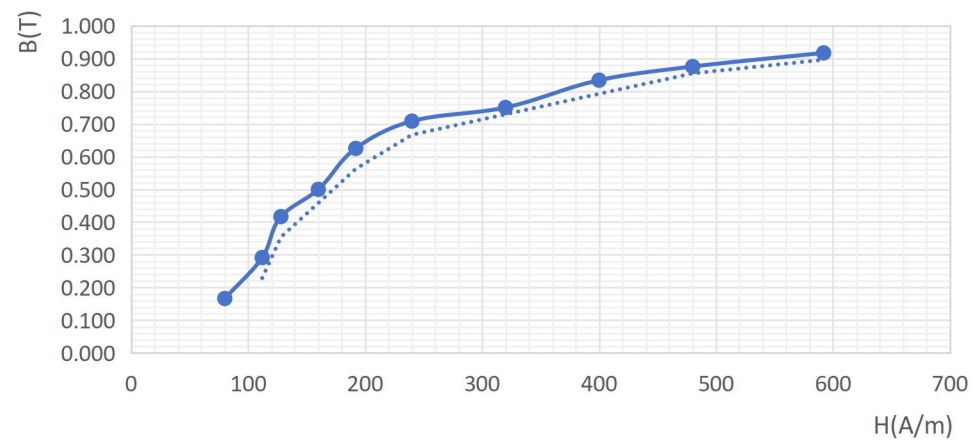
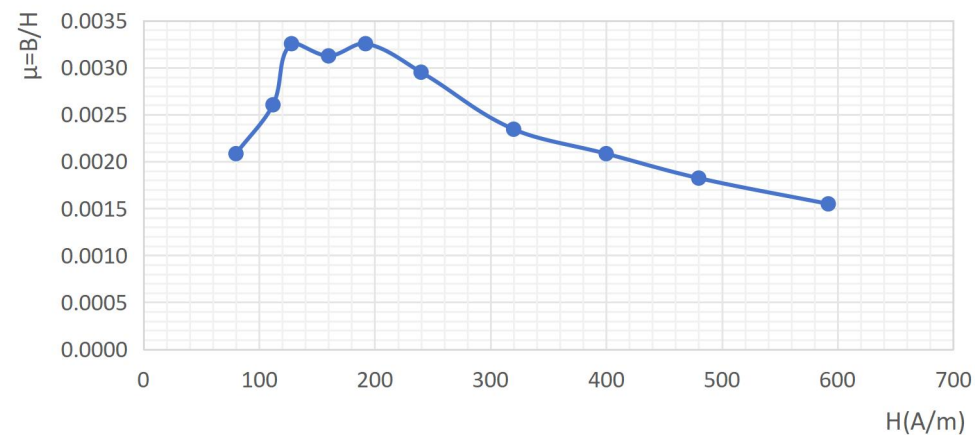


