

Geminid spectra 2021

Martin Dubs, FMA

Overview

Camera: DMK 33GX249

Resolution 1920x1200

Frame Rate: 25 Hz

Sensor Type Sony IMX249LLJ-C

Sensor Format 1/1.2 inch

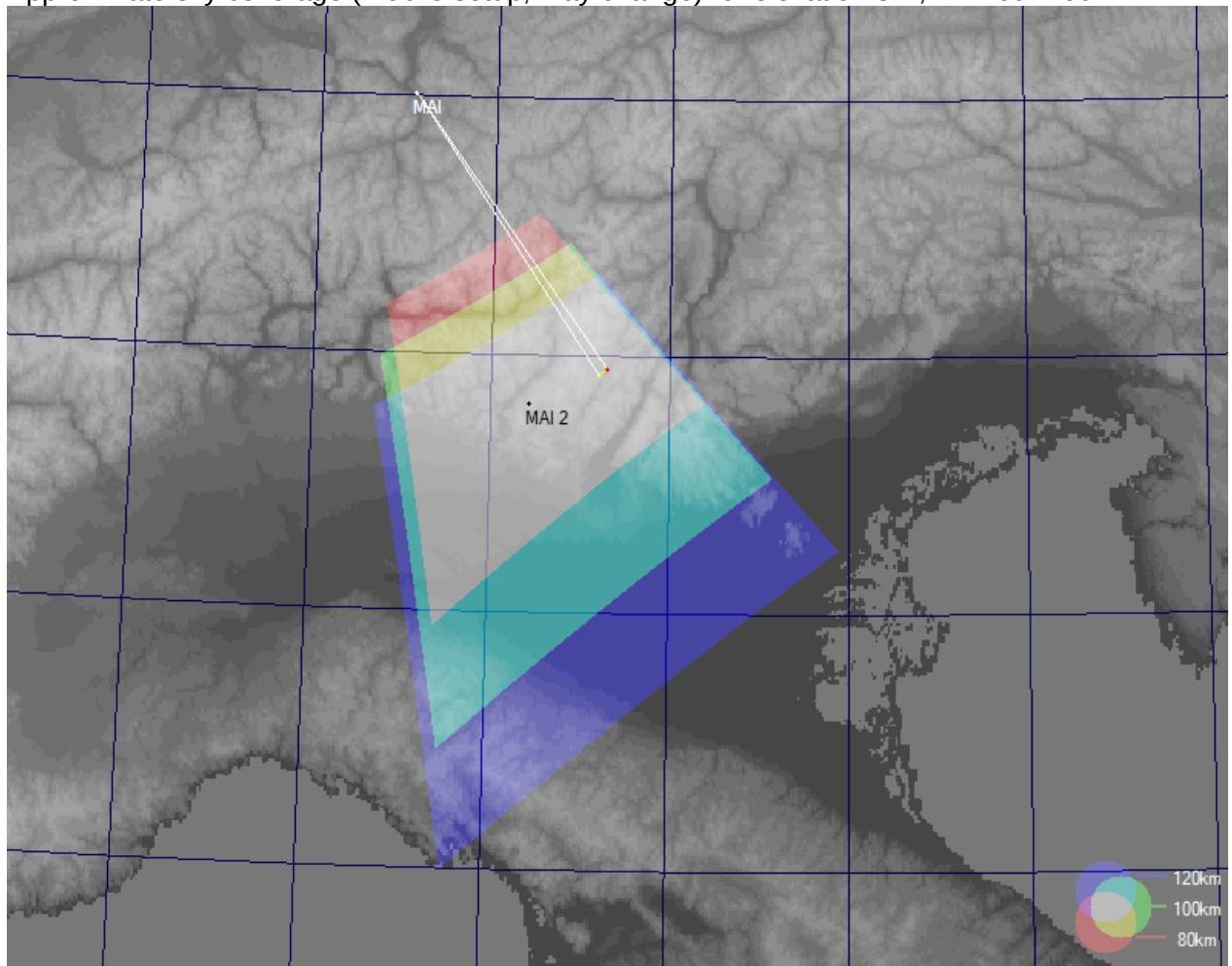
Pixel Size **5.86 μm**

Lens

Kowa LM16HC f: 16mm F/1.4

Field of view horizontal: 39°

Approximate sky coverage (mobile setup, may change) for elevation 34°, Azimuth 160°



Grating: Thorlabs 600l/mm, dispersion: 0.598 nm/pixel

Spectra analysed with Python M_SPEC.py

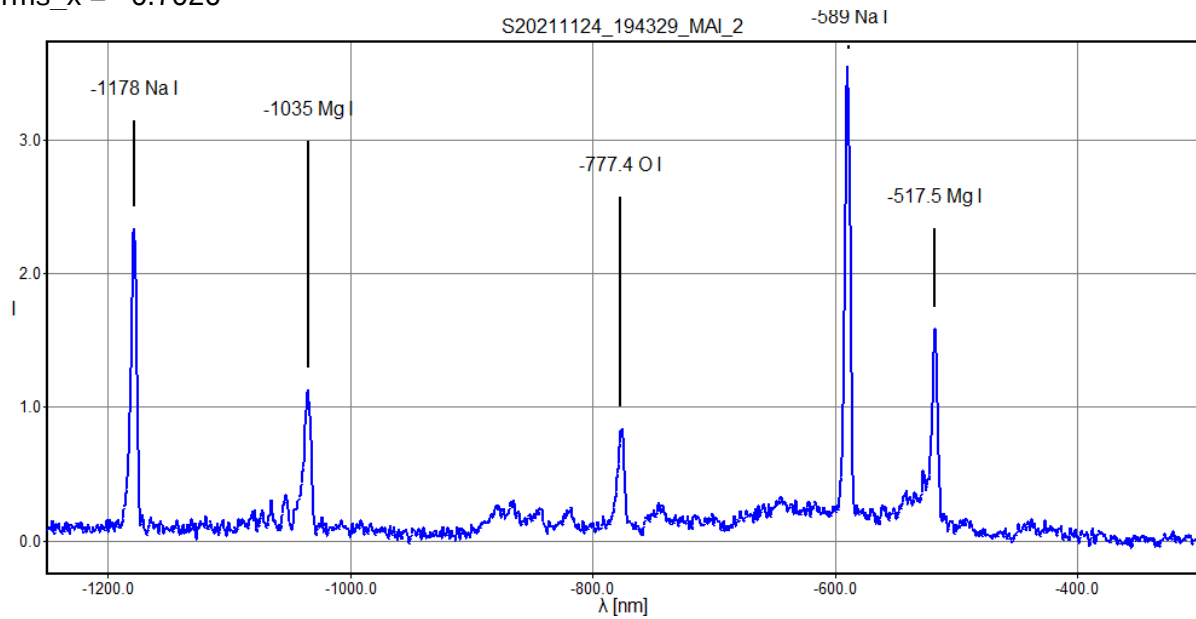
M20211124_194329_MAI_2, GEM, -1.9m



polynom for fit lambda c: [6.0053e-01 -1.2740e+03]

pixel	lambda	fit	error
1259.69,	-517.50,	-517.55,	-0.0516
1139.36,	-589.00,	-589.81,	-0.8133
829.13,	-777.40,	-776.12,	1.2845
397.99,	-1035.00,	-1035.03,	-0.0277
159.26,	-1178.00,	-1178.39,	-0.3920

