

Plasmas

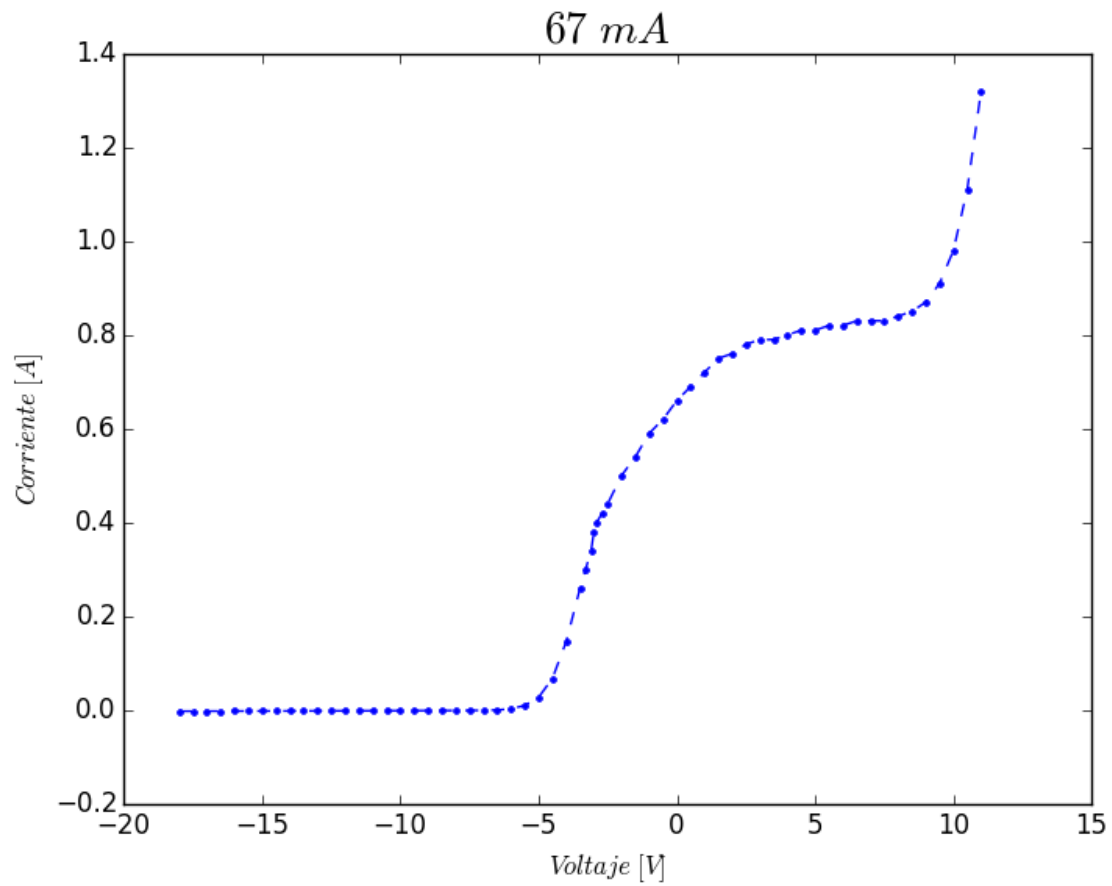
September 19, 2015

```
In [1]: using PyPlot
```

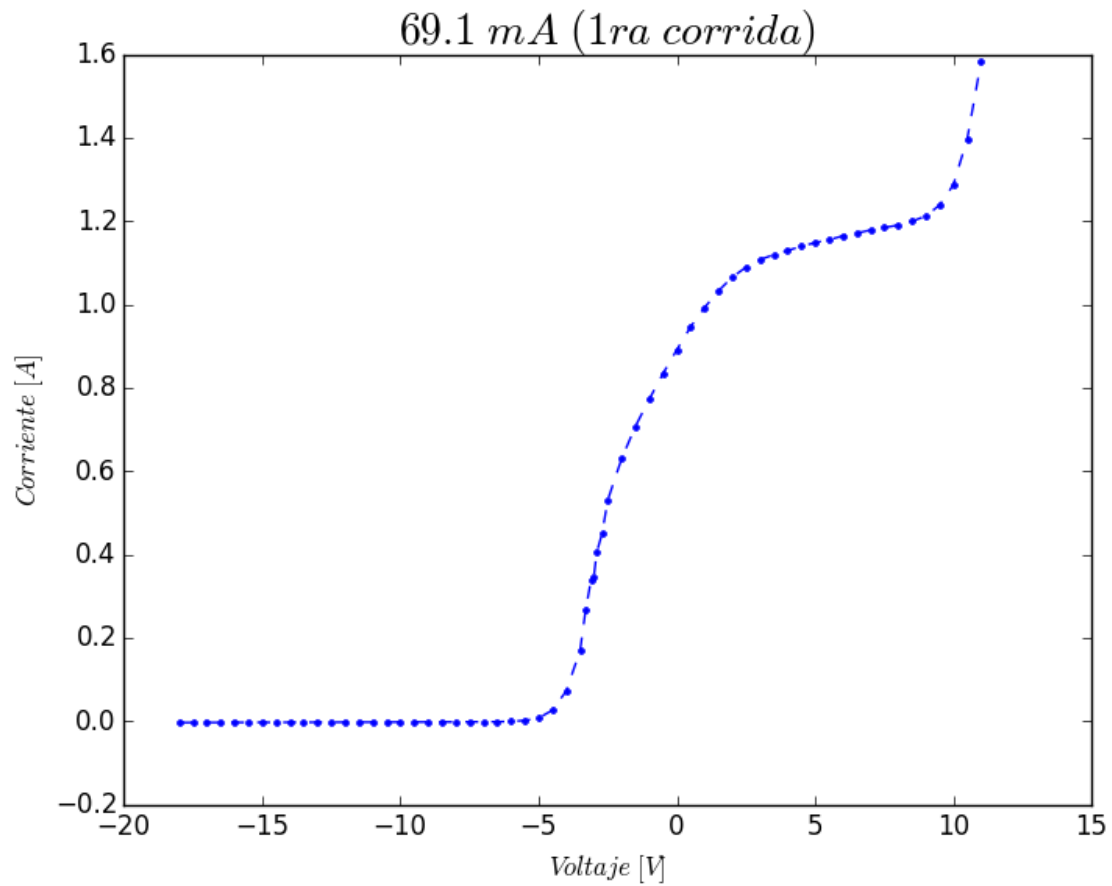
```
INFO: Loading help data...
```

```
In [31]: sixtyV = readdlm("60V.dat")
        sixtymA=readdlm("60mA.dat")
        fiftymA=readdlm("50mA.dat")
        fourtymA=readdlm("40mA.dat");