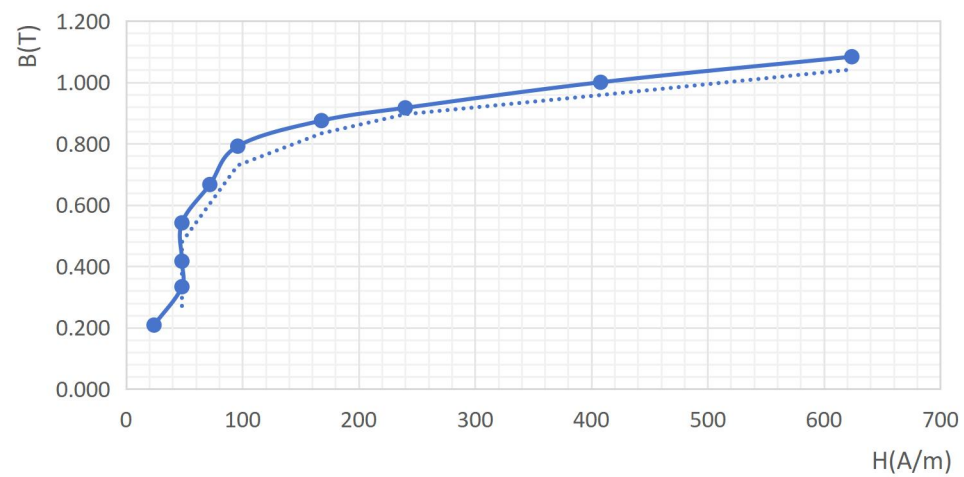
样品一 基本磁化曲线



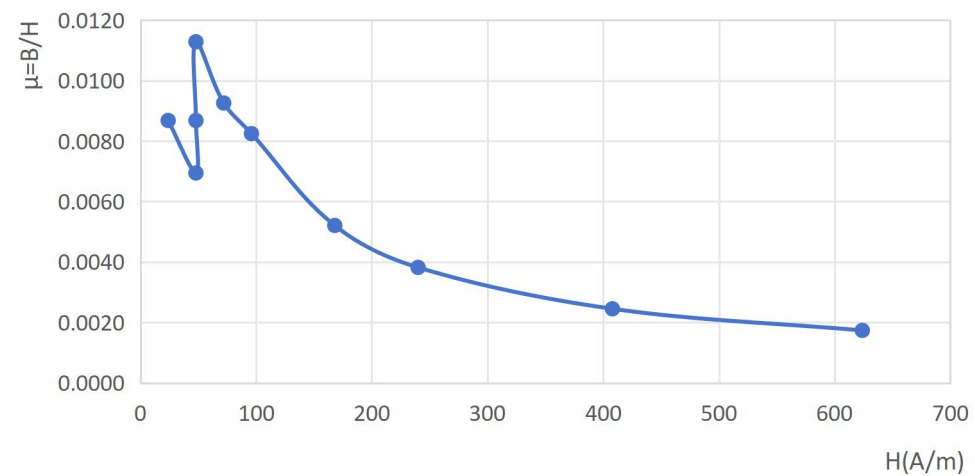
样品一 μ -H关系图



样品二 基本磁化曲线

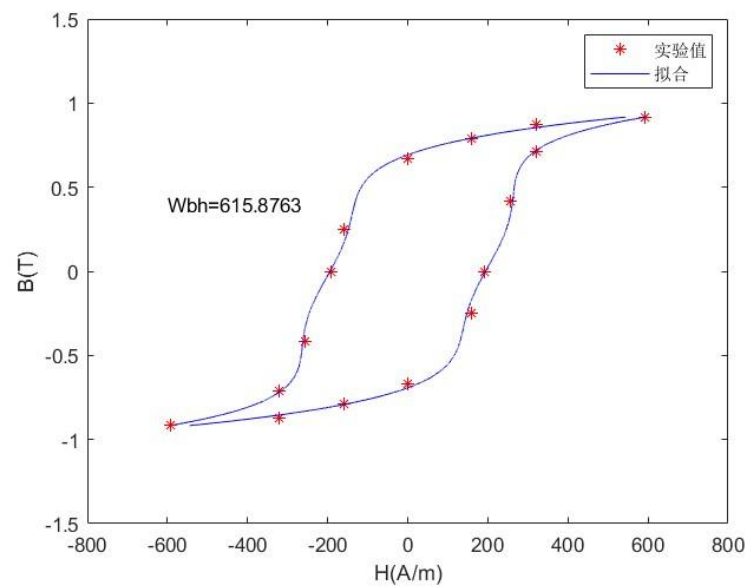