rms_x = 0.7026



M20211213_222633_MAI_2, GEM, -1.7m

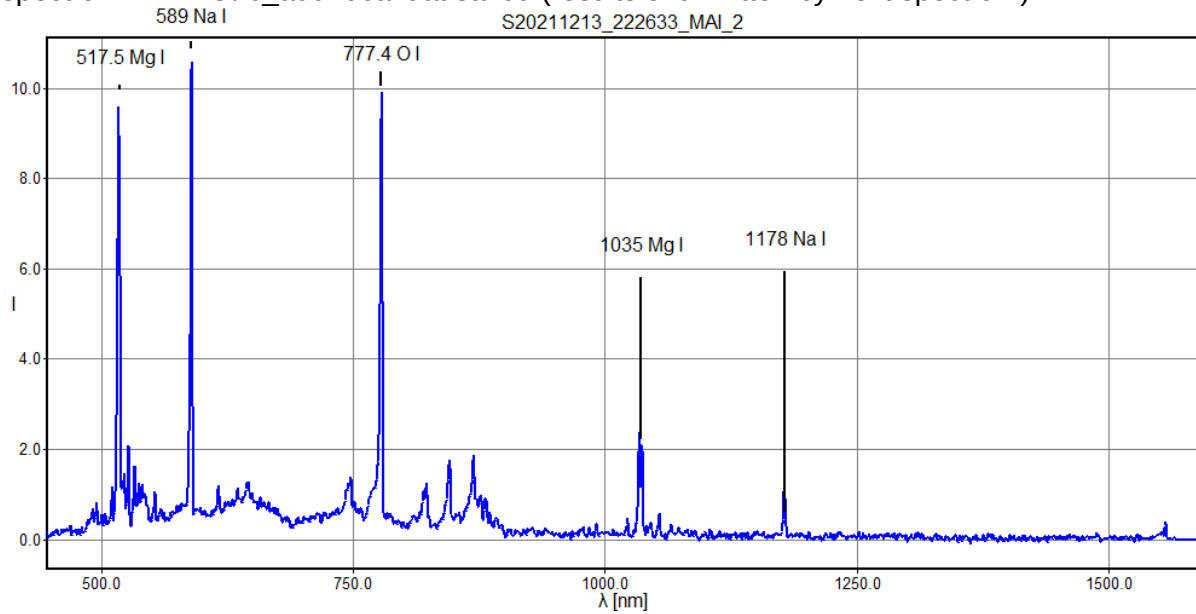


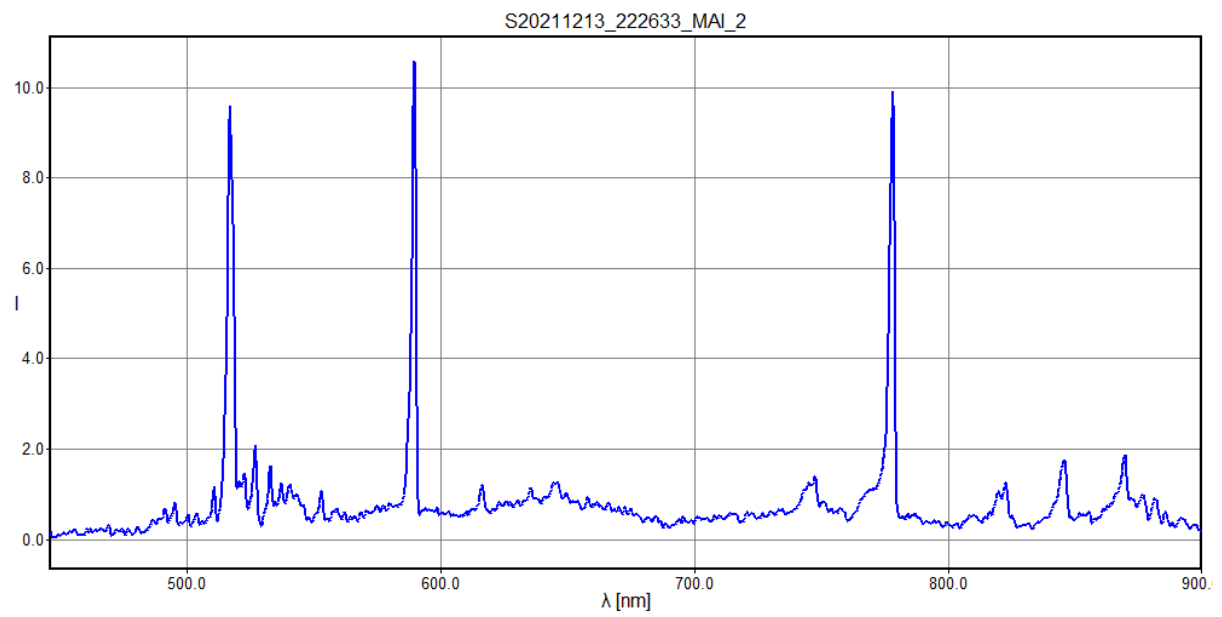
polynom for fit lambda c: [0.5976 445.0142]

pixel	lambda	fit	error
120.39,	517.50,	516.96,	-0.5381
241.67,	589.00,	589.44,	0.4414
557.00,	777.40,	777.89,	0.4895
986.06,	1035.00,	1034.31,	-0.6949
1227.01,	1178.00,	1178.30,	0.3021

rms_x = 0.5095

spectrum 211213\rb_add19cal.dat saved (results overwritten by next spectrum)