```

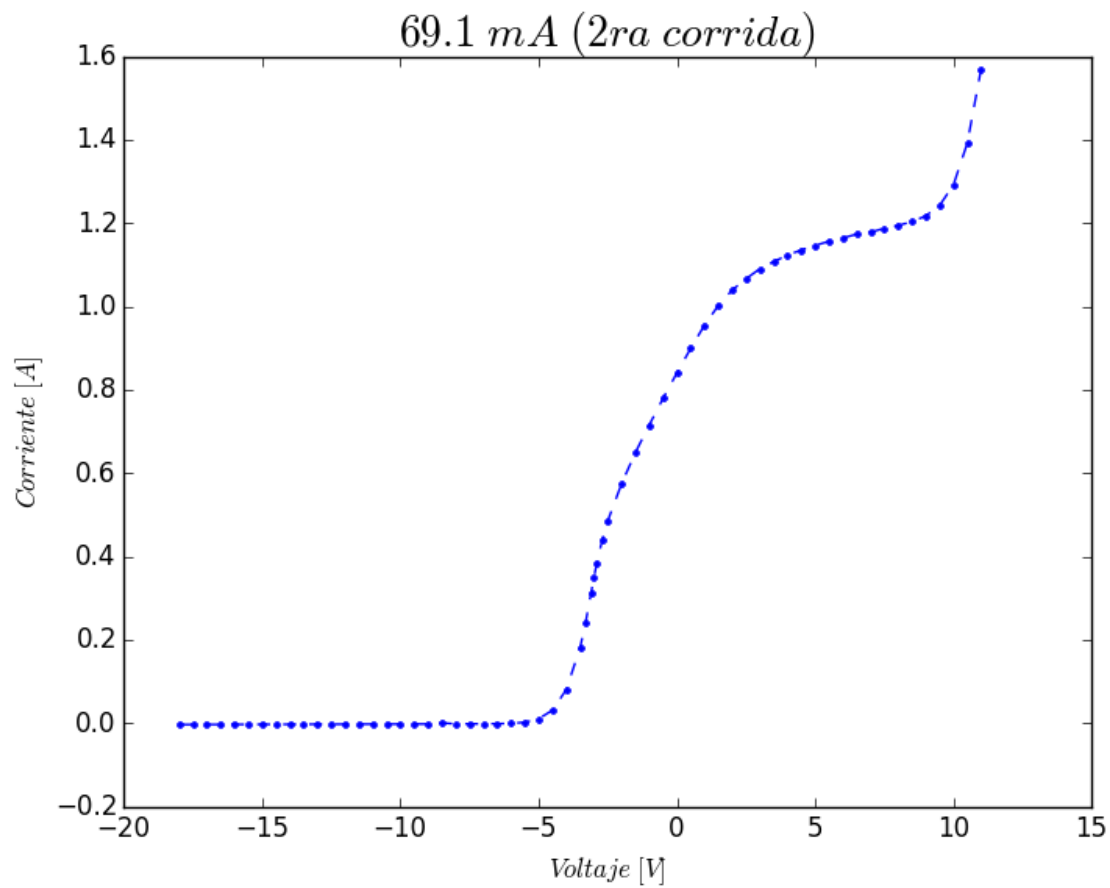
```
In [32]: V1=zeros(63)
        I1=zeros(63)
        for i in 1:63
            V1[i]=sixtyV[i,1]
            I1[i]=sixtyV[i,2]
        end
        plot(V1,I1,"b.--")
        title(L"67 \ mA ",size=20)
        xlabel(L"Voltaje \ [V]")
        ylabel(L"Corriente \ [A]");
