



Scientific Graphing and Analysis Software

<http://www.originlab.com/>

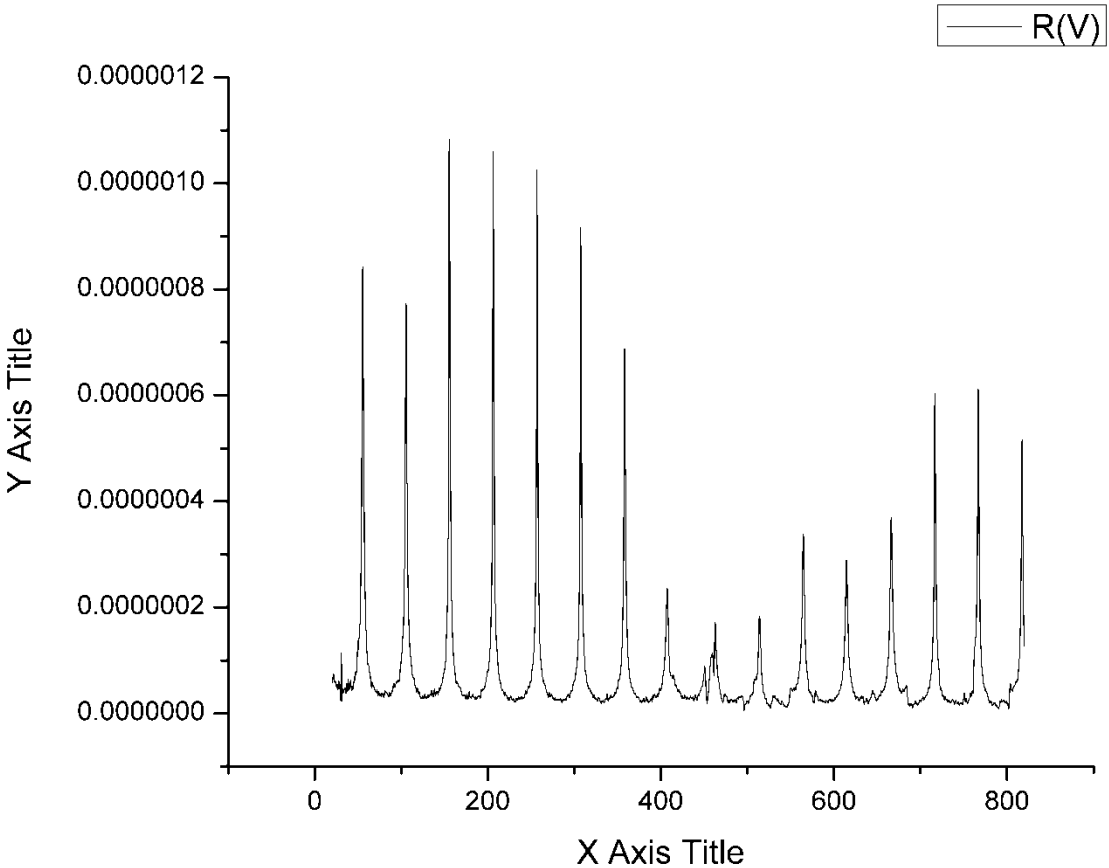
Current versions on all Physics 403 computers are [OriginPro](#) 2017

What can it do:

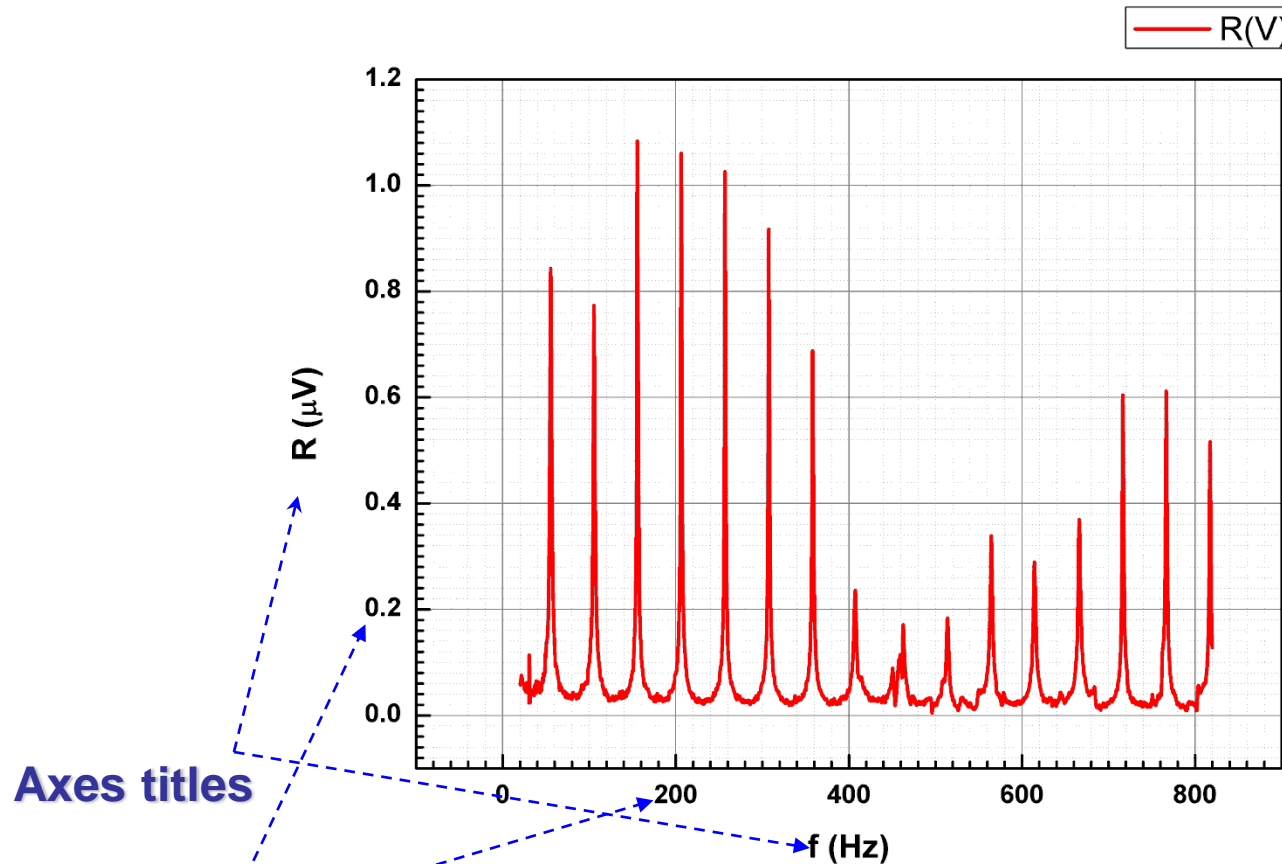
- 1. Graphical presentation of the data**
- 2. Data analysis**
- 3. Preparation of the publishing quality figures.**

This software is specially designed for scientific graphics and is a “standard” Windows application which does not require knowledge of C++ or any other high level computer language. In the same time if you like you can write some special functions or procedures using provided by Origin some programming tools:

Graphical presentation of the data. Basic.



Graphical presentation of the data. Basic.

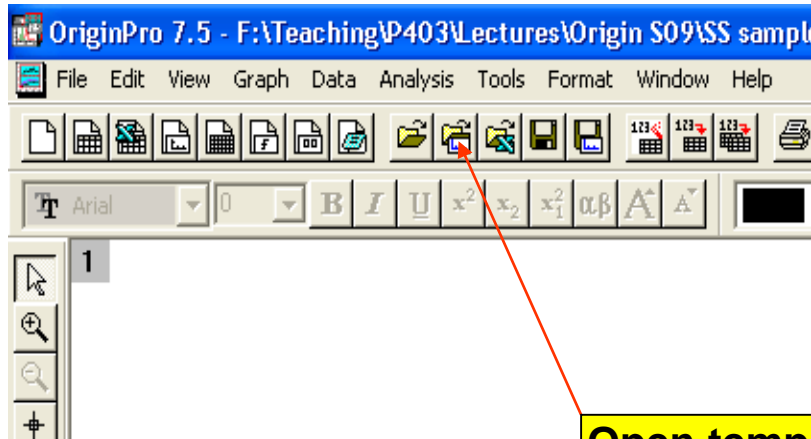


Opposite axes,
grid lines

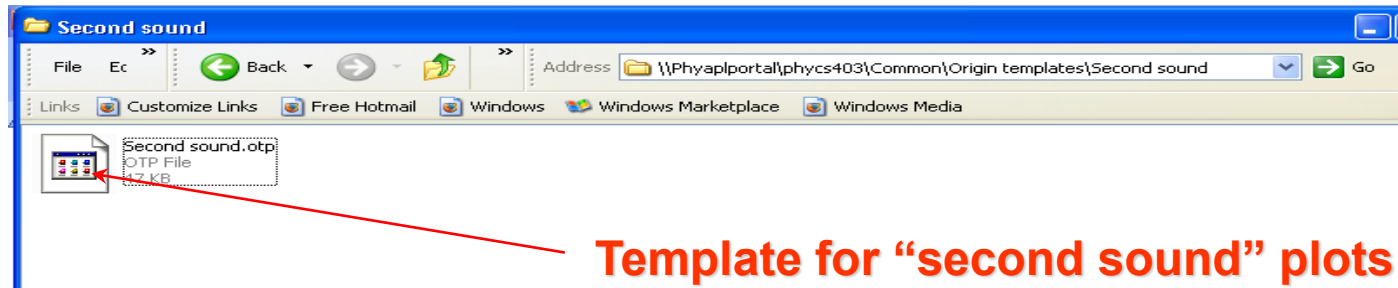
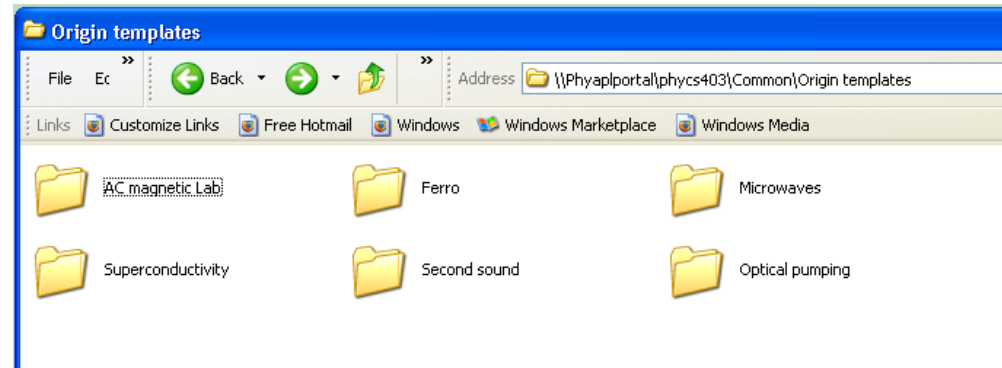
Axes titles

Bold tick labels.
For better graph
looking volts were
converted to μV

Graphical presentation of the data. Templates.