M20211213_232534_MAI_2, GEM, -1.7m

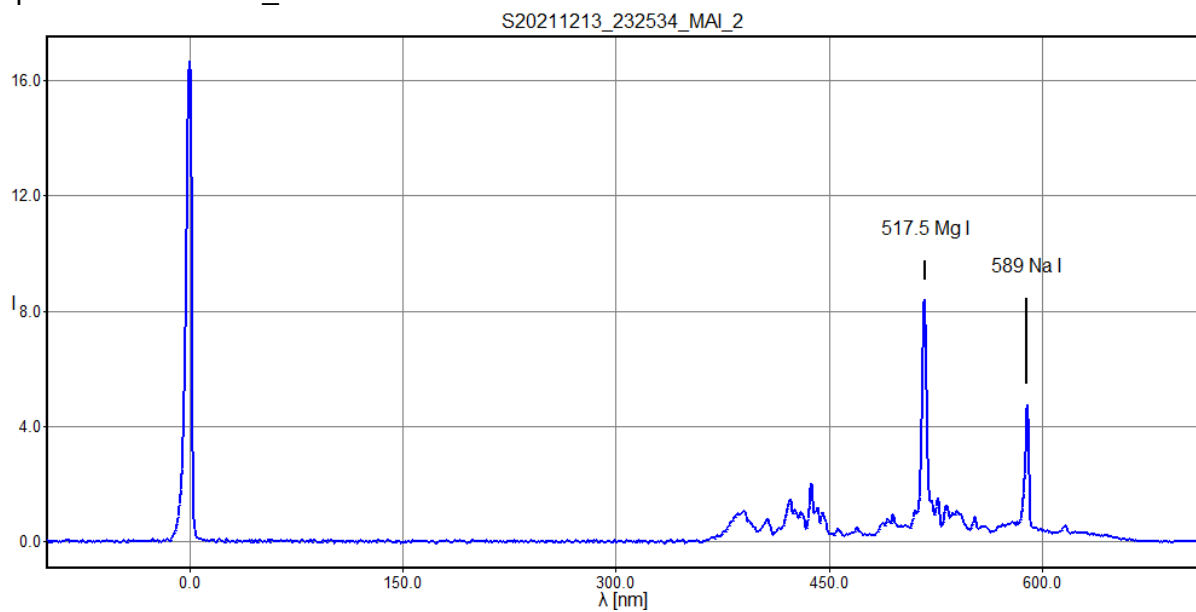


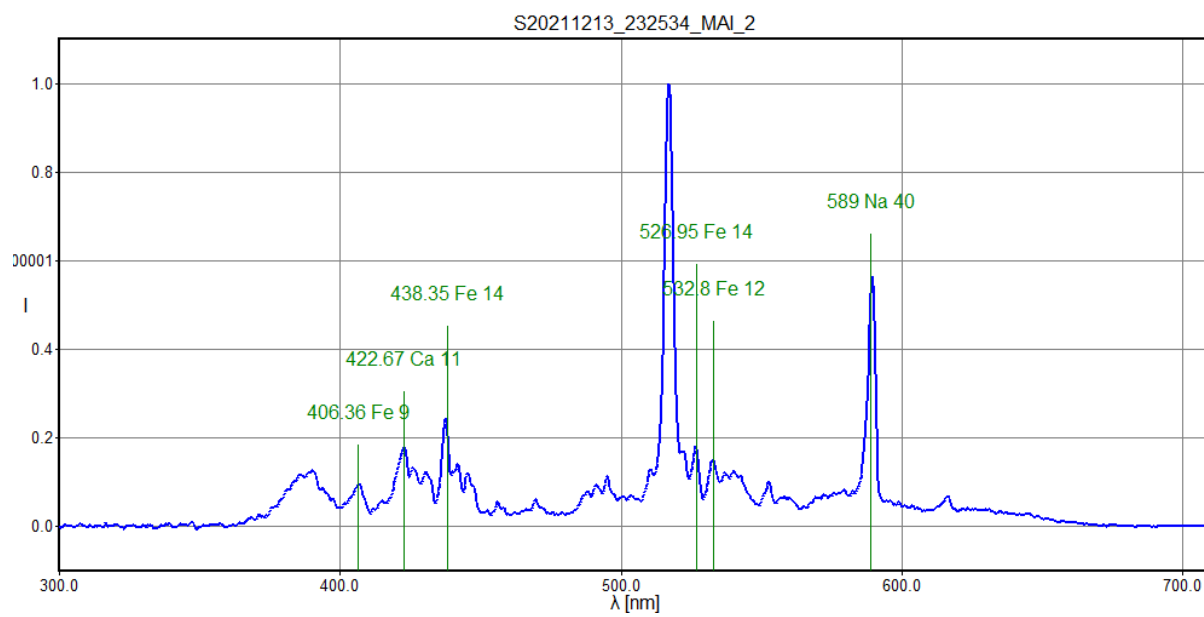
polynom for fit lambda c: [0.5971 -434.661]

pixel	lambda	fit	error
728.04,	0.00,	0.05,	0.0521
1593.93,	517.50,	517.08,	-0.4245
1715.01,	589.00,	589.37,	0.3724

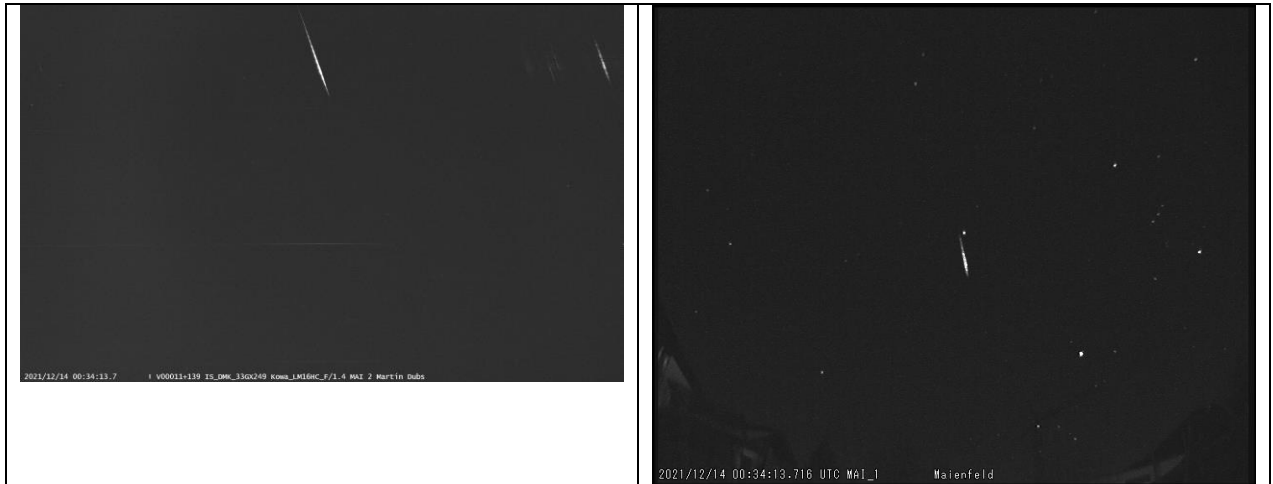
rms_x = 0.3274

spectrum 211213\rb_add19cal.dat saved





M20211214_003413_MAI_2, GEM, -1.8m



polynom for fit lambda c: [0.5977 -534.033]

