

```
1 % read data from file (unsere Messung, TbGdScO3 & DyTbScO3)
2 tempsMeas=dlmread('Messdaten\ExpDat_Tb_0.5Gd_0.5ScO3-2200-2x-3(unsere)_tab.
txt','\t','A1..A4030');
3 DyTbScO3_raw1=dlmread('Messdaten\ExpDat_Tb_0.5Gd_0.5ScO3-2200-2x-3(unsere)_tab.
txt','\t','B1..B4030');
4 DyTbScO3_raw2=dlmread('Messdaten\ExpDat_Tb_0.5Gd_0.5ScO3-2200-2x-3(unsere)_tab.
txt','\t','C1..C4030');
5 TbGdScO3_raw1=dlmread('Messdaten\ExpDat_Tb_0.5Gd_0.5ScO3-2200-2x-3(unsere)_tab.
txt','\t','D1..D4030');
6 TbGdScO3_raw2=dlmread('Messdaten\ExpDat_Tb_0.5Gd_0.5ScO3-2200-2x-3(unsere)_tab.
txt','\t','E1..E4030');
7 Al2O3_raw=dlmread('Messdaten\ExpDat_Tb_0.5Gd_0.5ScO3-2200-2x-3(unsere)_tab.
txt','\t','F1..F4030');
8
9 % read data from file (RE-Skandate alte Messung (Klimm), GdScO3 & DyScO3; K...
Klimm)
10 tempsMeasK=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'A1..A2477');
11 GdScO3_raw1=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'B1..B2477');
12 GdScO3_raw2=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'C1..C2477');
13 DyScO3_raw1=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'F1..F2477');
14 DyScO3_raw2=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'G1..G2477');
15 Al2O3_rawK1=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'D1..D2477');
16 Al2O3_rawK2=dlmread('Messdaten\ExpDat_GdScO3_DyScO3_Al2O3-Eich-6_tab.txt','\t',
'E1..E2477');
17
18 % Offset Temperatur (berechnet aus Differenz der gemessenen
19 % Schmelztemperatur T_S und dem theoret. Referenzwert für Al2O3
20 tempKorr1=198;
21 tempKorr2=125.5;
22
23 % Temperaturkalibrierung beider Messreihen (New=unsere, Old=alte(K))
24 tempsNew=tempsMeas+tempKorr1;
25 tempsOld=tempsMeasK+tempKorr2;
26
27 % Für bessere Darstellung im Plot (Verschiebung auf Ordinate)
28 GdScO3_1=GdScO3_raw1+2.65;
29 GdScO3_2=GdScO3_raw2+2.3;
30 TbGdScO3_1=TbGdScO3_raw1-1.8;
31 TbGdScO3_2=TbGdScO3_raw2-2.25;
32 DyTbScO3_1=DyTbScO3_raw1-3.05;
33 DyTbScO3_2=DyTbScO3_raw2-3.65;
34 DyScO3_1=DyScO3_raw1-4;
35 DyScO3_2=DyScO3_raw2-4.3;
36
```

```
37 % Plot aller DTA-Kurven
38 figure(1)
39 hold on
40 plot(tempsOld,GdScO3_1,'Color',[1 0 0]); % Gd
41 plot(tempsOld,GdScO3_2,'Color',[0.8 0.2 0]); % Gd
42 plot(tempsNew,TbGdScO3_1,'Color',[0.3 1 0.3]); % TbGd
43 plot(tempsNew,TbGdScO3_2,'Color',[0.4 0.8 0.2]); % TbGd
44 plot(tempsNew,DyTbScO3_1,'Color',[0 0 1]); % DyTb
45 plot(tempsNew,DyTbScO3_2,'Color',[0 0.2 0.8]); % DyTb
46 plot(tempsOld,DyScO3_1,'Color',[0 0 0]); % Dy
47 plot(tempsOld,DyScO3_2,'Color',[0.33 0.1 0.3]); % Dy
48 %line([2141 2141],[-10 10], 'Color', [1 0 0]);
49 hold off
50 axis([2090 2225 -4.7 1.35])
51 xticks(2090:20:2225)
52 yticks([])
53 xtickangle(0)
54 xlabel('Temperatur (°C)');
55 ylabel('DTA (\muV/mg)');
56
57
58
```