```



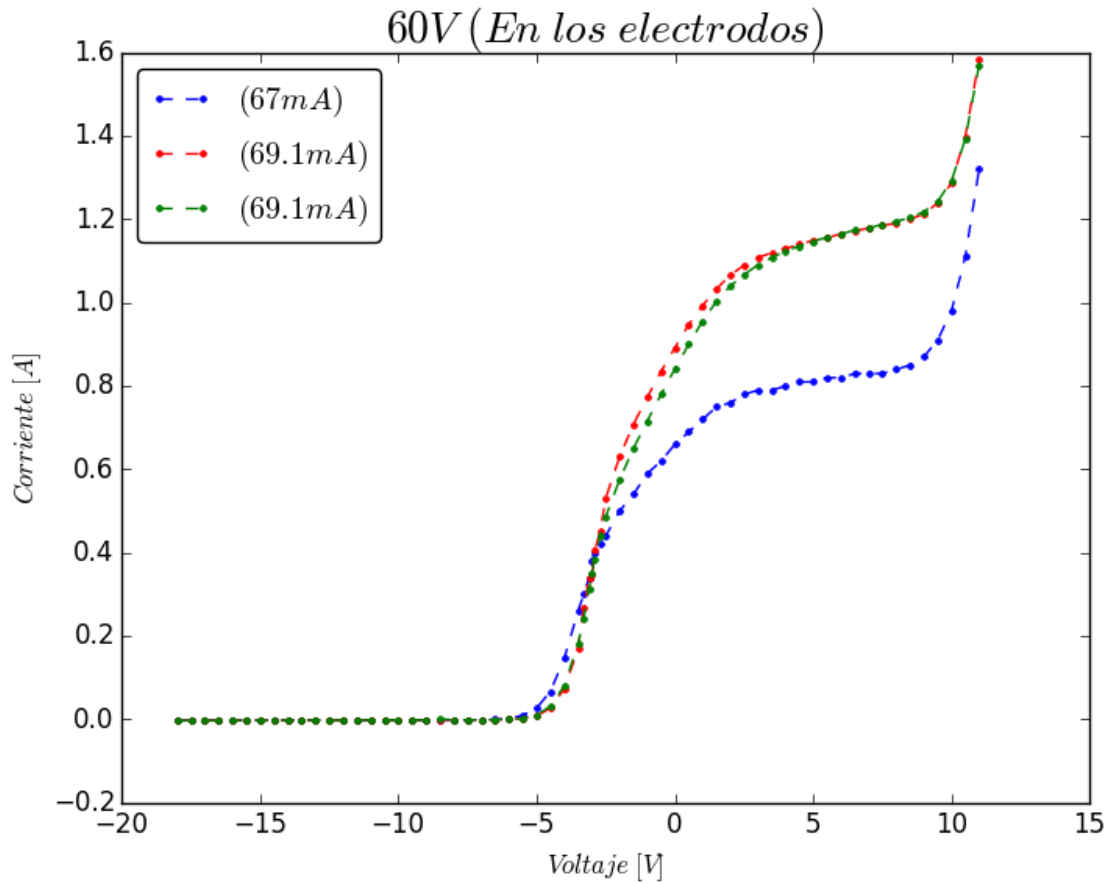
```
In [33]: V2=zeros(63)
        I2=zeros(63)
        for i in 1:63
            V2[i]=sixtyV[i,1]
            I2[i]=sixtyV[i,3]
        end
        plot(V2,I2,"b.--")
        title(L"69.1 \ mA \ (1ra \ corrida)",size=20)
        xlabel(L"Voltaje \ [V]")
