```
% Experiment 1

% A. Data
U = [1.2118 1.1962 1.1787 1.1619 1.1462 1.1257 1.1096 1.0892 1.0694 1.0490 1.0222 ...
     0.9900 0.9724 0.9439 0.9134 0.8802 0.8335 0.7849 0.7135 0.6039 ];
I = 100 : -5 : 5;

if size(U) ~= size(I)
    size(U)
    error('U I not equal')
end
% B. Pro
UFix = 1
```

```
UFix =
     1
```

```
IFix = 2*10^-1
```

```
IFix =
                    0.2
```

```
U = U .* URange
```

```
U = 1×20
                  1.2118                  1.1962                  1.1787 ···
```

```
U = U'
```

```
U = 20×1
                  1.2118
                  1.1962
                  1.1787
                  1.1619
                  1.1462
                  1.1257
                  1.1096
                  1.0892
                  1.0694
                   1.049
    ⋮
```

```
I = I .* IFix;
I = I'
```

```
I = 20×1
    20
    19
    18
    17
    16
```

```
15
14
13
12
11
 ⋮
```

```
% C. Fit
ft = fittype('poly4');
f = fit(U, I, ft);
plot(f, U, I);
xlabel('U / V')
ylabel('I / mA')
title('硅光电池暗伏安特性曲线（正向）')
```