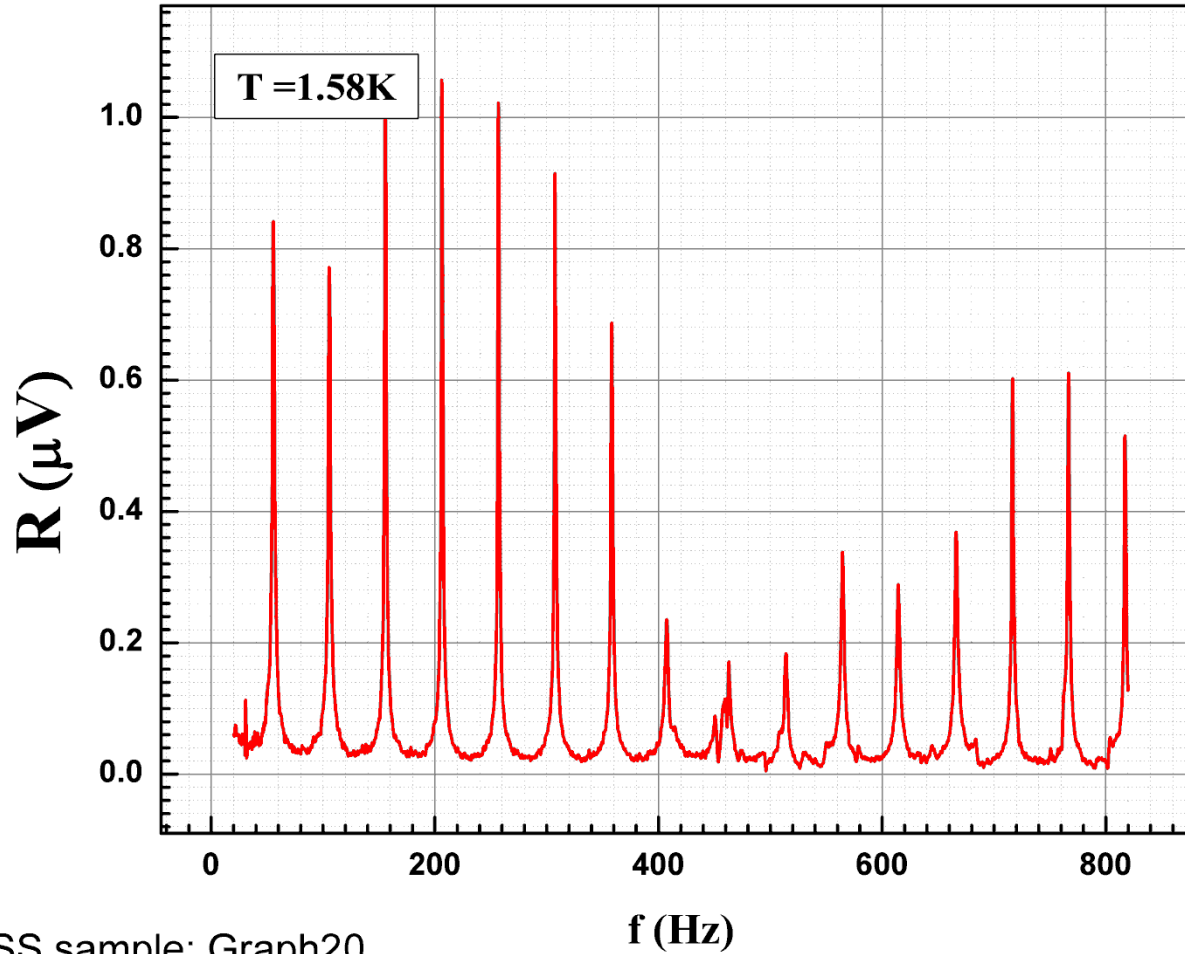
Open template



Template for "second sound" plots

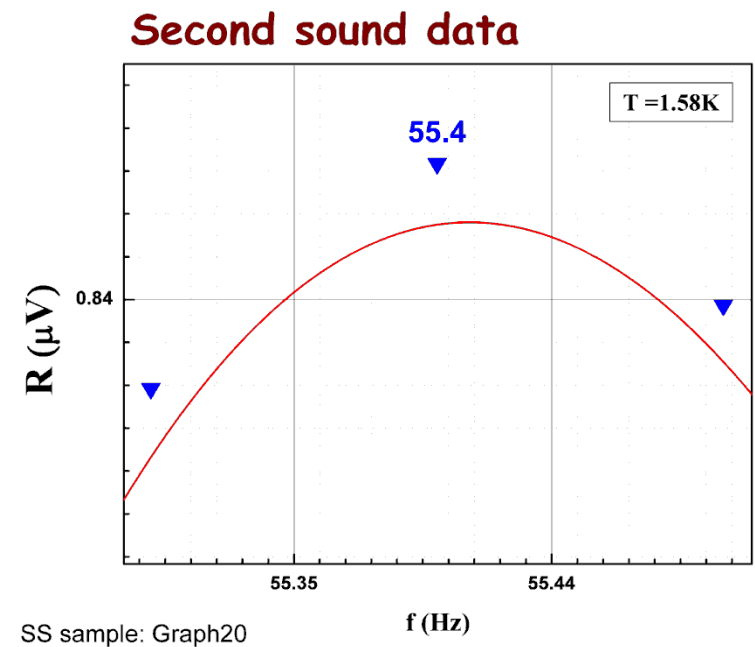
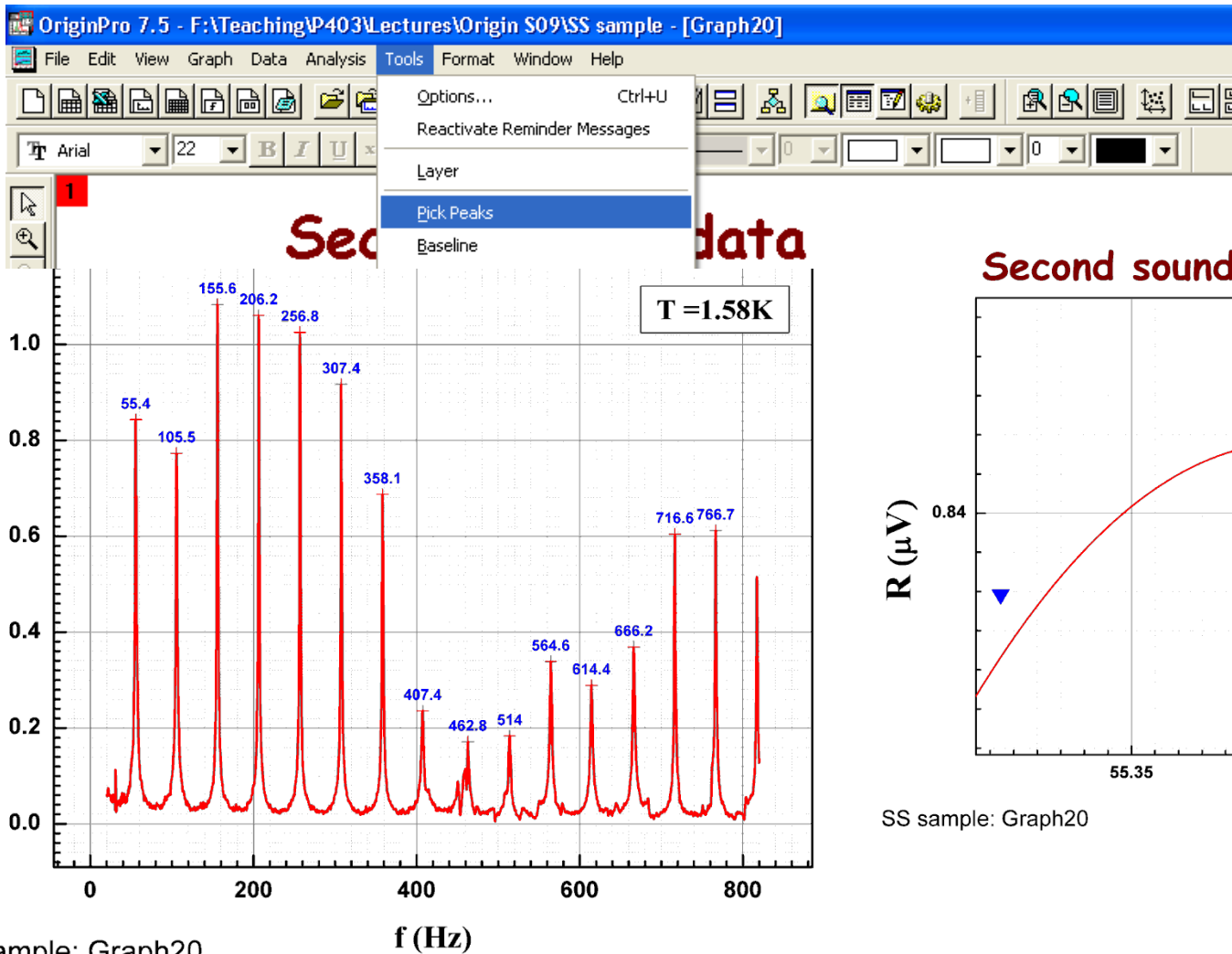
Graphical presentation of the data. Templates.