pixel lambda fit error

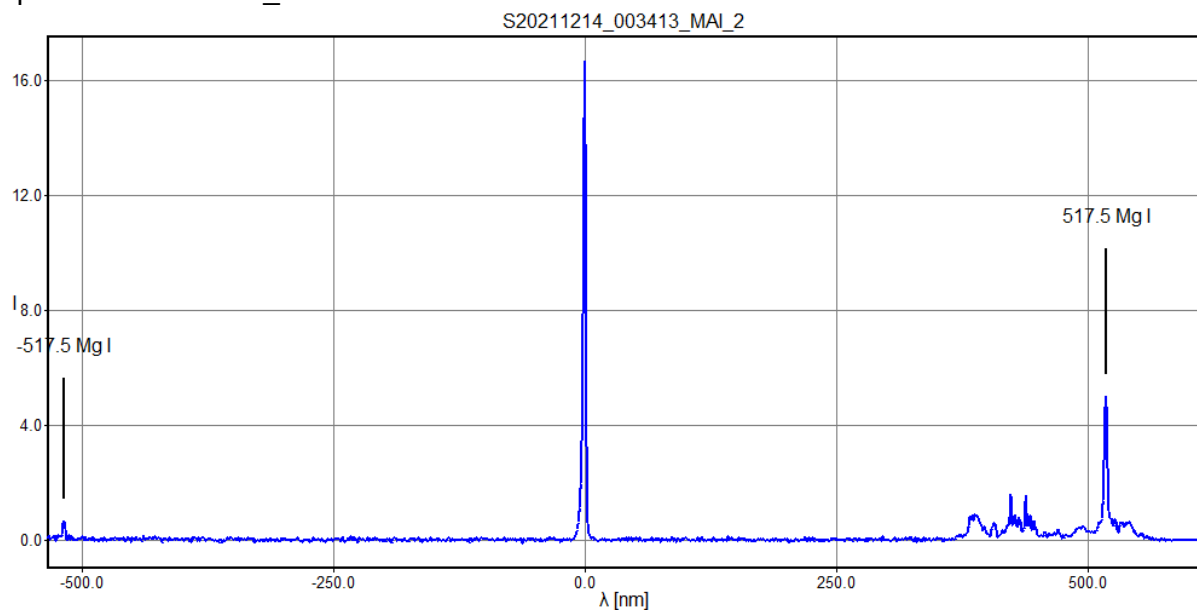
27.81, -517.50, -517.41, 0.0887

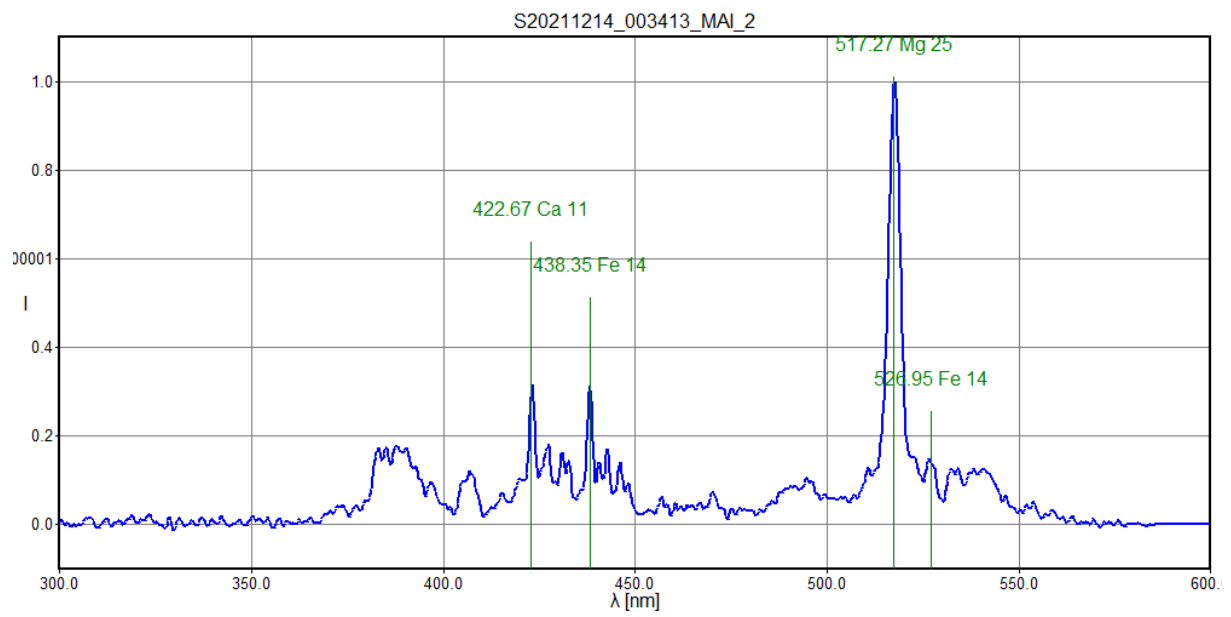
893.20, 0.00, -0.18, -0.1773

1759.48, 517.50, 517.59, 0.0886

rms_x = 0.1254

spectrum 211214\ra_add17cal.dat saved





M20211214_011914_MAI_2, GEM, -1.2m

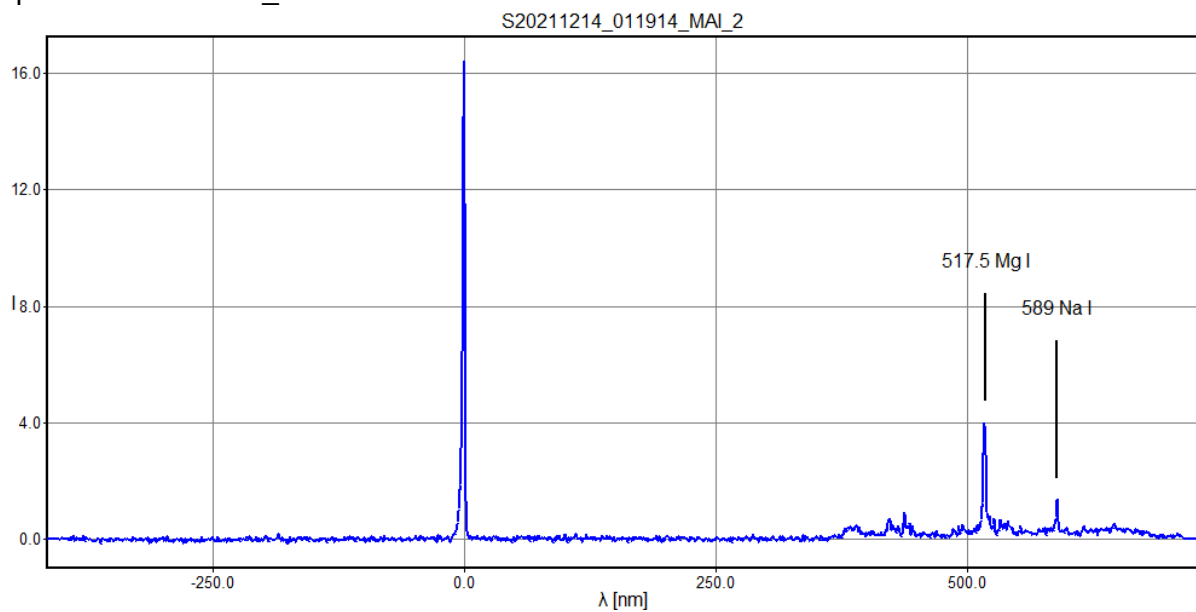


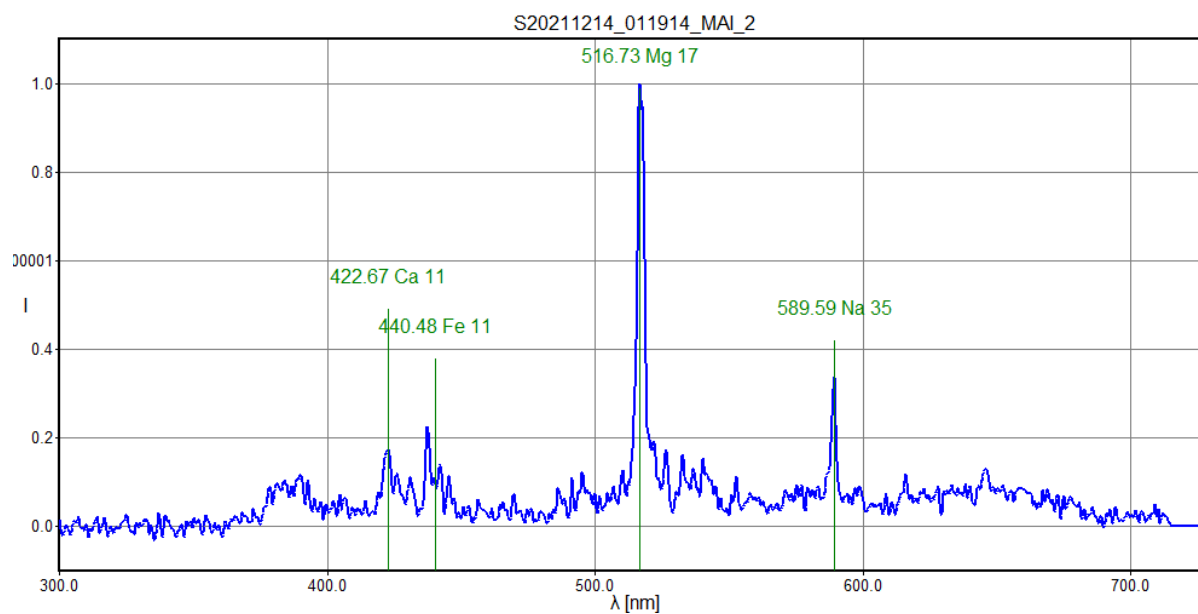
polynom for fit lambda c: [0.5981 -415.9233]