        ylabel(L"Corriente \ [A]");
```



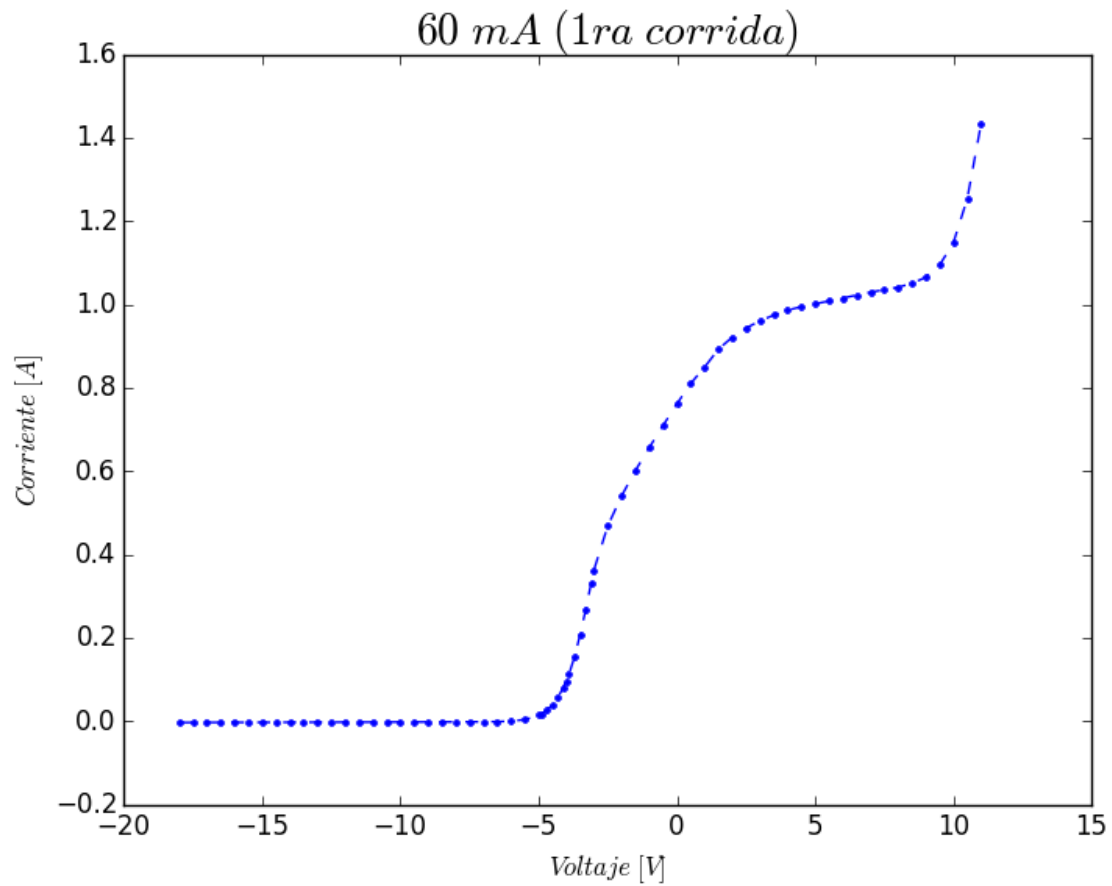
```
In [34]: V3=zeros(63)
I3=zeros(63)
for i in 1:63
    V3[i]=sixtyV[i,1]
    I3[i]=sixtyV[i,4]
end
plot(V3,I3,"b.--")
title(L"69.1 \ mA \ (2ra \ corrida)",size=20)
xlabel(L"Voltaje \ [V]")
ylabel(L"Corriente \ [A]");
```