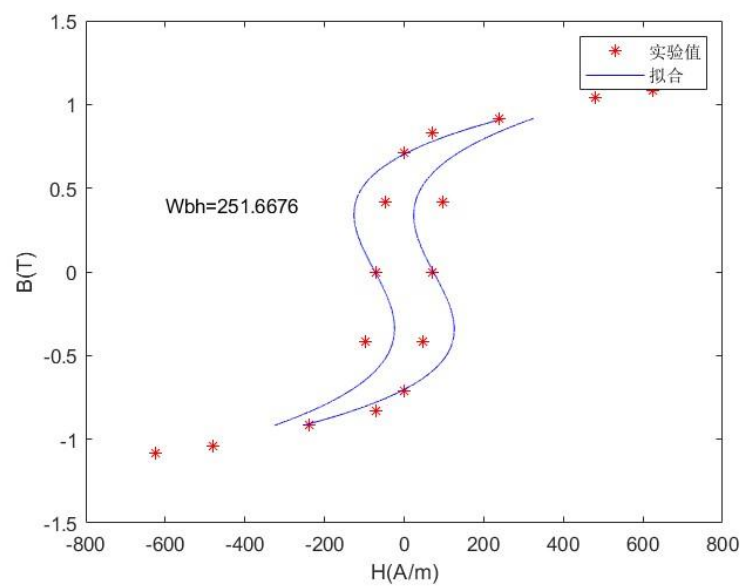
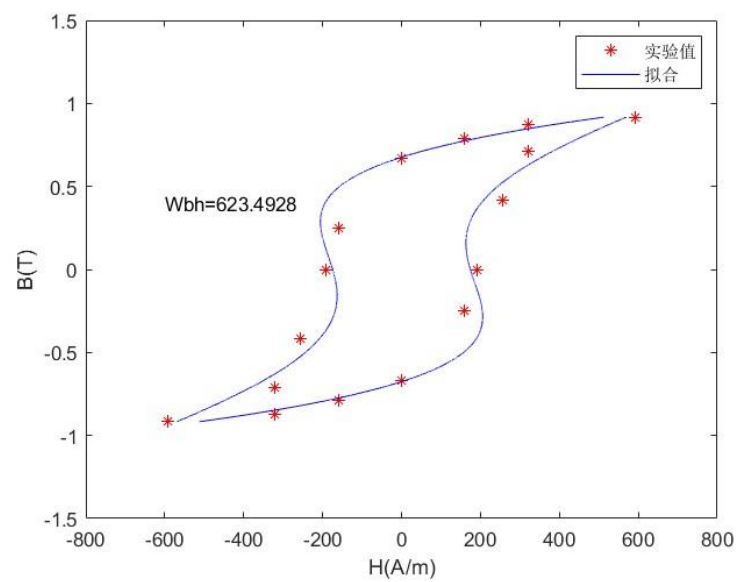
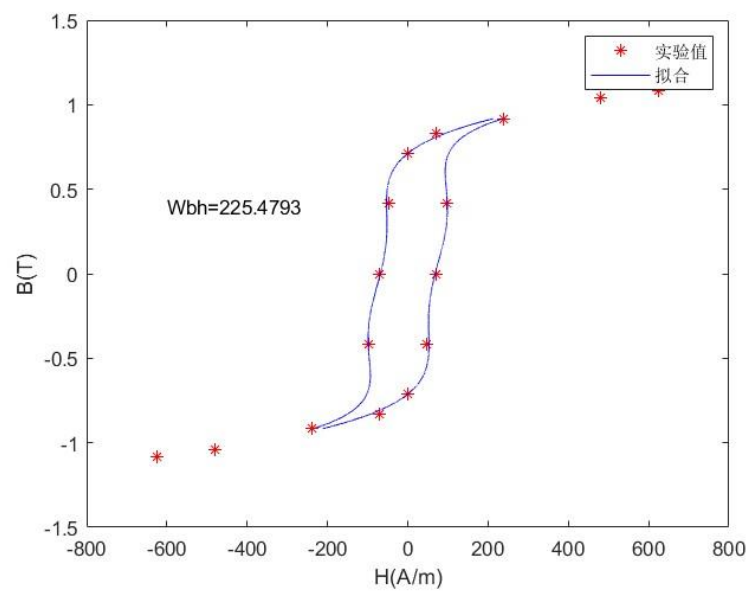