pixel	lambda	fit	error
695.43,	0.00,	0.04,	0.0407
1559.99,	517.50,	517.17,	-0.3321
1680.57,	589.00,	589.29,	0.2915

rms_x = 0.2562

spectrum 211214\rb_add13cal.dat saved





M20211214_012631_MAI_2, GEM, -1.8m

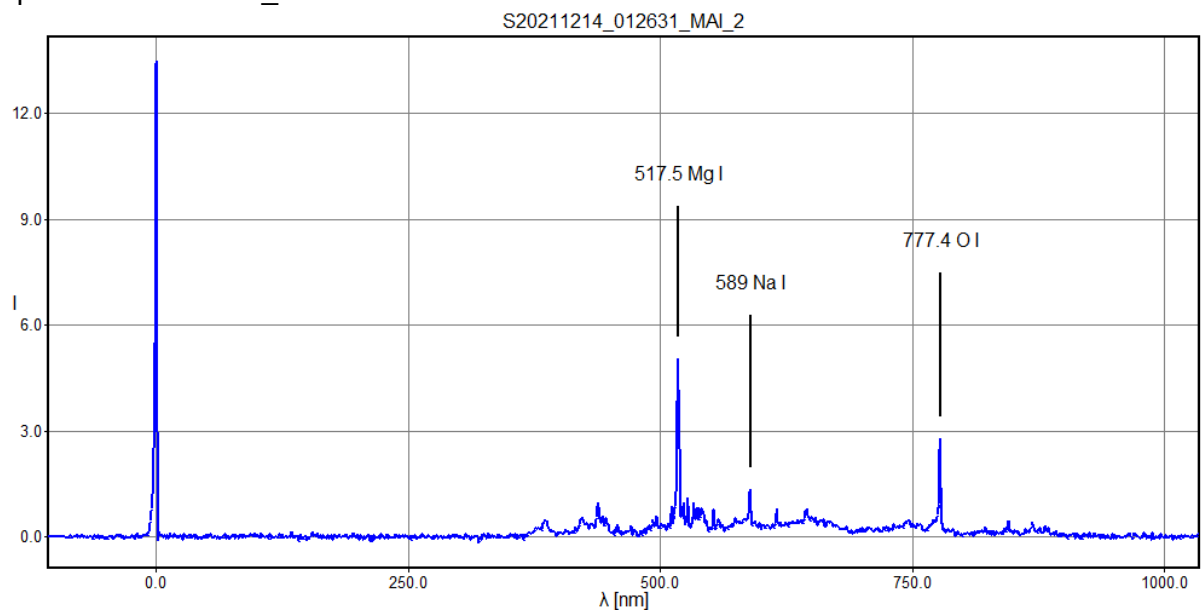


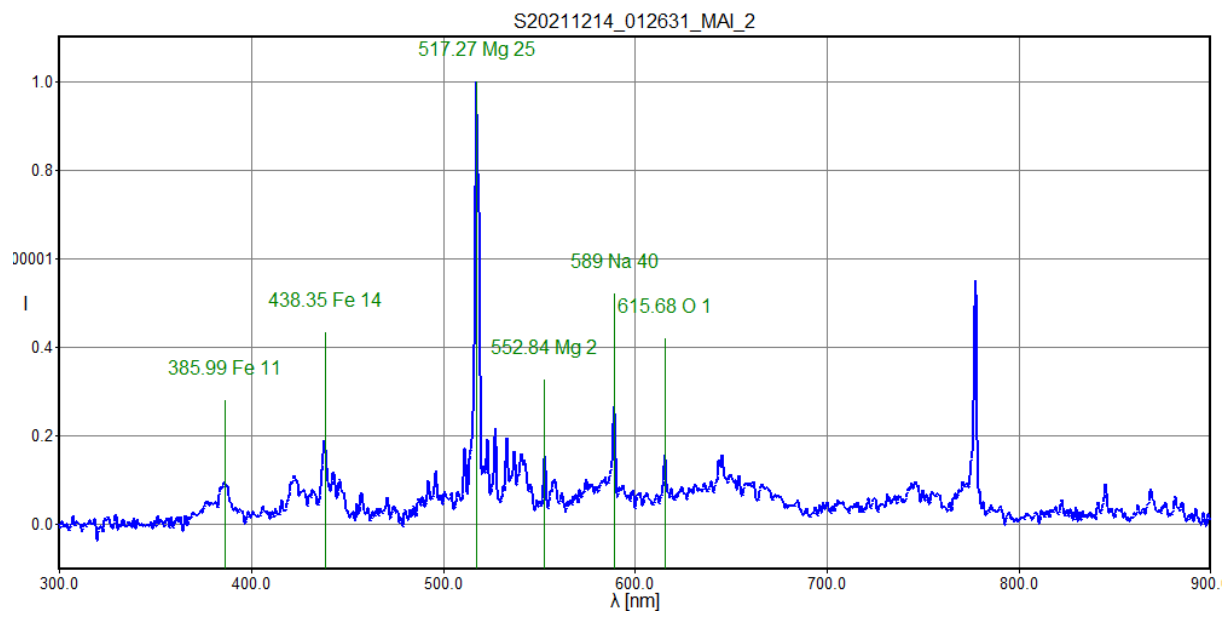
polynom for fit lambda c: [0.5965 -108.5806]

pixel	lambda	fit	error
181.94,	0.00,	-0.05,	-0.0471
1049.62,	517.50,	517.55,	0.0539
1169.59,	589.00,	589.12,	0.1201
1485.00,	777.40,	777.27,	-0.1269

rms_x = 0.0944

spectrum 211214\rc_add12cal.dat saved





M20211214_023328_MAI_2, GEM, -2.6m



polynom for fit lambda c: [0.5984 217.2868]

