TABLE II. The individual systematic uncertainties and their typical effect on cross sections and cross section ratios.

Quantity	uncertainty	$d\sigma/d\Omega de'$	σ_{Al}/σ_d	σ_d/σ_p
Beam Angle	± 0.2 mr	$\pm 1.4\%$	$\pm 1.4\%$	$\pm 1.4\%$
Beam Energy	$\pm 0.1\%$	$\pm 0.6\%$	$\pm 0.4\%$	$\pm 0.4\%$
Beam Charge	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$
Target density				
(beam effects)	$\leq \pm 1\%$	$\leq \pm 1\%$	$\leq \pm 0.5\%$	$\leq \pm 0.7\%$
(thickness)		$\leq \pm 0.5\%$	$\leq \pm 2\%$	$\leq \pm 0.5\%$
(temperature)	$\leq \pm 0.4\%$	$\leq \pm 0.4\%$	$\leq \pm 0.4\%$	$\leq \pm 0.4\%$
Acceptance	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 1\%$
Spectrometer angle	± 0.2 mr	$\pm 1.4\%$	$\pm 0.6\%$	$\pm 0.6\%$
Spectrometer momentum	$\pm 0.1\%$	$\pm 0.6\%$	$\pm 0.2\%$	$\pm 0.2\%$
Chamber efficiency	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 0.5\%$	$\pm 0.5\%$
Deadtime	$\pm 0.5\%$	$\pm 0.5\%$	$\leq \pm 0.5\%$	$\leq \pm 0.3\%$
Radiative effects (peaking approx)	$\pm 2.0\%$	$\pm 2.0\%$	$\pm 1.5\%$	$\pm 1.0\%$
Total		$\leq \pm 5\%$	$\leq \pm 5\%$	$\leq \pm 2.3\%$