Second sound data

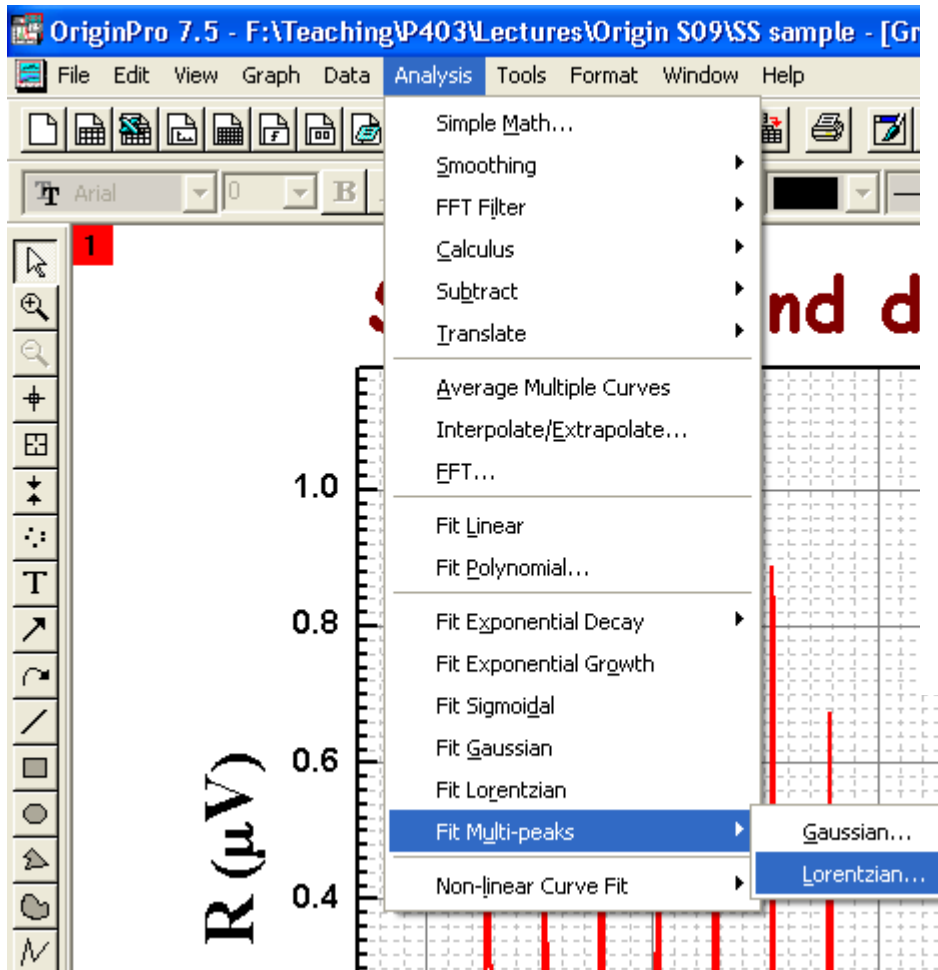


SS sample: Graph20

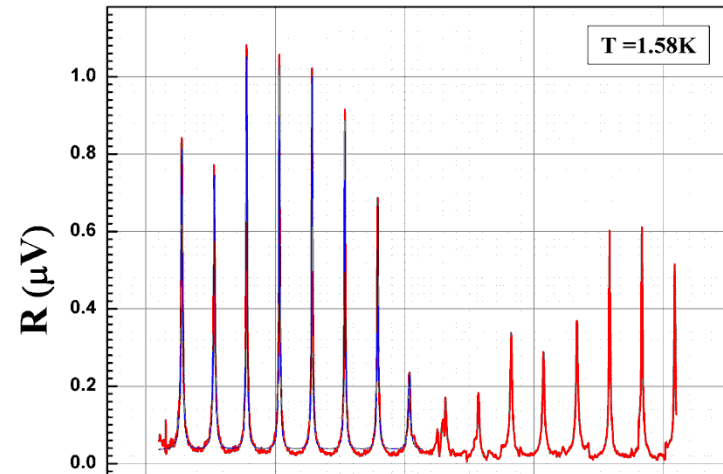
Graphical presentation of the data. Fitting etc.



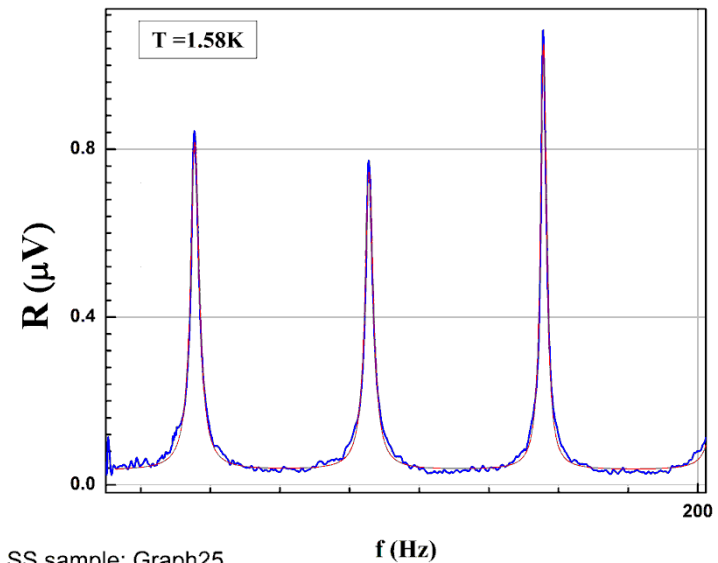
Graphical presentation of the data. Fitting etc.



