXFOR.

Note that the modifier DSP means cross section difference $\sigma_{\uparrow\downarrow}$-$\sigma_{\uparrow\uparrow}$ where $\uparrow\uparrow$ ($\uparrow\downarrow$) denotes the target spin and projectile spin are in parallel (anti-parallel). This modifier is used with the branch code TRA (transverse polarization) or LON (longitudinal polarization).

Addition to LEXFOR "Polarization"

Spin-spin asymmetry
$\varepsilon=(N_p-N_a)/(N_p+N_a)$
where N_p and N_a are counts from the reaction between target and projectile which spins are in parallel (p) and anti-parallel (a), respectively.

REACTION Coding: TRS or LON in SF5, POL in SF6, DSP/ASY in SF8.