样品二 μ -H关系图



样品一	U_H (V)	U_B (mV)	H (A/m)	B (T)	样品二	U_H (V)	U_B (mV)	H (A/m)	B (T)
1	3.7	110	592	0.917	1	2.6	130	624	1.083
2	2.0	105	320	0.875	2	2.0	125	480	1.042
3	1.0	95	160	0.792	3	1.0	110	240	0.917
4	0.0	80	0	0.667	4	0.3	100	72	0.833
5	-1.0	30	-160	0.250	5	0.0	85	0	0.708
6	-1.2	0	-192	0.000	6	-0.2	50	-48	0.417
7	-1.6	-50	-256	-0.417	7	-0.3	0	-72	0.000
8	-2.0	-85	-320	-0.708	8	-0.4	-50	-96	-0.417
9	-3.7	-110	-592	-0.917	9	-1.0	-110	-240	-0.917
10	-2.0	-105	-320	-0.875	10	-2.0	-125	-480	-1.042
11	-1.0	-95	-160	-0.792	11	-2.6	-130	-624	-1.083
12	0.0	-80	0	-0.667	12	-0.3	-100	-72	-0.833
13	1.0	-30	160	-0.250	13	0.0	-85	0	-0.708
14	1.2	0	192	0.000	14	0.2	-50	48	-0.417
15	1.6	50	256	0.417	15	0.3	0	72	0.000
16	2.0	85	320	0.708	16	0.4	50	96	0.417

U (V)	U_H (V)	U_B (mV)	H (A/m)	B (T)	$\mu = B/H$	U (V)	U_H (V)	U_B (mV)	H (A/m)	B (T)	$\mu = B/H$
0.5	0.5	20	80	0.167	0.0021	0.5	0.1	25	24	0.208	0.0087
0.9	0.7	35	112	0.292	0.0026	0.9	0.2	40	48	0.333	0.0069
1.2	0.8	50	128	0.417	0.0033	1.2	0.2	50	48	0.417	0.0087
1.5	1.0	60	160	0.500	0.0031	1.5	0.2	65	48	0.542	0.0113
1.8	1.2	75	192	0.625	0.0033	1.8	0.3	80	72	0.667	0.0093
2.1	1.5	85	240	0.708	0.0030	2.1	0.4	95	96	0.792	0.0082
2.4	2.0	90	320	0.750	0.0023	2.4	0.7	105	168	0.875	0.0052
2.7	2.5	100	400	0.833	0.0021	2.7	1.0	110	240	0.917	0.0038
3.0	3.0	105	480	0.875	0.0018	3.0	1.7	120	408	1.000	0.0025
3.5	3.7	110	592	0.917	0.0015	3.5	2.6	130	624	1.083	0.0017



```

1 %样品二
2 x1=[1.083 1.042 0.917 0.833 0.708 0.417 0.000 -0.417 -0.917 -1.042 -1.083];
3 y1=[624 480 240 72 0 -48 -72 -96 -240 -480 -624]; %第一组磁滞回线实验数据
4 p1 = polyfit(x1,y1,4); %六次多项式拟合
5 xx1=0.917:-0.0001:-0.917; %B的变化区间
6 f1 = polyval(p1,xx1); %计算拟合函数下H的数值
7 plot(y1,x1,'r*',f1,xx1,'b-'); %绘制磁滞回线散点图和相应的拟合曲线
8 hold on;
9 x2=[-1.083 -1.042 -0.917 -0.833 -0.708 -0.417 0 0.417 0.917 1.042 1.083];
10 y2=[-624 -480 -240 -72 0 48 72 96 240 480 624]; %第二组磁滞回线实验数据,绘图与拟合同上
11 p2 = polyfit(x2,y2,4);
12 xx2=-0.917:0.0001:0.917;
13 f2 = polyval(p2,xx2);
14 plot(y2,x2,'r*',f2,xx2,'b-');
15 legend('实验值','拟合');
16 axis([-800 800 -1.5 1.5]);
17 xlabel('H(A/m)');
18 ylabel('B(T)');
19 By=[xx1,xx2];
20 Hx=[f1,f2]; %确定磁滞回线的图形范围
21 Wbh = polyarea(Hx,By); %计算面积
22

```