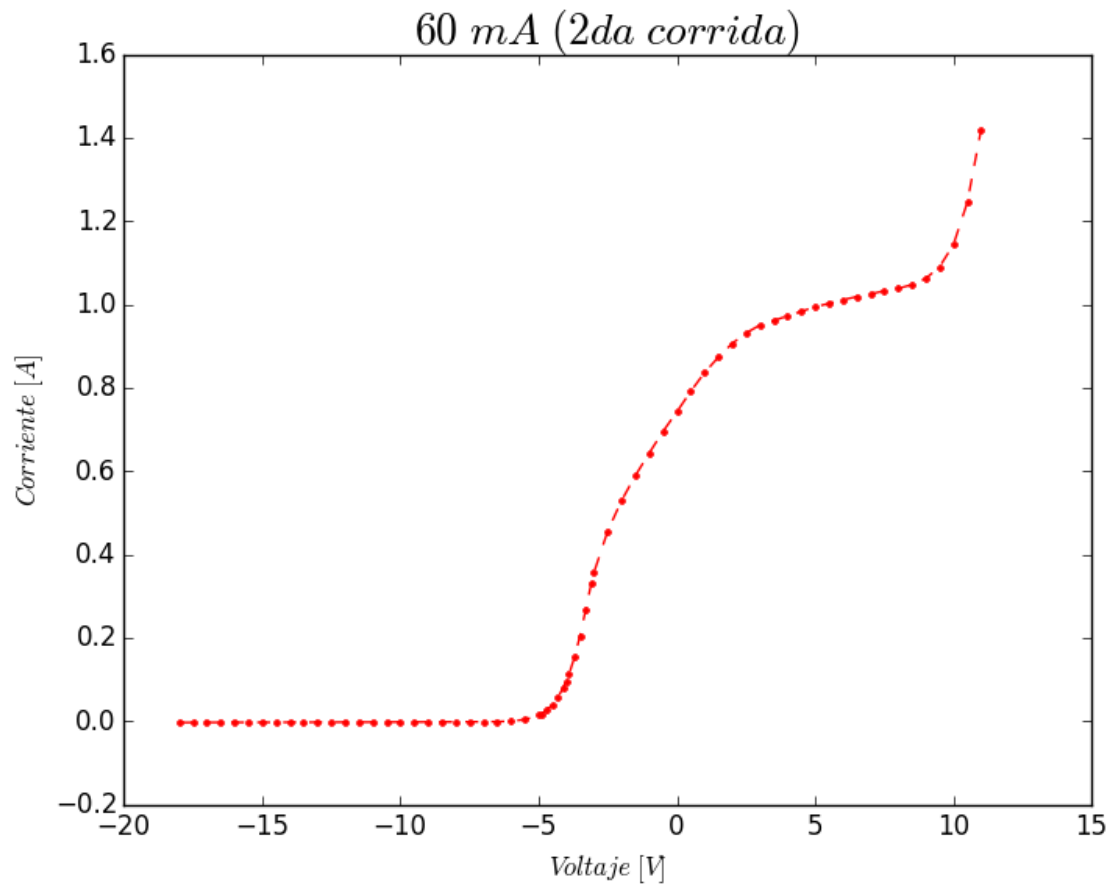
```
In [35]: plot(V1,I1,"b.--",label=L"(67mA)")
         plot(V2,I2,"r.--",label=L"(69.1mA)")
         plot(V3,I3,"g.--",label=L"(69.1mA)")
         title(L"60V \ (En \ los \ electrodos)",size=20)
         legend(loc="best",fancybox="true")
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```



