Is=45mA;U0=2.05V															
内容	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I/mA	45.00	45.00	42.60	36.10	30.90	23.80	21.40	19.40	17.70	16.30	15.10	14.10	13.20	12.40	11.70
U/V	0.01	0.46	1.70	1.80	1.85	1.90	1.90	1.91	1.92	1.93	1.94	1.95	1.95	1.96	1.96
R/Ω	0.22	10.22	39.91	49.86	59.87	79.83	88.79	98.45	108.47	118.40	128.48	138.30	147.73	158.06	167.52
P/mW	0.45	20.70	72.42	64.98	57.17	45.22	40.66	37.05	33.98	31.46	29.29	27.50	25.74	24.30	22.93
Is=35mA;U0=2.01V															
内容	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I/mA	35.00	35.00	35.00	33.10	29.50	25.90	23.10	20.80	18.90	17.30	15.90	14.80	13.80	12.90	12.00
U/V	0.01	1.07	1.42	1.67	1.75	1.79	1.82	1.84	1.86	1.87	1.89	1.90	1.90	1.91	1.92
R/Ω	0.29	30.57	40.57	50.45	59.32	69.11	78.79	88.46	98.41	108.09	118.87	128.38	137.68	148.06	160.00
P/mW	0.35	37.45	49.70	55.28	51.63	46.36	42.04	38.27	35.15	32.35	30.05	28.12	26.22	24.64	23.04
Is=25mA;U0=1.99V															
内容	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I/mA	25.00	25.00	24.90	23.50	21.30	19.40	17.70	16.20	15.00	13.90	13.00	12.20	11.50	10.90	10.30
U/V	0.01	1.28	1.53	1.68	1.74	1.78	1.78	1.80	1.81	1.83	1.84	1.85	1.86	1.86	1.87
R/Ω	0.40	51.20	61.45	71.49	81.69	91.75	100.56	111.11	120.67	131.65	141.54	151.64	161.74	170.64	181.55
P/mW	0.25	32.00	38.10	39.48	37.06	34.53	31.51	29.16	27.15	25.44	23.92	22.57	21.39	20.27	19.26
Is=15mA;U0=1.92V															
内容	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I/mA	15.00	15.00	14.90	14.60	13.70	12.90	12.10	11.14	10.80	10.20	9.70	9.20	8.80	8.40	8.10
U/V	0.45	1.34	1.49	1.60	1.66	1.69	1.71	1.73	1.74	1.75	1.76	1.77	1.78	1.78	1.79
R/Ω	30.00	89.33	100.00	109.59	121.17	131.01	141.32	155.30	161.11	171.57	181.44	192.39	202.27	211.90	220.99
P/mW	6.75	20.10	22.20	23.36	22.74	21.80	20.69	19.27	18.79	17.85	17.07	16.28	15.66	14.95	14.50

```
clc;clear;
%数据处理
load BatteryData.mat
[group,num]=size(I);
figure(1);
for k=1:group
    subplot(group/2,2,k);
    hold on
    % 打点
    I_tmp=I(k,:);
    U_tmp=U(k,:);
    R_tmp=R(k,:);
    plot(I_tmp,U_tmp,'b*');

    %插值拟合
    x=linspace(10,I(k),100);
    %pp=csape(I_tmp,U_tmp);
    %y=ppval(pp,x);
    p=1;
    while (I_tmp(p)==I_tmp(p+1))
        p=p+1;
    end
    Interp=interp1(I_tmp(p:end),U_tmp(p:end),x,'pchip');
    plot(x,Interp,'r-');
    if (p>1)
        plot(I_tmp(1:p),U_tmp(1:p),'r-');
    end
    a=polyfit(I_tmp,U_tmp,6);
   Fitting=polyval(a,x);
    plot(x,Fitting,'g--');

    %绘图
    s=num2str(Is(k))+"mA"+"      "+num2str(U0(k))+"V";
    title(s);
    axis([10,Is(k)+5,0,U0(k)+0.5]);
    legend("数据点","多项式拟合","线性插值","Location","southwest");
    hold off
end
```