Second sound data

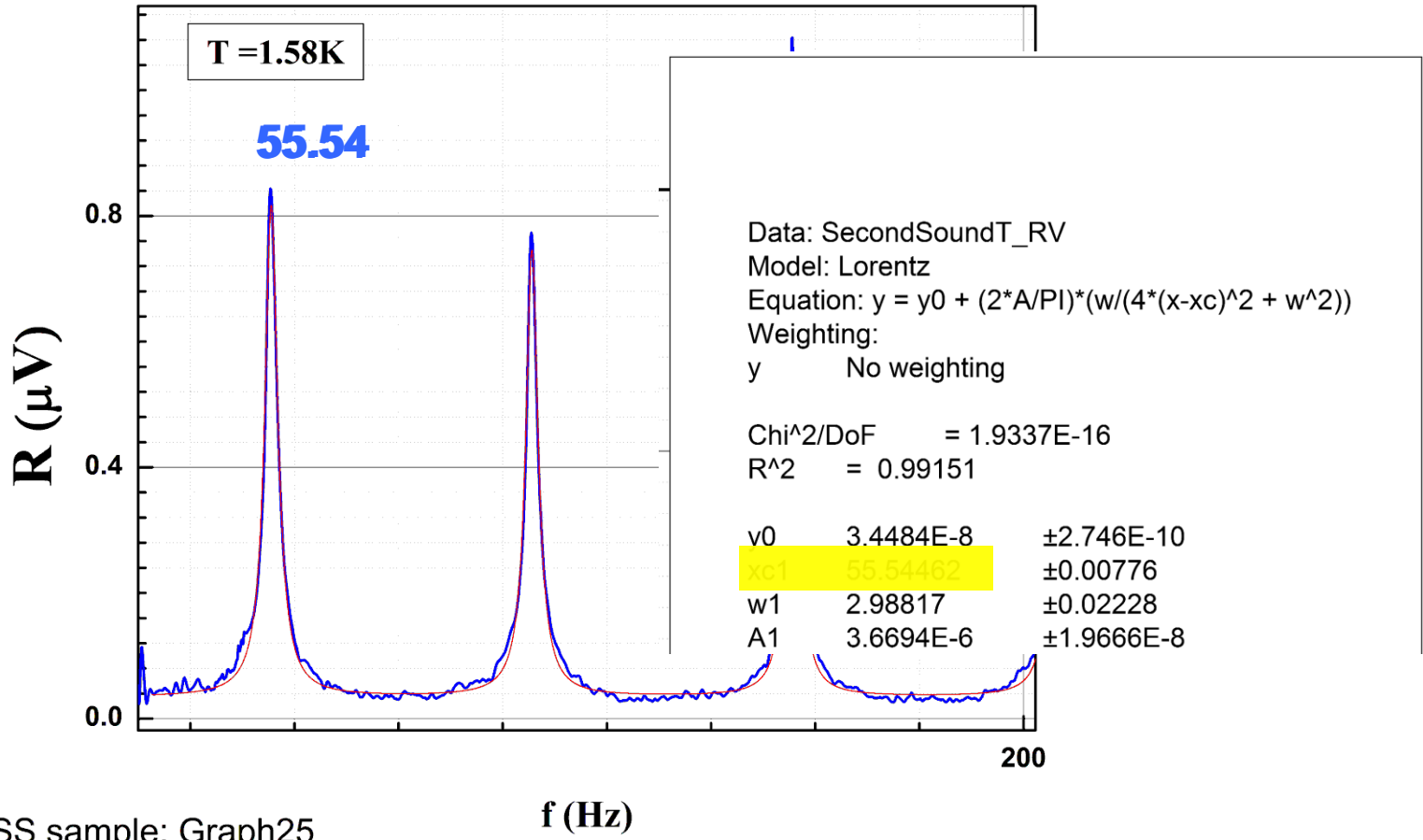


Second sound data

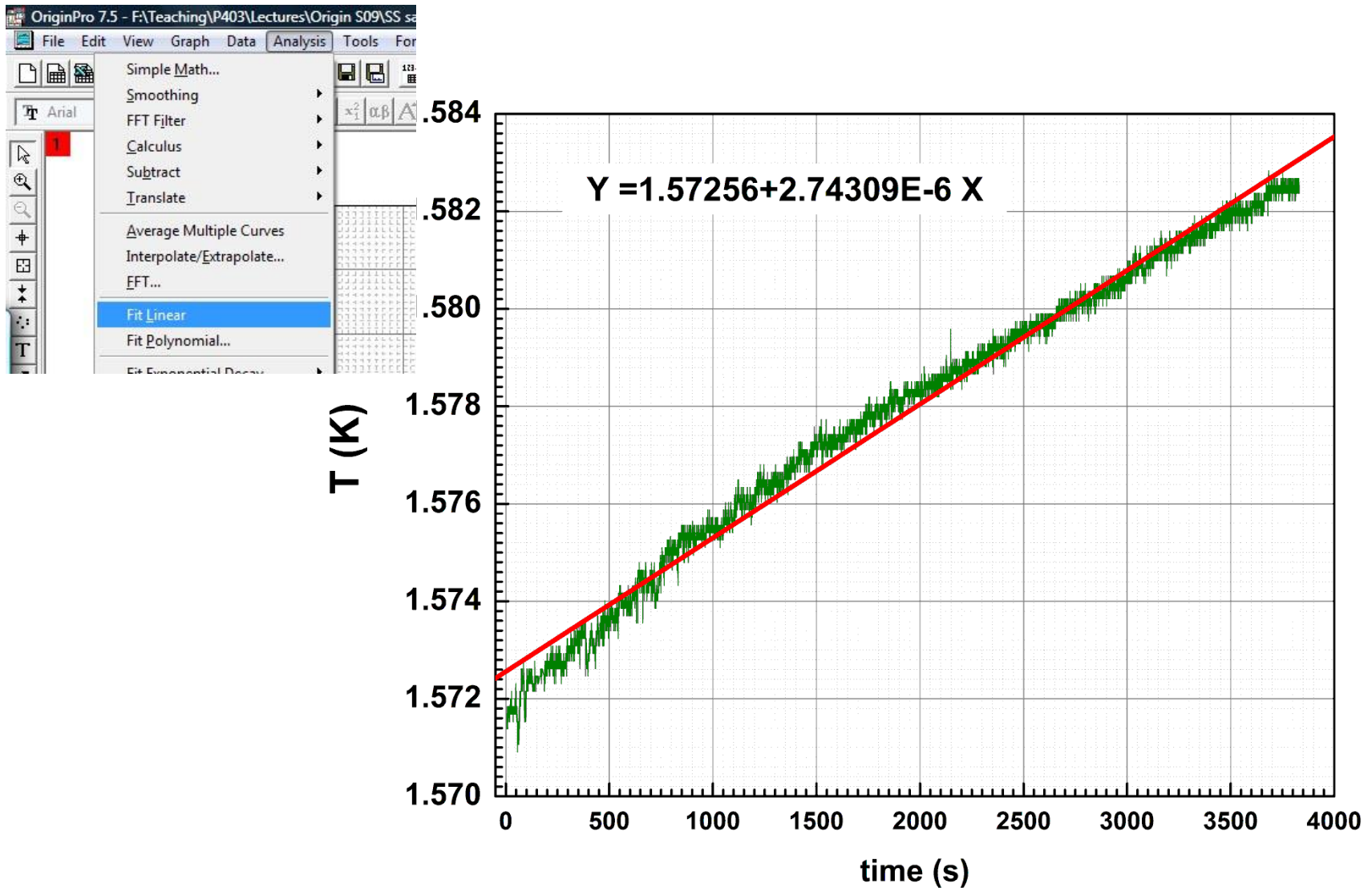


Graphical presentation of the data. Fitting etc.

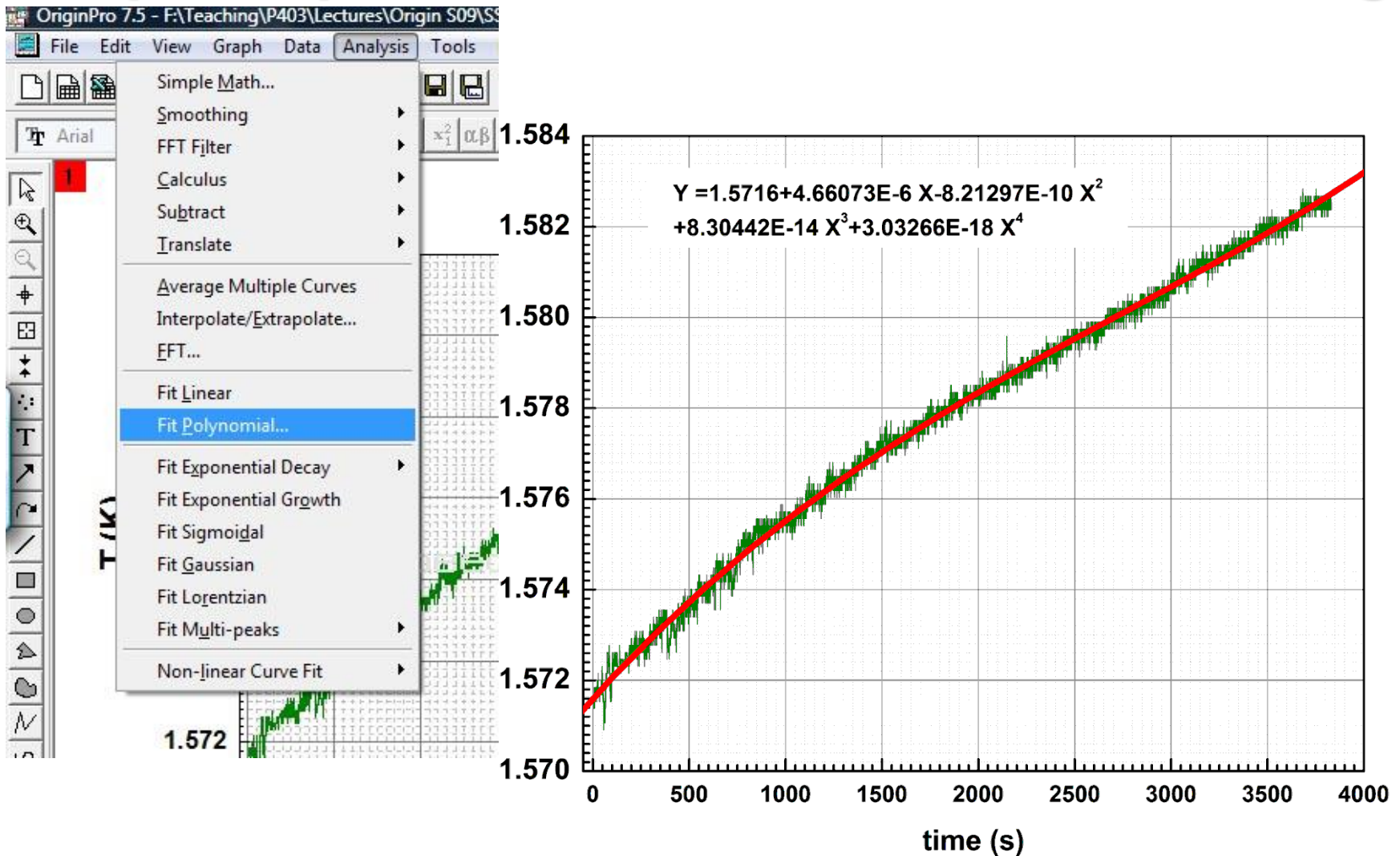
Second sound data



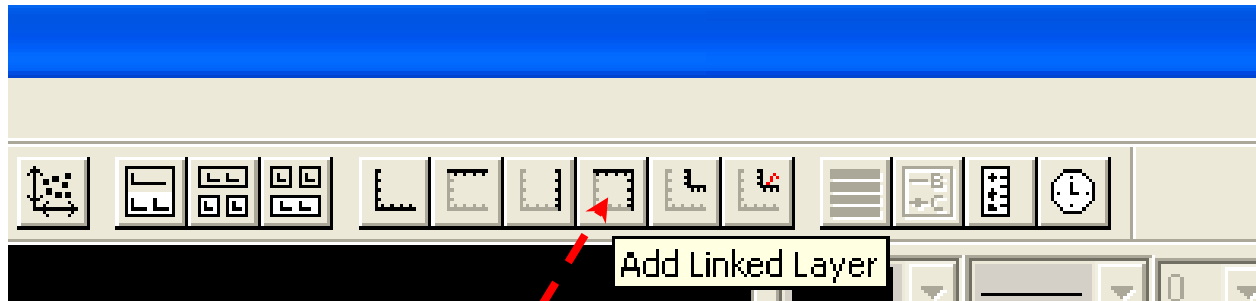
Graphical presentation of the data. Linear fitting.



Graphical presentation of the data. Linear fitting.

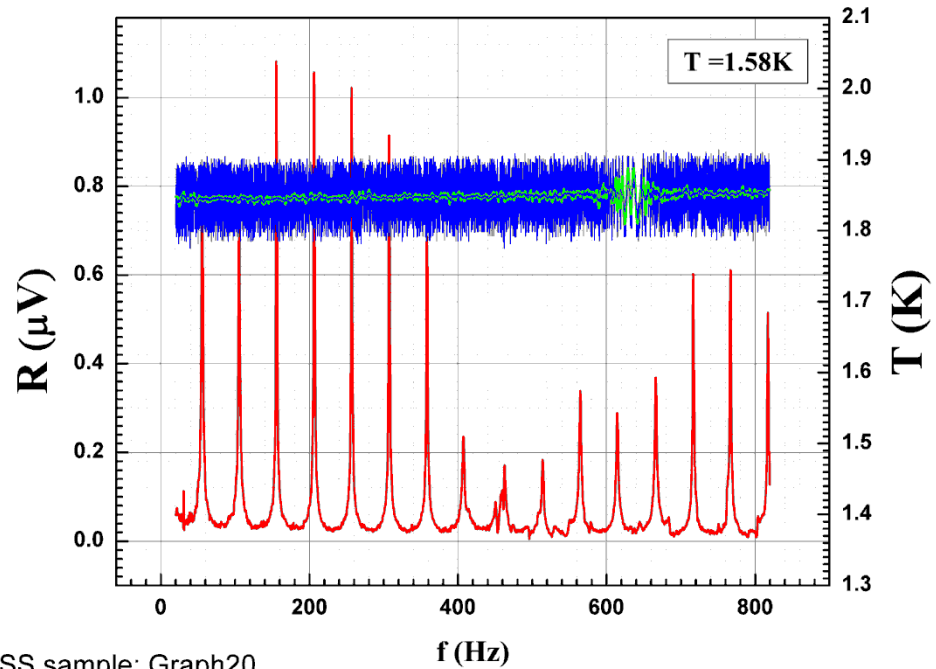


Graphical presentation of the data. 2 layers graph.