pixel	lambda	fit	error
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501.31,	517.50,	517.27,	-0.2264
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621.59,	589.00,	589.25,	0.2499
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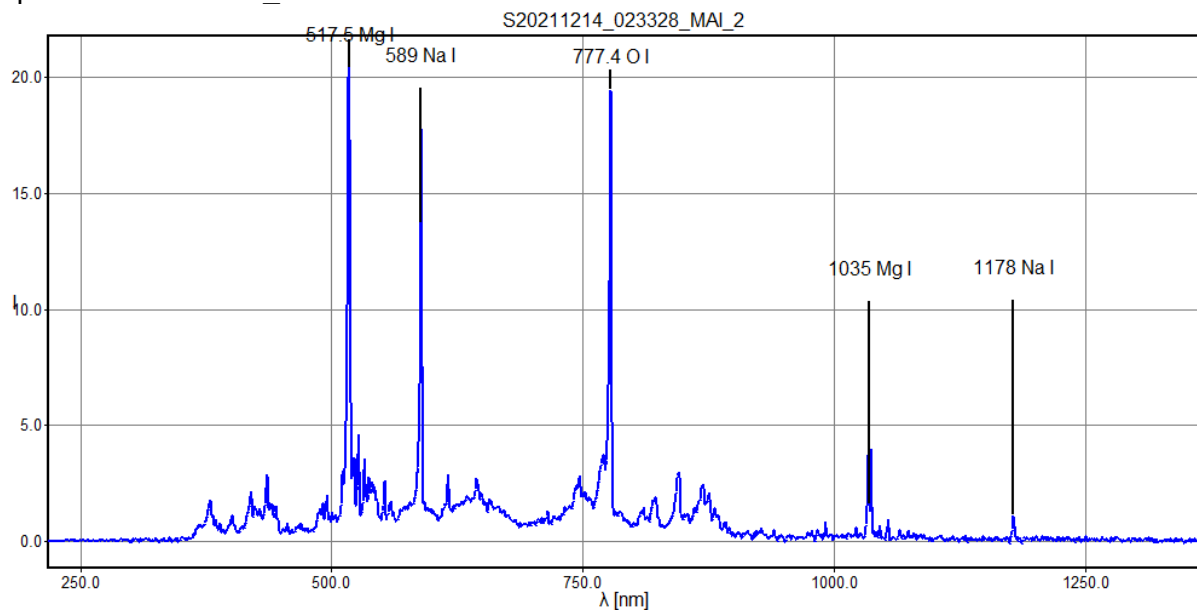
936.50,	777.40,	777.69,	0.2939
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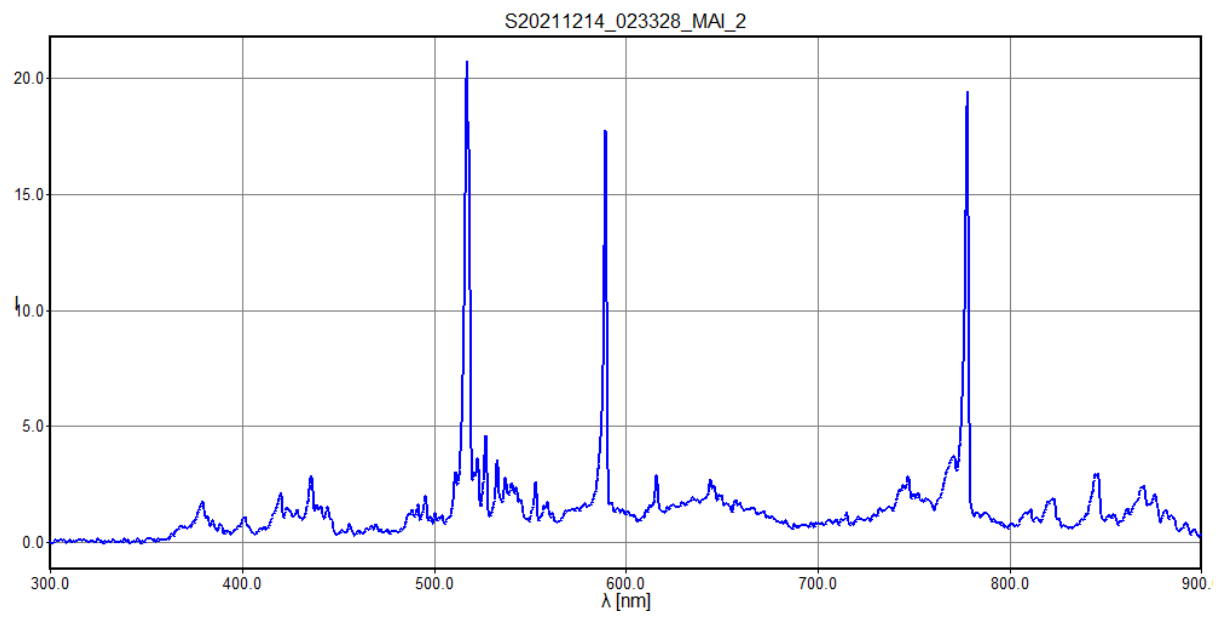
1365.15,	1035.00,	1034.20,	-0.7995
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1606.26,	1178.00,	1178.48,	0.4821
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rms_x = 0.4630

spectrum 211214\re_add12cal.dat saved





M20211214_024214_MAI_2, GEM, -1.4m



polynom for fit lambda c: [0.5965 -136.1042]

pixel	lambda	fit	error
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228.55,	0.00,	0.24,	0.2366
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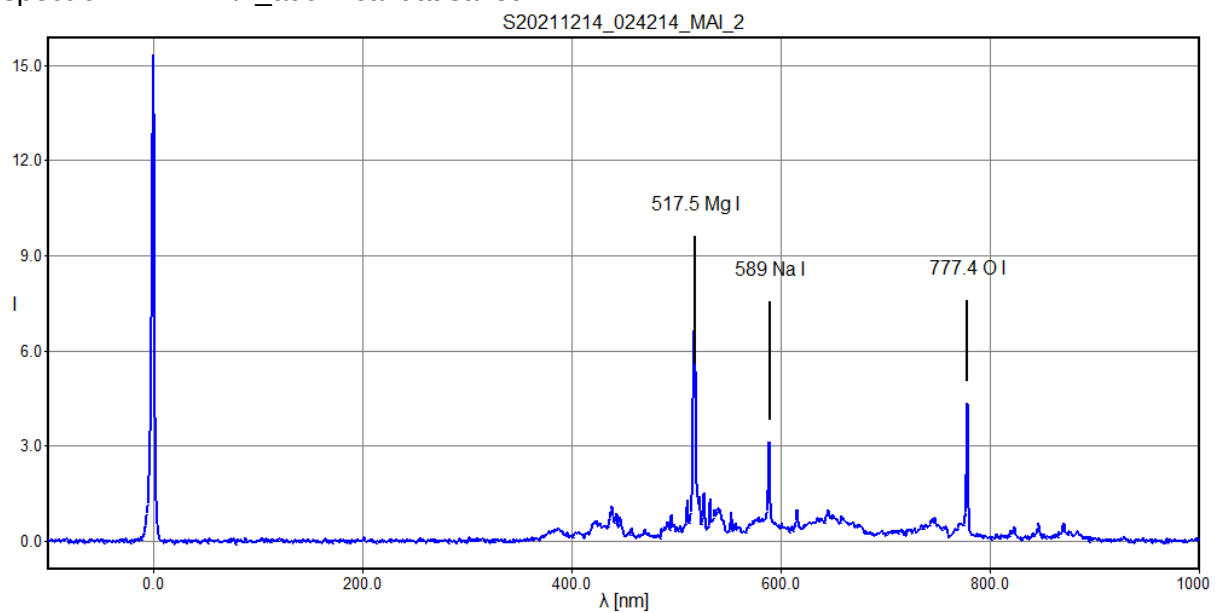
1094.82,	517.50,	517.01,	-0.4924
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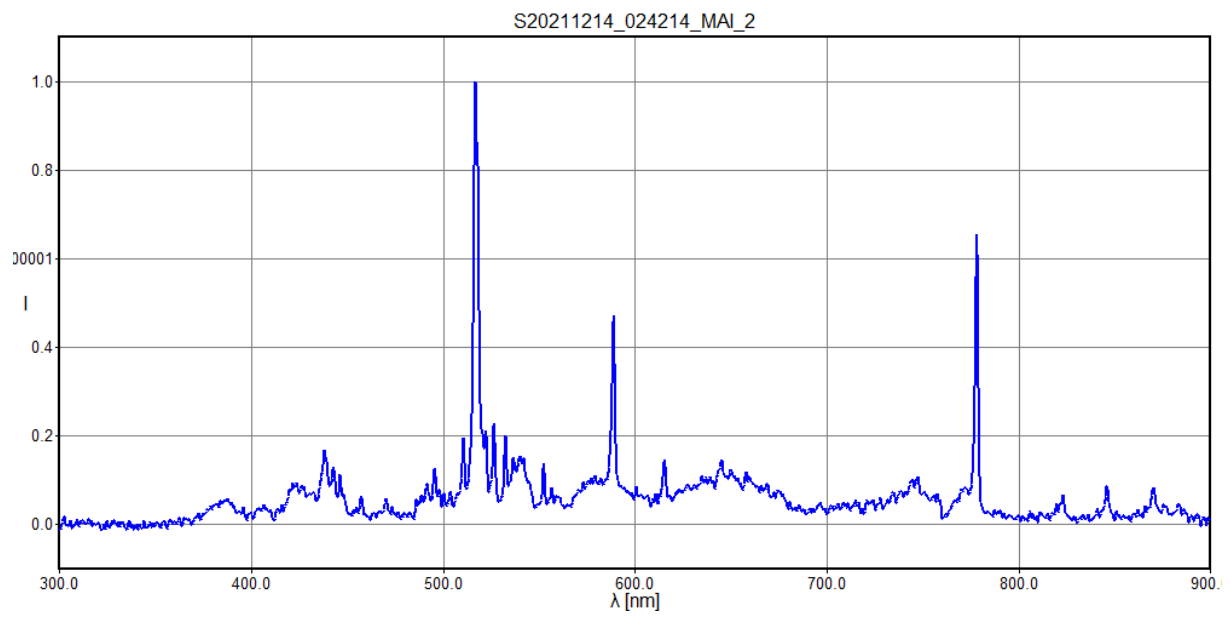
1215.01,	589.00,	588.71,	-0.2934
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1532.24,	777.40,	777.95,	0.5492
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rms_x = 0.4142

