

Source	Value (unc.)	Error in α (%)
First grating (1G)-detector distance z_{det}	2372.4(5.1) mm	0.43
Velocity (beam-shape model)	3023(4) m/s	0.25
Detector displacement x_1	135.00(3) μm	0.05
Detector translation \parallel	50 mrad	0.30
Velocity distribution σ_v	149(14) m/s	0.20
δ_v/v of interfering atoms	0.20(5)%	0.10
Spacer thickness a	1.998(2) mm	0.20
Electrode diameter $2R$	12.663(25) mm	0.10
Electrode voltage V	10670(16) V	0.30
Electrode orientation (x,y,z)	(20,0.1,20) mrad	0.05
1G-int. region distance z_{int}	802.6(2.0) mm	0.25
Grating period d_g	100.0(1) nm	0.10
Molecule fraction	0(1)%	0.10
Grating tilt and g	0.0(1) mrad	0.01
Beam thickness (phase avg.)	80(20) μm	0.02
Total Systematic Error		0.80