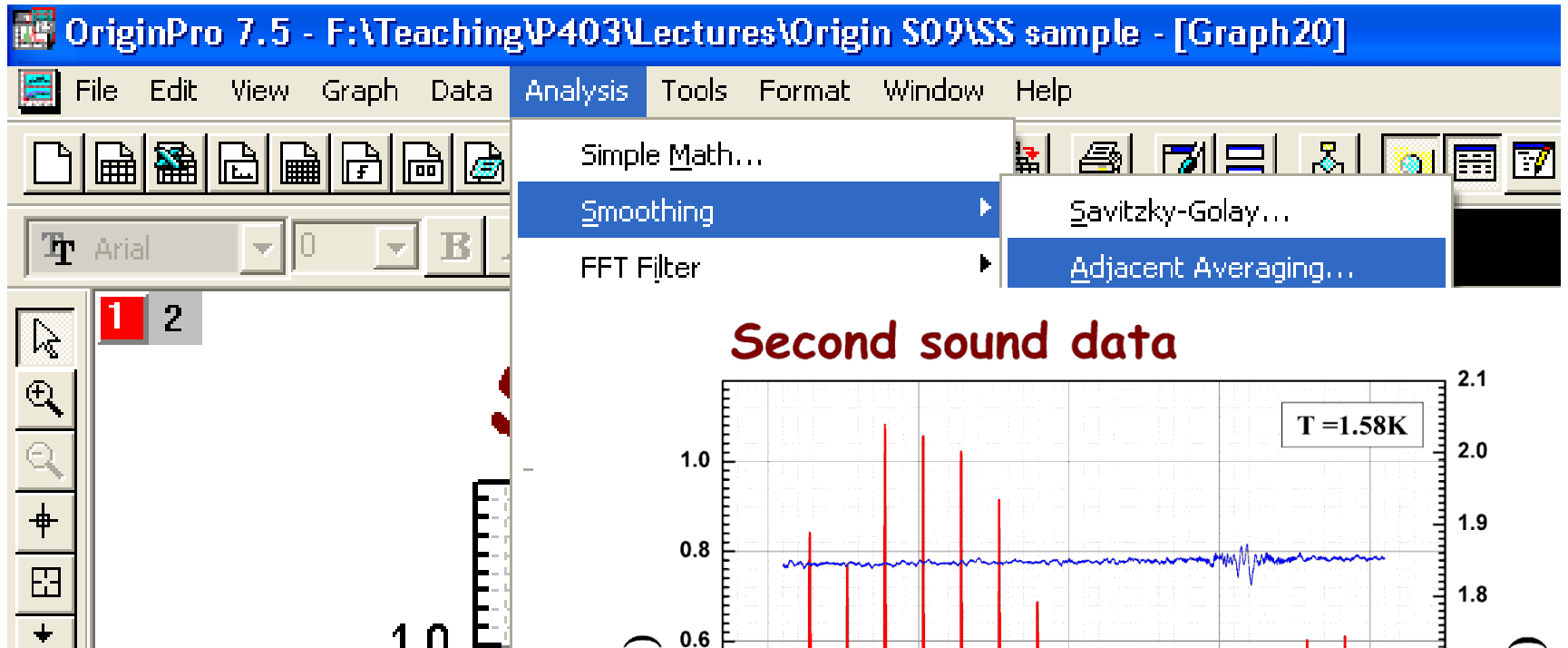


Add Layer

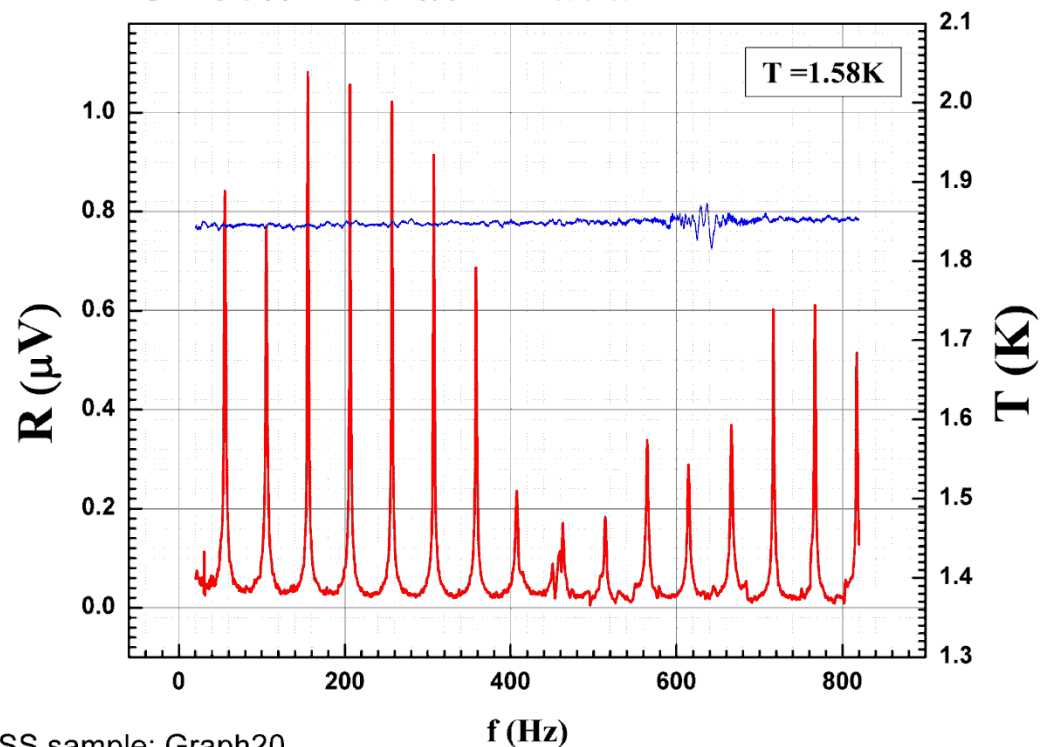
Second sound data



Graphical presentation of the data. 2 layers graph.



Second sound data



SS sample: Graph20

Worksheets. Working with data.

The screenshot displays the OriginPro 7.5 software interface. The main window shows a data table with columns: times[X], TK[Y], Pmm[Y], TpK[Y], UacV[Y], fHz[Y], XY[Y], YV[Y], and RV[Y]. A context menu is open over the TK column, with 'Statistics on Columns' selected. A dialog box titled 'Data from SecondSoundT' is shown, with 'Recalculate' and 'Advanced Statistics' options. Below the dialog is a summary table for the selected column (TK).

Col(X)	Rows(Y)	Mean(Y)	sd(yErz)	se(yErz)	CL(Y)	CU(Y)	P25(Y)	P75(Y)
1	TK	[1.8000]	1.57775	0.00302	3.37709E-5	1.57768	1.57781	1.57541
2								

At the bottom of the window, the status bar indicates: 'Calculate statistics on the selected column(s)', 'Color Publication', '2:SecondSound_TK(1-8000)', 'SecondSoundT', 'Radian', and the system tray shows the time as 10:18 PM.

Worksheets. Working with data.

The screenshot displays the OriginPro 7.5 interface with a data table. A context menu is open over the 'TK[M]' column, and the 'Set Column Values...' option is selected. The dialog box is open, showing the 'Absolute value' function and the formula 'col(TK)-273'.

times[X]	TK[M]	Pmm[M]	TPK[Y]	UacV[Y]	fHz[Y]	XV[Y]	YV[Y]	RV[Y]	
time [s]	T [K]	P [mm]	TP [K]	Uac [V]	f [Hz]	X [M]	Y [M]	R [M]	
7968	3814.75		1.8147	5	81	816.7	-1.54135E-7	3.62286E-7	3.93711E-7
7969	3815.265		1.84566	5	81	816.8	-1.27476E-7	4.04545E-7	4.24154E-7
7970	3815.765		1.89667	5	81	816.9	-8.80104E-8	4.44359E-7	4.52991E-7
7971	3816.281		1.86944	5	81	817	-3.56233E-8	4.76723E-7	4.78052E-7
7972	3816.781		1.81355	5	81	817.1	2.72413E-8	4.97097E-7	4.97843E-7
7973	3816.781		1.81355	5	81	817.2	9.49954E-8	5.01987E-7	5.10896E-7
7974	3817.297		1.8823	5	81	817.3	1.62284E-7	4.90345E-7	5.16502E-7
7975	3817.797		1.87936	5	81	817.4	2.23053E-7	4.63218E-7	5.14124E-7
7976	3818.312		1.86944	5	81	817.5	2.7416E-7	4.23288E-7	5.04318E-7
7977	3818.312		1.81355	5	81	817.6	3.12344E-7	3.75441E-7	4.8838E-7
7978	3819.84299		1.88327	5	81	817.7	3.38072E-7	3.23753E-7	4.6809E-7
7979	3820.34299		1.82937	5	81	817.8	3.52391E-7	2.72297E-7	4.45337E-7
7980	3820.85899		1.82937	5	81	817.9	3.56698E-7	2.23518E-7	4.20944E-7
7981	3821.375		1.8881	5	81	818	3.53439E-7	1.79281E-7	3.96309E-7
7982	3821.875		1.89194	5	81	818.1	3.44358E-7	1.40165E-7	3.71791E-7
7983	3822.39		1.82937	5	81	818.2	3.31087E-7	1.06986E-7	3.47943E-7
7984	3822.906		1.81355	5	81	818.3	3.15022E-7	7.86972E-8	3.24703E-7
7985	3823.406		1.90876	5	81	818.4	2.97909E-7	5.51811E-8	3.02976E-7
7986	3823.922		1.88714	5	81	818.5	2.80563E-7	3.58561E-8	2.82845E-7
7987	3824.422		1.81355	5	81	818.6	2.63683E-7	2.06056E-8	2.64487E-7
7988	3824.937		1.82492	5	81	818.7	2.47501E-7	8.84762E-9	2.47659E-7
7989	3825.453		1.90043	5	81	818.8	2.32017E-7	0	2.32017E-7
7990	3825.953		1.86029	5	81	818.9	2.17698E-7	-6.75212E-9	2.17803E-7
7991	3826.46799		12.21198	1.79826	819	819	2.0431E-7	-1.16416E-8	2.04641E-7
7992	3826.98399		14.14102	1.84031	819.1	819.1	1.92203E-7	-1.50177E-8	1.92789E-7
7993	3827.48399		16.0699	1.87838	819.2	819.2	1.81143E-7	-1.7346E-8	1.81972E-7
7994	3828		13.82822	1.83378	819.3	819.3	1.71015E-7	-1.89758E-8	1.72065E-7

