

Raith 150-TWO beam currents

2016-12-15

This document provides beam currents from the Raith 150-TWO for various voltages and all aperture sizes. All current values are in pA and are the average of three measurements.

Measurement date: 2016-12-02
Stage height (Z): 20 mm
Faraday cup: On holder
Magnification: 1000×
Extraction voltage: 5.36 kV
Extraction current: 151.7 μA
Measured by: Aaron Hryciw

Standard current mode

Aperture size (μm)	Acceleration voltage (kV)							
	1	3	5	10	15	20	25	30
7.5	6.7	7.5	8.7	11.5	14.6	17.6	15.9	19.0
10	10.6	12.3	14.0	18.7	23.6	28.7	25.9	31.2
15	31.9	37.1	42.5	55.9	70.4	86.1	76.5	92.7
20	54.0	62.5	71.3	94.0	118.3	144.5	128.4	155.5
30	236.0	184.2	187.1	234.5	295.1	359.2	320.4	384.0
60	529.9	613.7	701.3	924.7	1163.8	1422.5	1265.0	1531.1
120	2102.3	2442.1	2785.7	3671.4	4618.6	5643.5	5018.7	6077.4

High current mode

Aperture size (μm)	Acceleration voltage (kV)							
	1	3	5	10	15	20	25	30
7.5	13.1	15.1	17.5	23.3	29.7	36.8	32.5	39.1
10	21.2	24.6	28.3	37.7	48.1	59.6	52.8	63.2
15	64.0	74.1	85.3	113.0	143.5	178.1	157.5	188.7
20	107.6	124.9	143.0	190.2	241.6	299.0	265.0	317.5
30	249.2	289.0	332.6	441.7	561.0	694.8	614.7	736.2
60	1059.8	1231.3	1412.0	1870.4	2375.3	2943.5	2603.4	3118.1
120	4193.7	4881.3	5592.7	7419.1	9417.8	11 390.0	10 323.7	11 649.7