spectrum 211214\rf_add11cal.dat saved





M20211214_024626_MAI_2_GEM,-1.6m



polynom for fit lambda c: [0.5975 -278.3178]

pixel	lambda	fit	error
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466.33,	0.00,	0.33,	0.3252
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1330.72,	517.50,	516.82,	-0.6815
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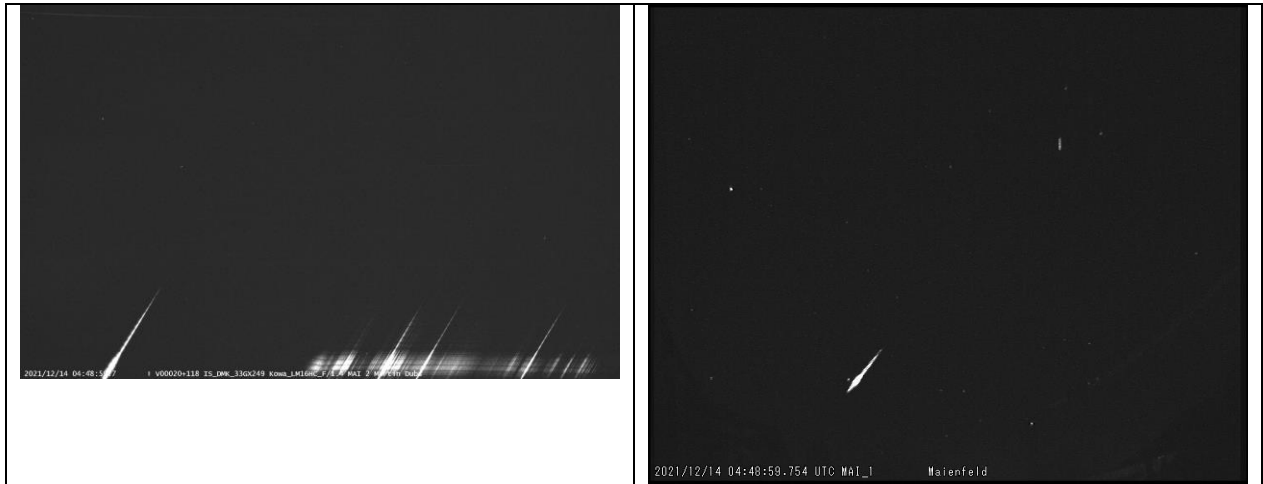
1450.86,	589.00,	588.60,	-0.3951
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1768.08,	777.40,	778.15,	0.7513
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rms_x = 0.5681