Set Column Values

Abs(x): Absolute value

For row (i) Auto to Auto

abs() Add Function

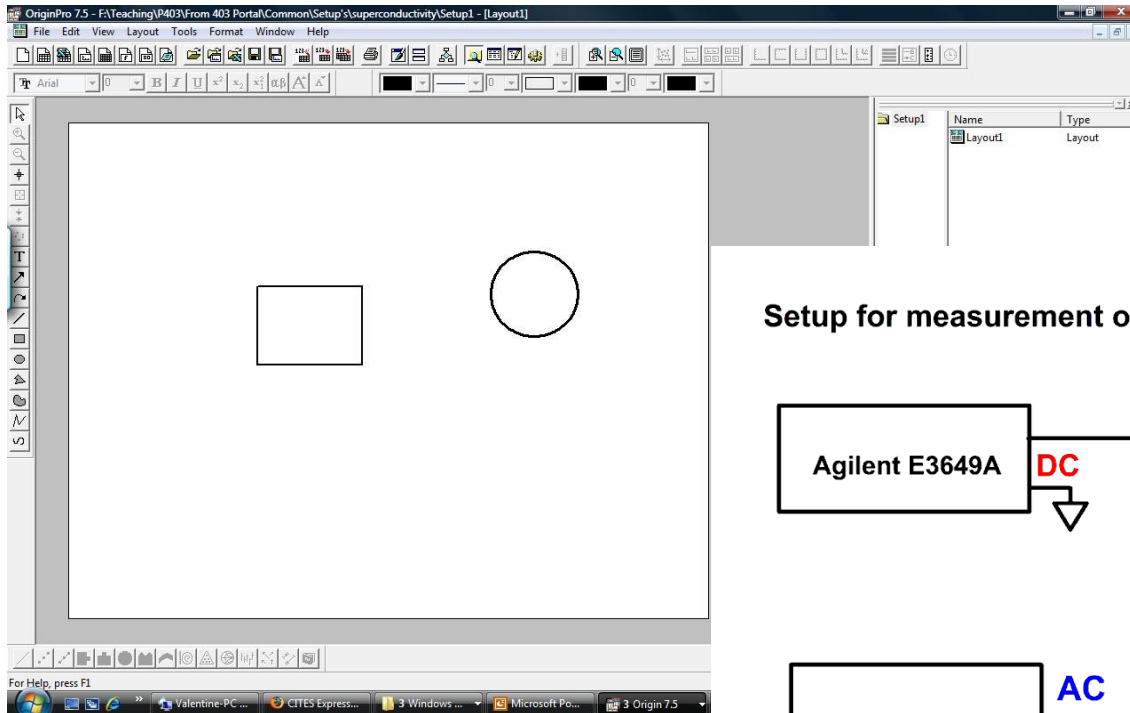
col(TK) Add Column

Co(TK)=

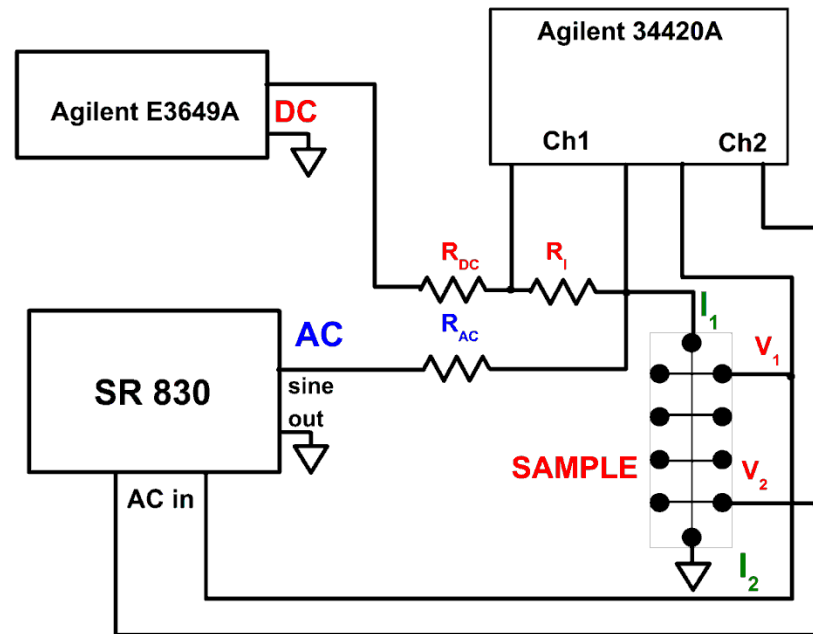
col(TK)-273

AutoUpdate OK Cancel

Layouts.



Setup for measurement of s/c properties



Origin at UIUC Webstore and OriginLab site.

WEBSTORE
Urbana-Champaign • Chicago • Springfield

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"Yet again Origin and OriginPro upholds its foremost status as the best purposeful and all-embracing data analysis and graphing software on the market. Although other software packages exist, few are as straightforward to use, flexible, and high-quality when it comes to performing challenging data analysis or creating publication superior graphs."

— Keith J. Stevenson Professor of Chemistry The University of Texas at Austin



Origin 2017

File Exchange

The OriginLab File Exchange is a place to let Origin users share their Origin files or custom components with others.

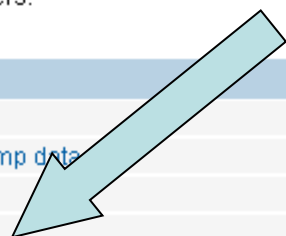
Most recently updated files:

- Separate data into blocks
- Automated analysis of pClamp data
- Cross Correlation
- Shortcut buttons
- Digitizer for Origin 7, 7.5 and 8.0 (SR2 or later)

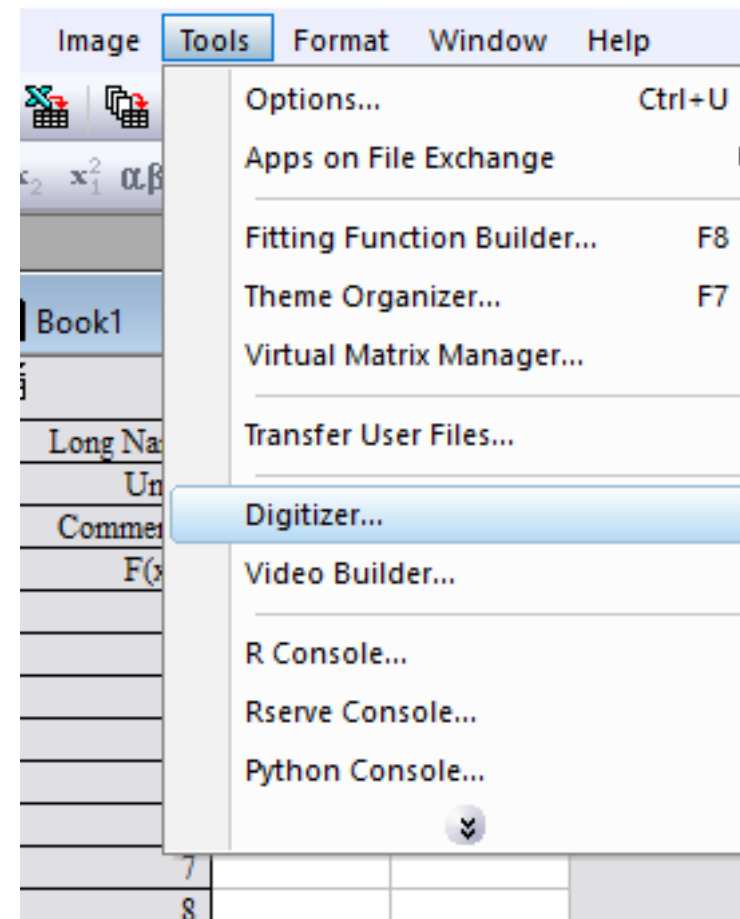
Most downloaded files (Last Month):

- Digitizer for Origin 7, 7.5 and 8.0 (SR2 or later)
- Tangents
- Peak Analysis Tool
- Extract data from graph
- MultiFit - Multiple curve fitting commands
- Cluster Tool
- Digitizer for Origin 6.0 and 6.1
- Tafel Extrapolation (Estimate Ecorr and Icorr)
- Envelope Curves
- Script Tool
- Linear Digitize Template
- Estimate Onset of Slope Change
- ONMR 7.5
- Shortcut buttons
- OAnimator
- ScanRead
- Import Princeton Instruments (*.SPE) Files

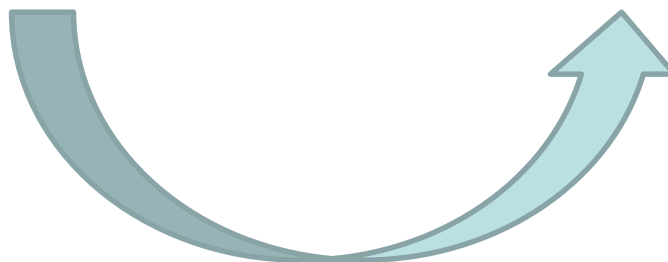
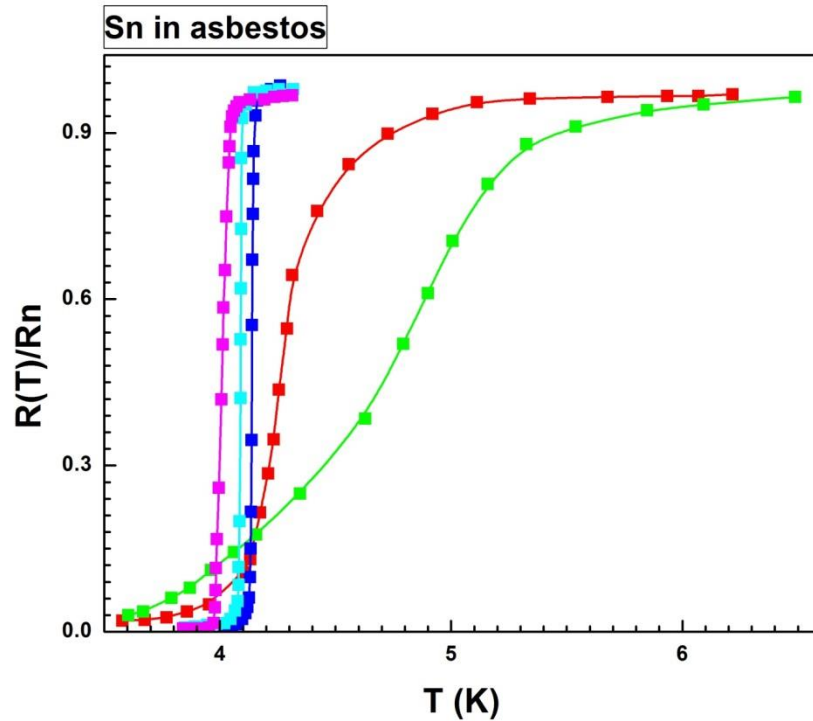
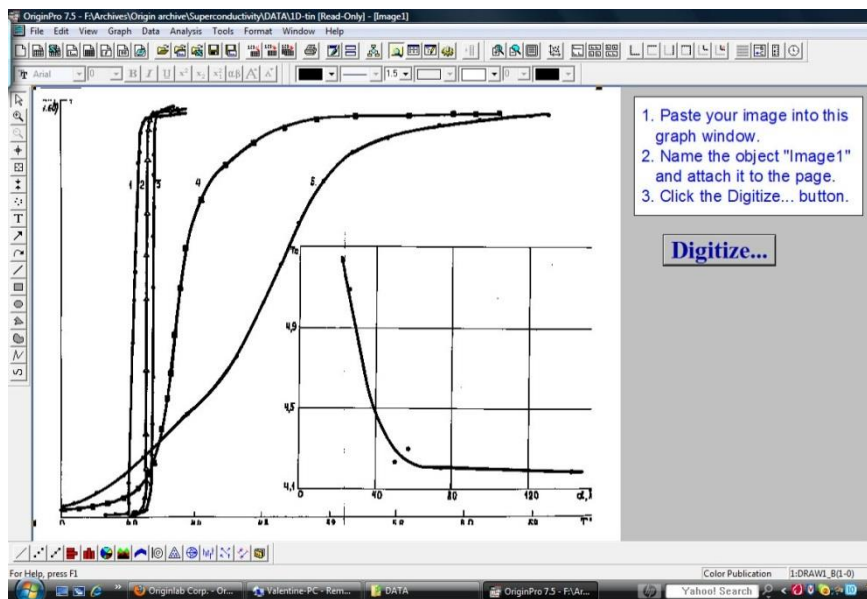
Digitizer



ents\OriginLab\2017\User Files\UNTITLED - /Folder



Origin. Using digitizer script.