spectrum 211214\rg_add12cal.dat saved

M20211214_044859_MAI_2, GEM, -2.8m

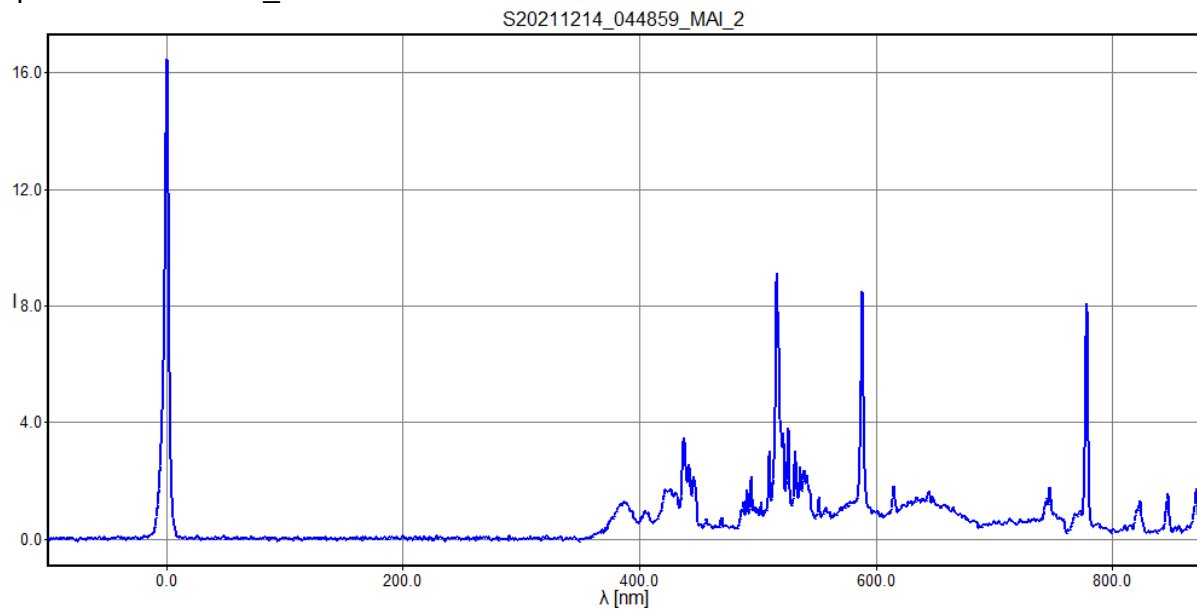


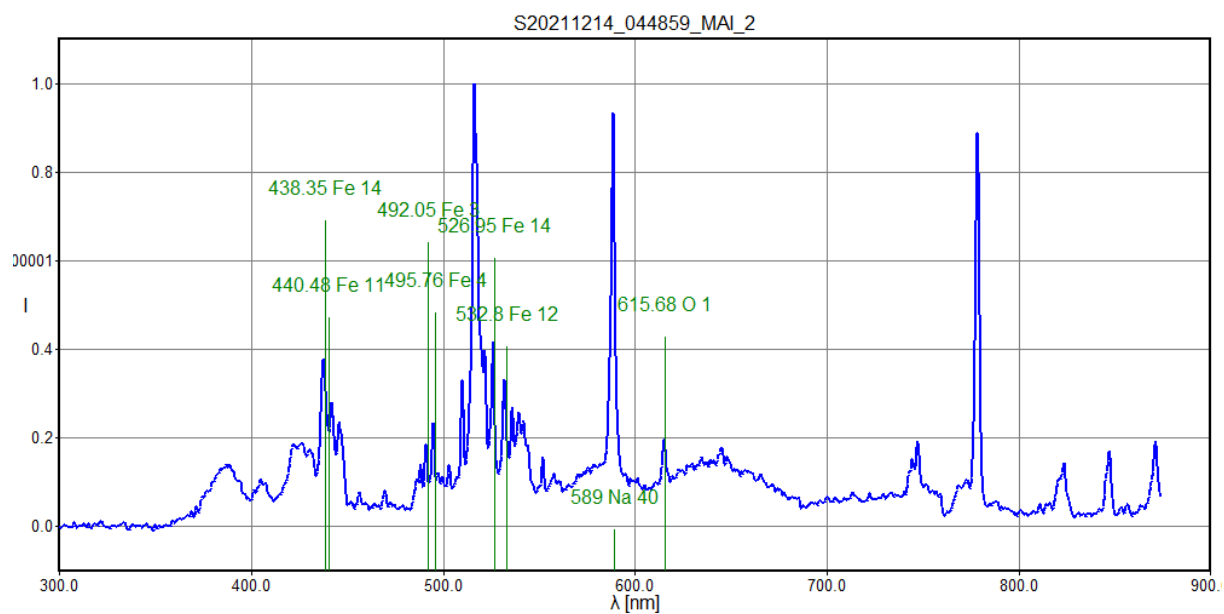
polynom for fit lambda c: [0.5969 -270.3765]

pixel	lambda	fit	error
453.72,	0.00,	0.43,	0.4338
1318.43,	517.50,	516.55,	-0.9498
1439.03,	589.00,	588.53,	-0.4677
1757.11,	777.40,	778.38,	0.9836

rms_x = 0.7544

spectrum 211214\rh_add14cal.dat saved





M20211214_230453_MAI_2, GEM, -3.5m



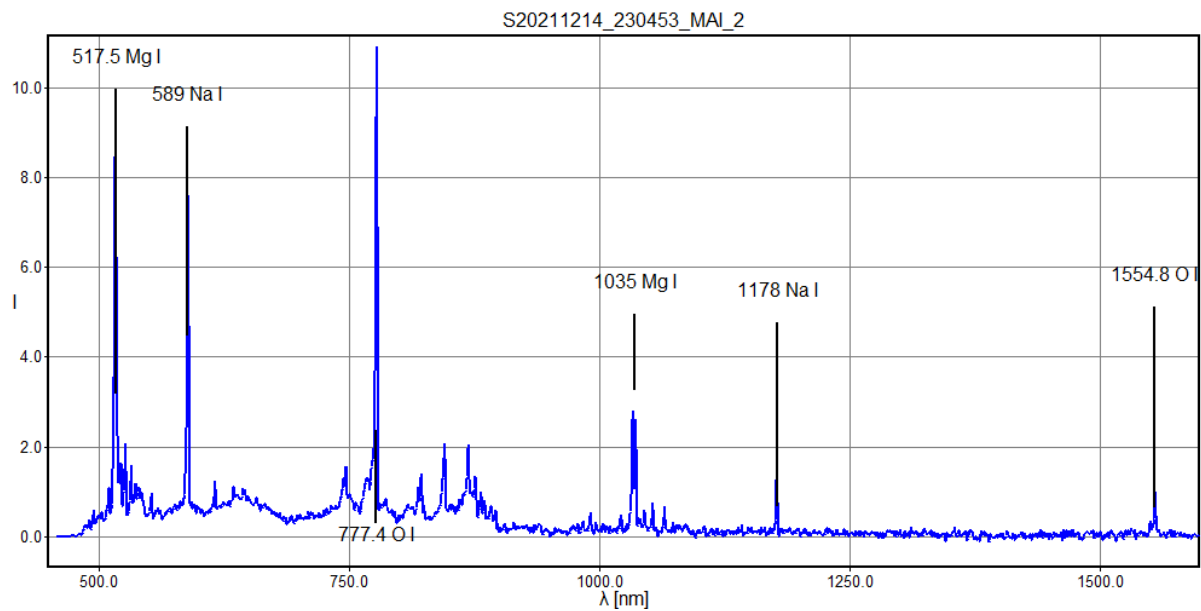
polynom for fit lambda c: [0.5972 457.2098]

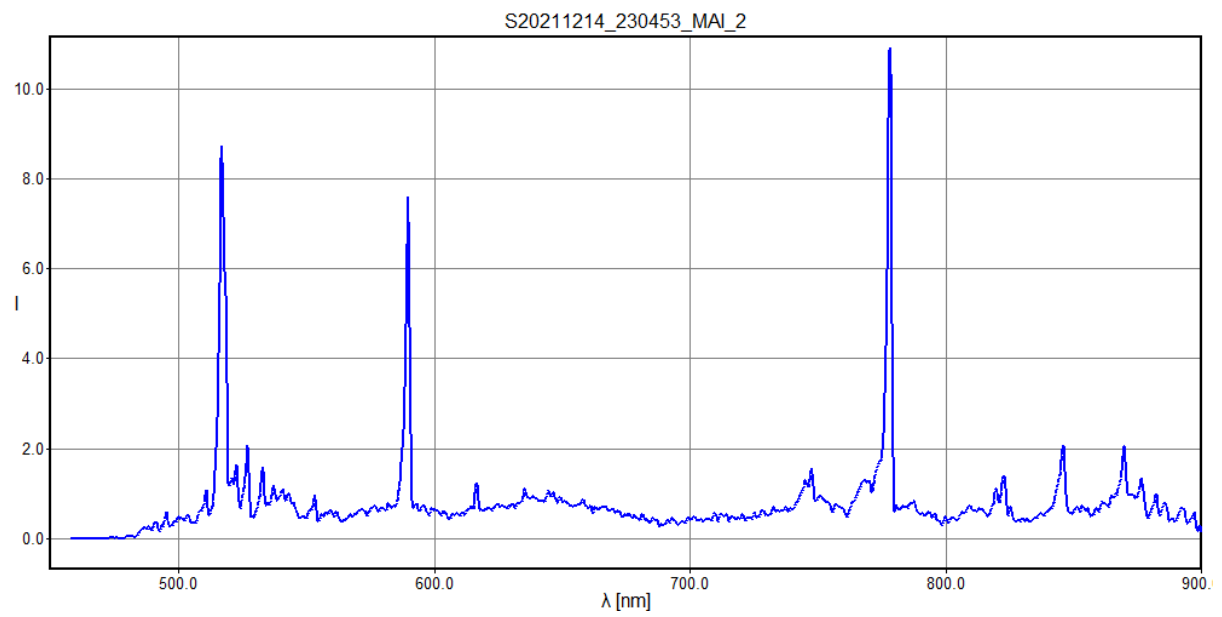
pixel	lambda	fit	error
100.34,	517.50,	517.13,	-0.3709
221.81,	589.00,	589.67,	0.6665
537.04,	777.40,	777.91,	0.5103
965.92,	1035.00,	1034.02,	-0.9784
1206.38,	1178.00,	1177.62,	-0.3845
1838.94,	1554.80,	1555.36,	0.5570

rms_x = 0.6134

spectrum 211214\ri_add15cal.dat

saved





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