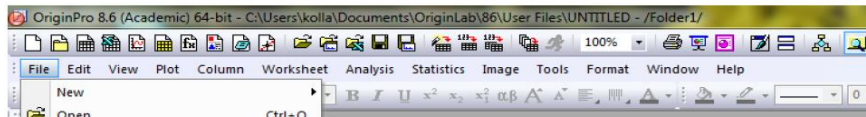


Origin manuals



Working with Origin 8.6.

Step1. Importing data



Very short and simple manual which covers only main general operations with Origin. Document located on server (`\\Phyap\portal\PHYCS403\Common\Origin manuals`).

There are (`\\Phyap\portal\PHYCS403\Common\Origin manuals`) also manuals from OriginLab.

Do not forget about Origin Help

Video Tutorials at the site of the company

OriginLab® Data Analysis and Graphing Software

Company	Products	Support	Solutions	Purchase	D
Help Center		SUPPORT : VIDEO TUTORIALS			
Video Tutorials		Video Tutorials			
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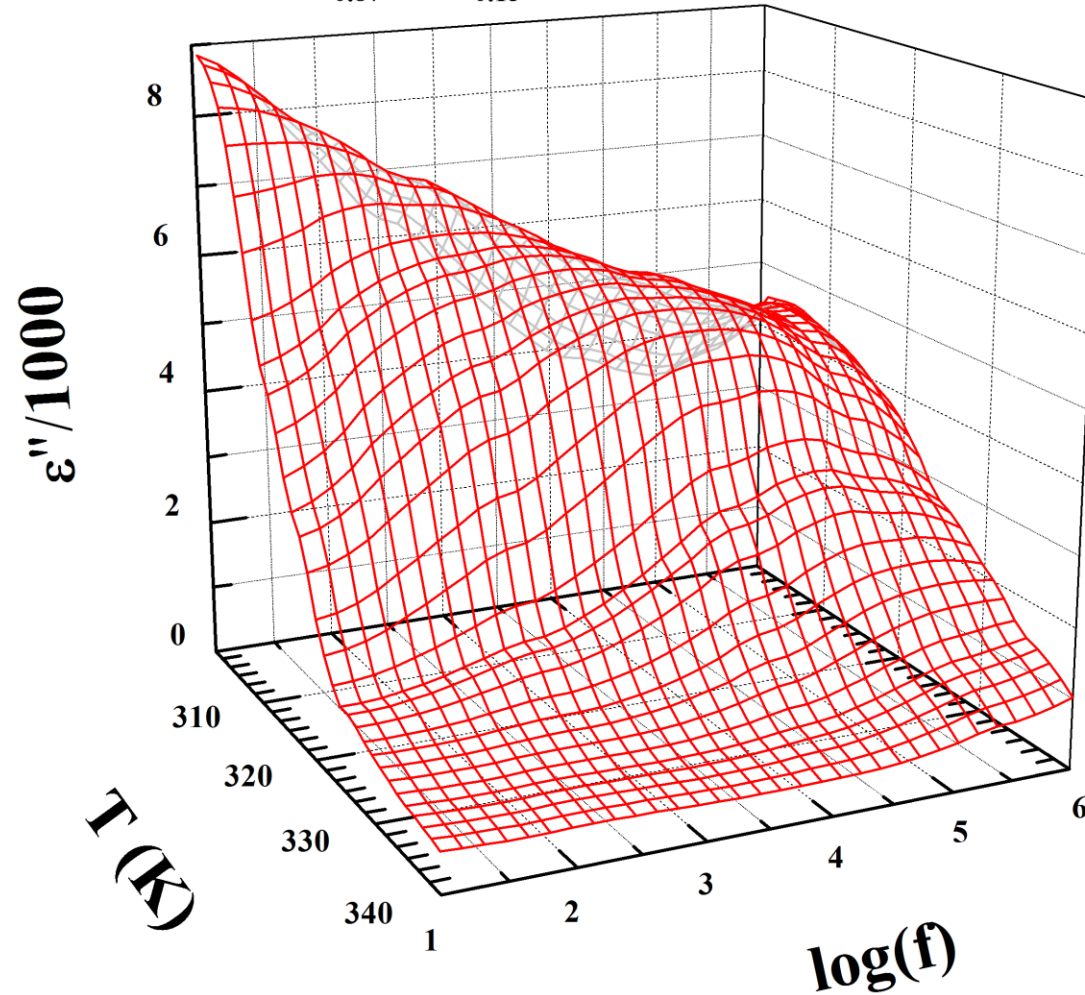
<http://www.originlab.com/index.aspx?go=SUPPORT/VideoTutorials>



Origin graphs. Examples.

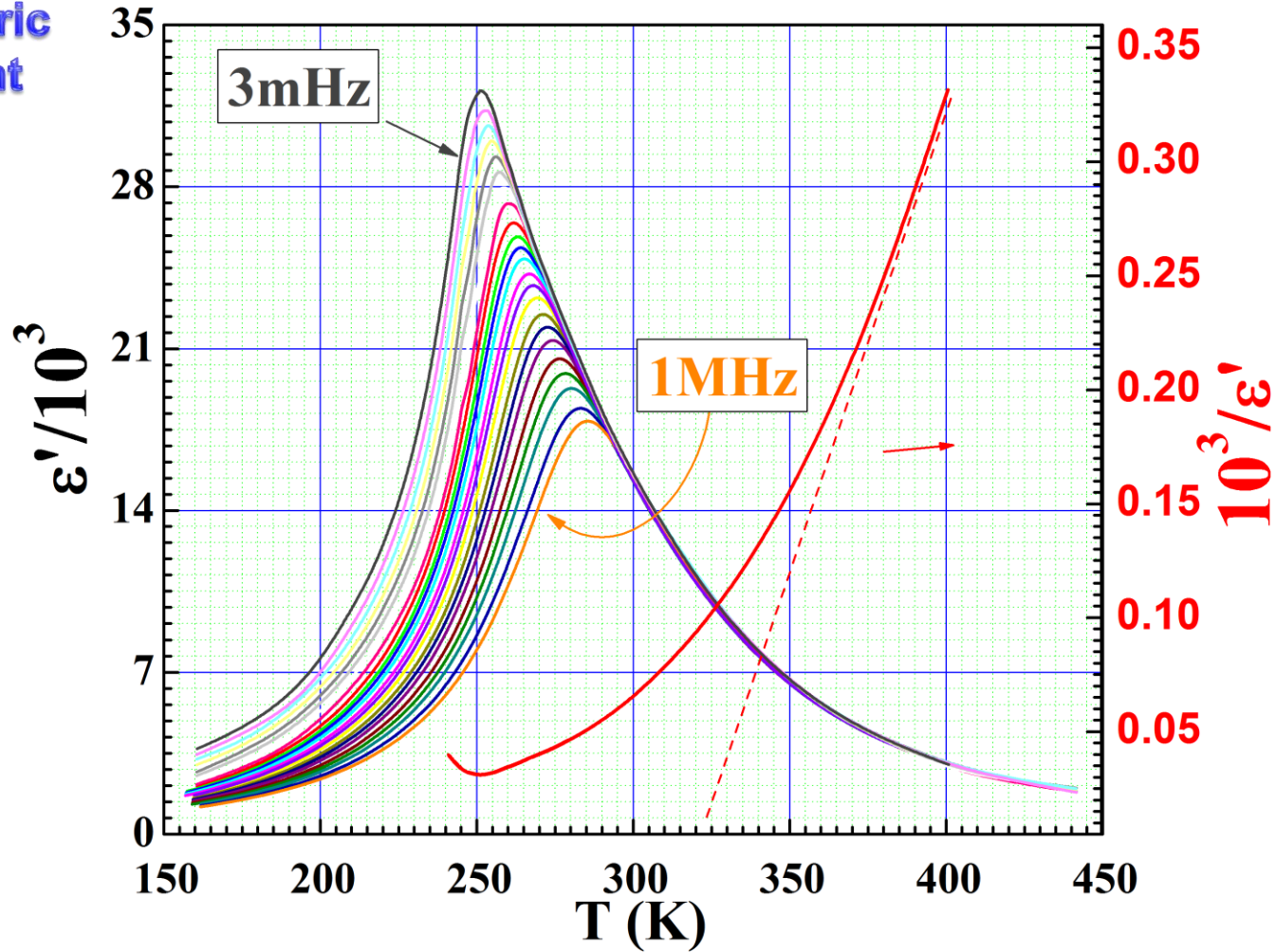
$(\text{PMN})_{0.87}(\text{PT})_{0.13}$, single crystal

Ferroelectric
Experiment



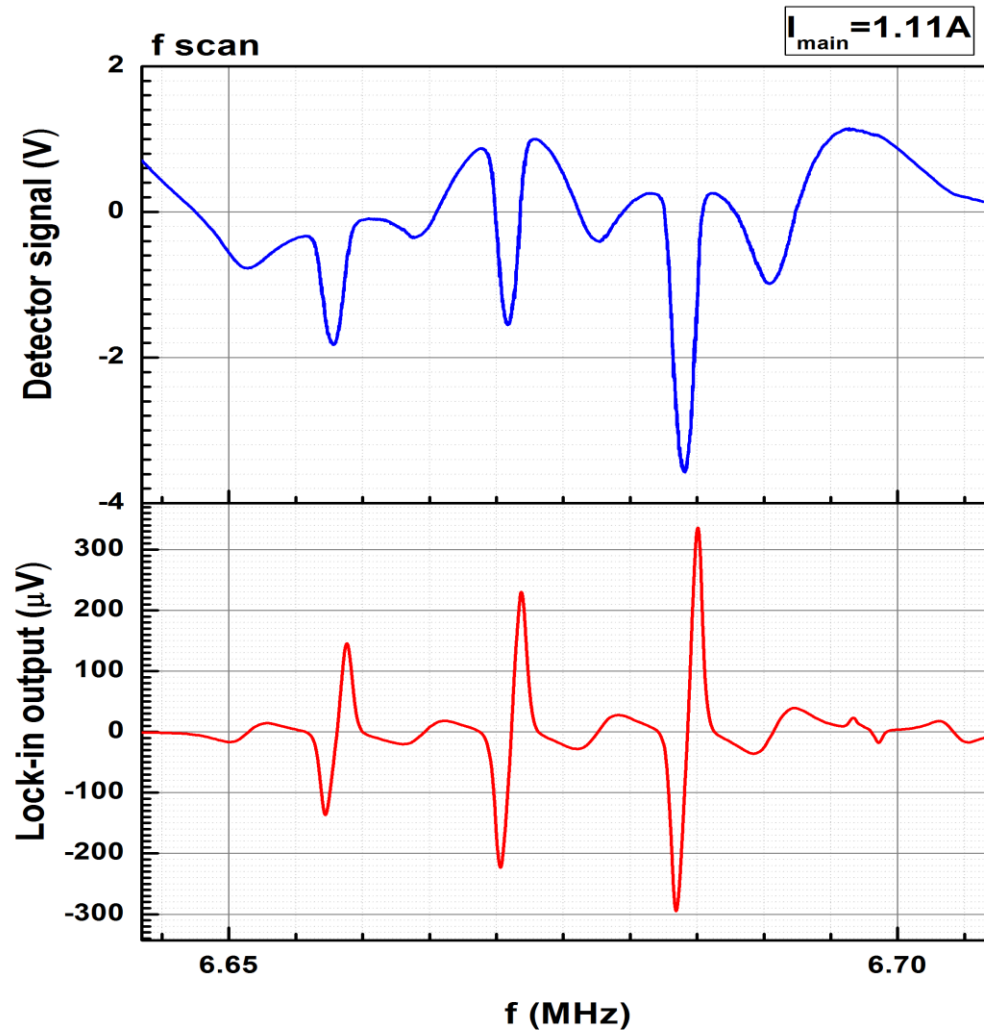
Origin graphs. Examples.

Ferroelectric
Experiment



Origin graphs. Examples.

Optical
pumping

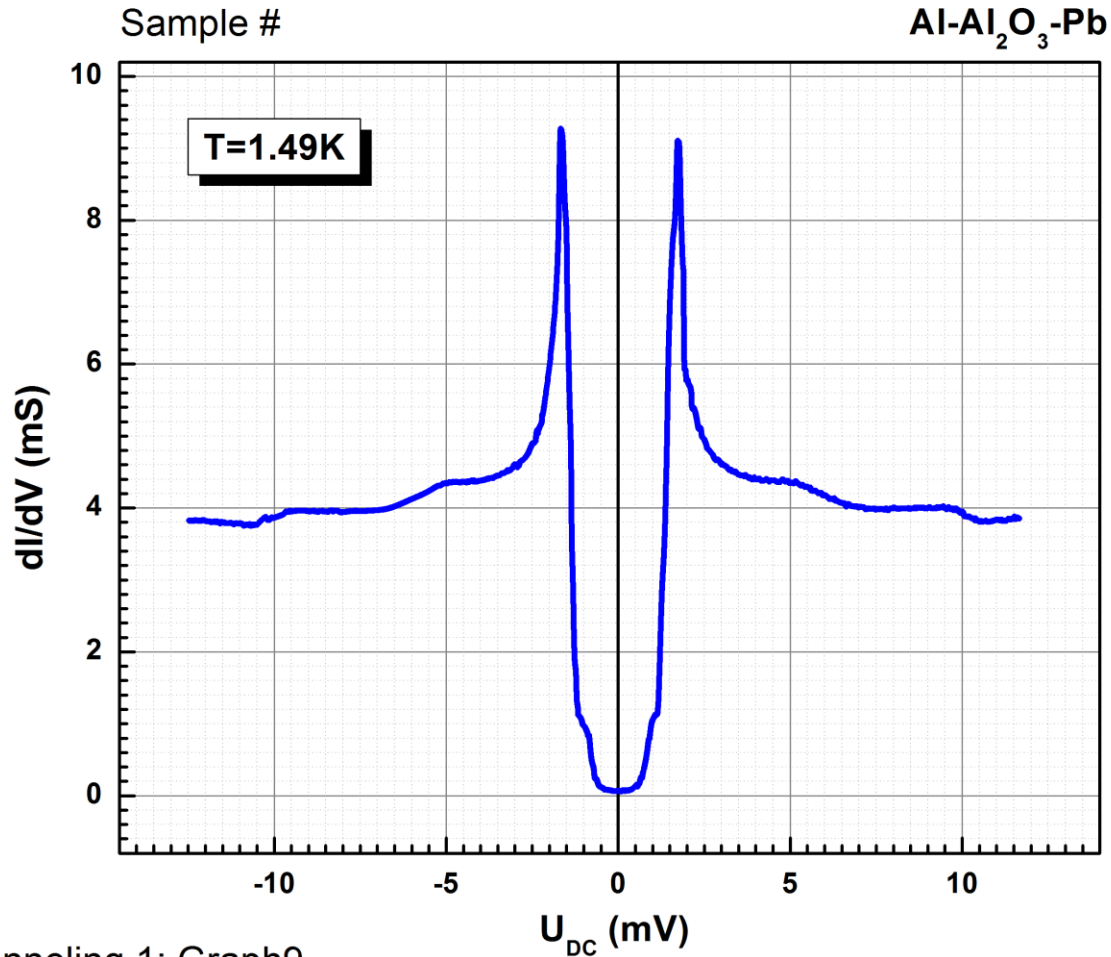


Mapping 0.5-2.5A from March 1st 2012: Graph7



Origin graphs. Examples.

Tunneling
Experiment



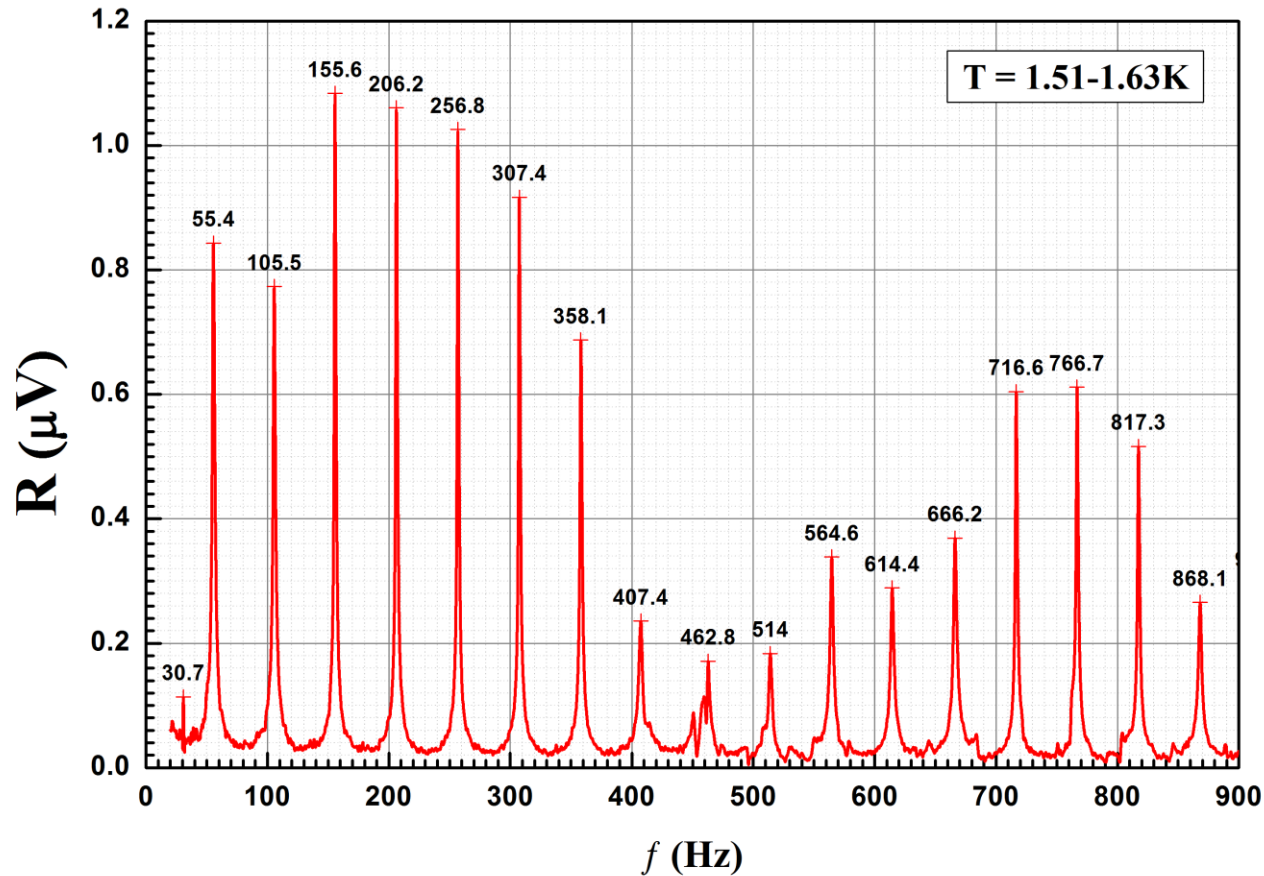
Tunneling 1: Graph9

Sample n2 run8 zoom temp 1.55K



Origin graphs. Examples.

Second
sound



Origin graphs. Examples.

Magnet mapping