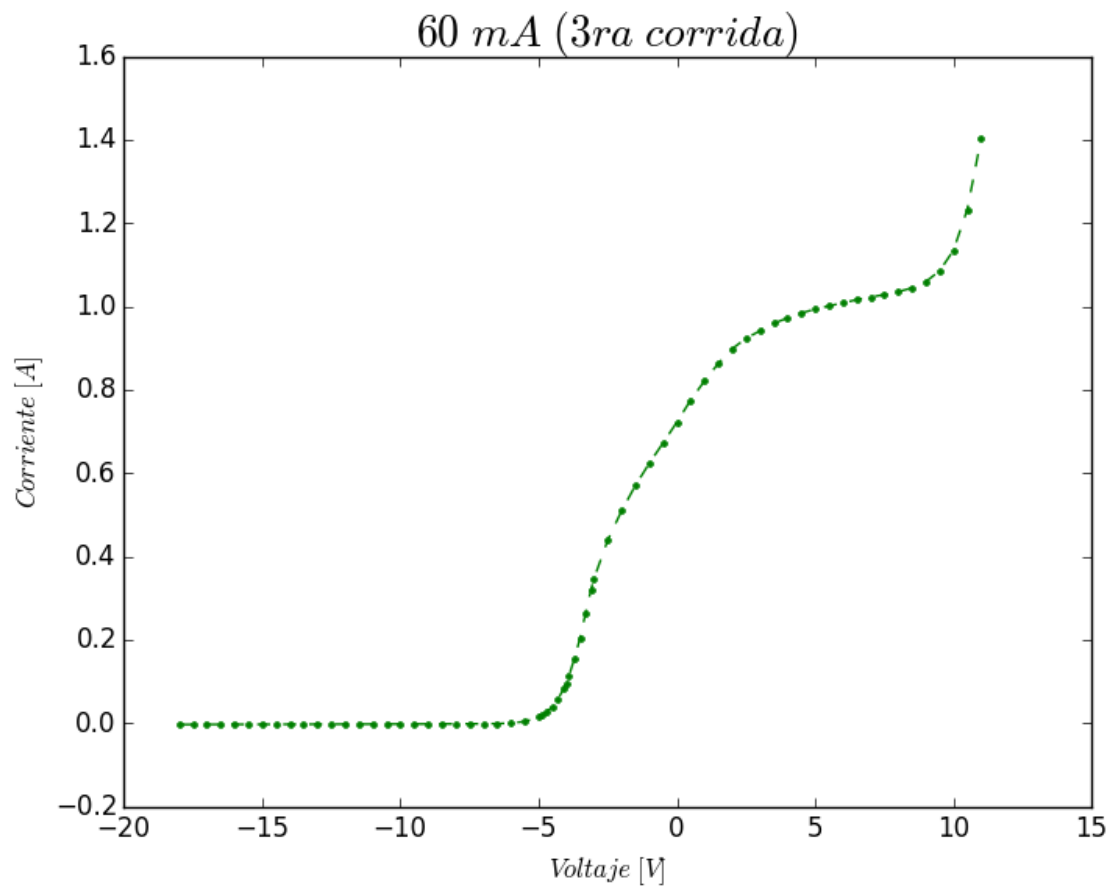
```
In [36]: V1=zeros(67)
I1=zeros(67)
for i in 1:67
    V1[i]=sixtymA[i,1]
    I1[i]=sixtymA[i,2]
end
plot(V1,I1,"b.--")
title(L"60 \ mA \ (1ra \ corrida)",size=20)
xlabel(L"Voltaje \ [V]")
ylabel(L"Corriente \ [A]");
```



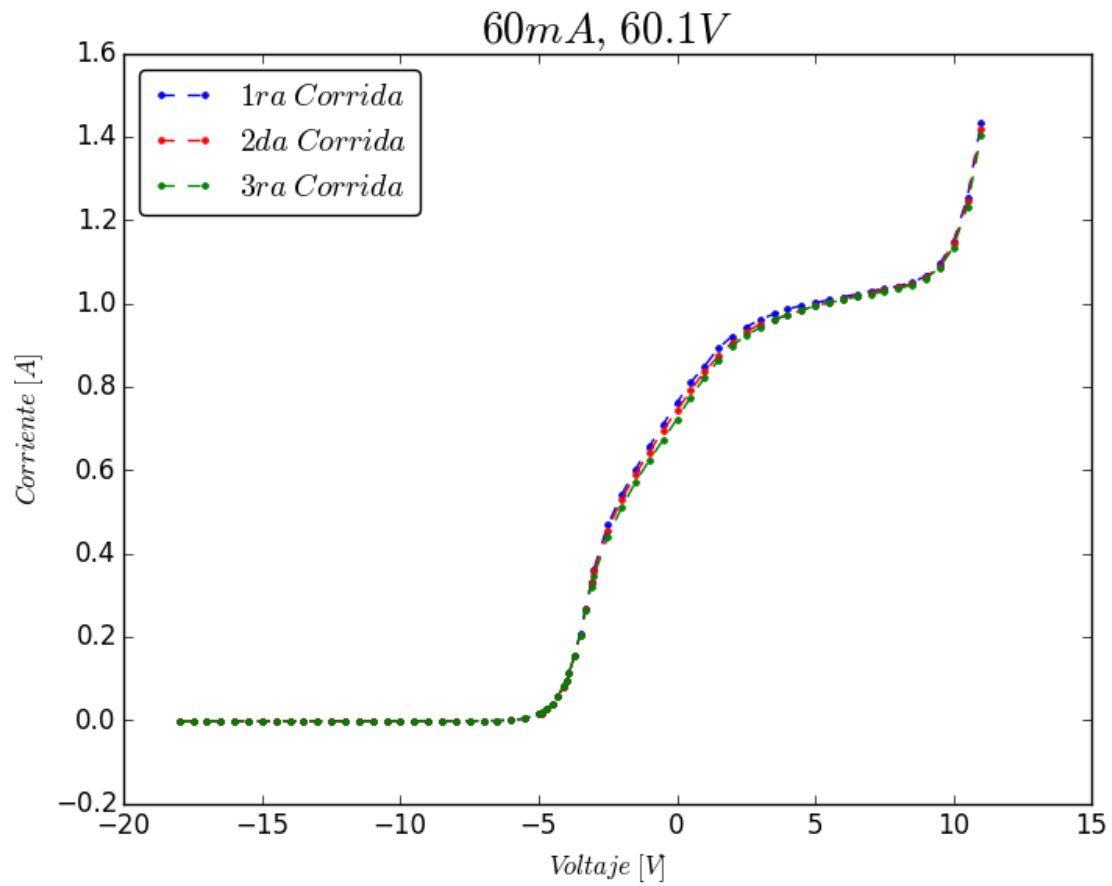
```
In [37]: V2=zeros(67)
        I2=zeros(67)
        for i in 1:67
            V2[i]=sixtymA[i,1]
            I2[i]=sixtymA[i,3]
        end
        plot(V2,I2,"r.--")
        title(L"60 \ mA \ (2da \ corrida)",size=20)
        xlabel(L"Voltaje \ [V]")
        ylabel(L"Corriente \ [A]");
```



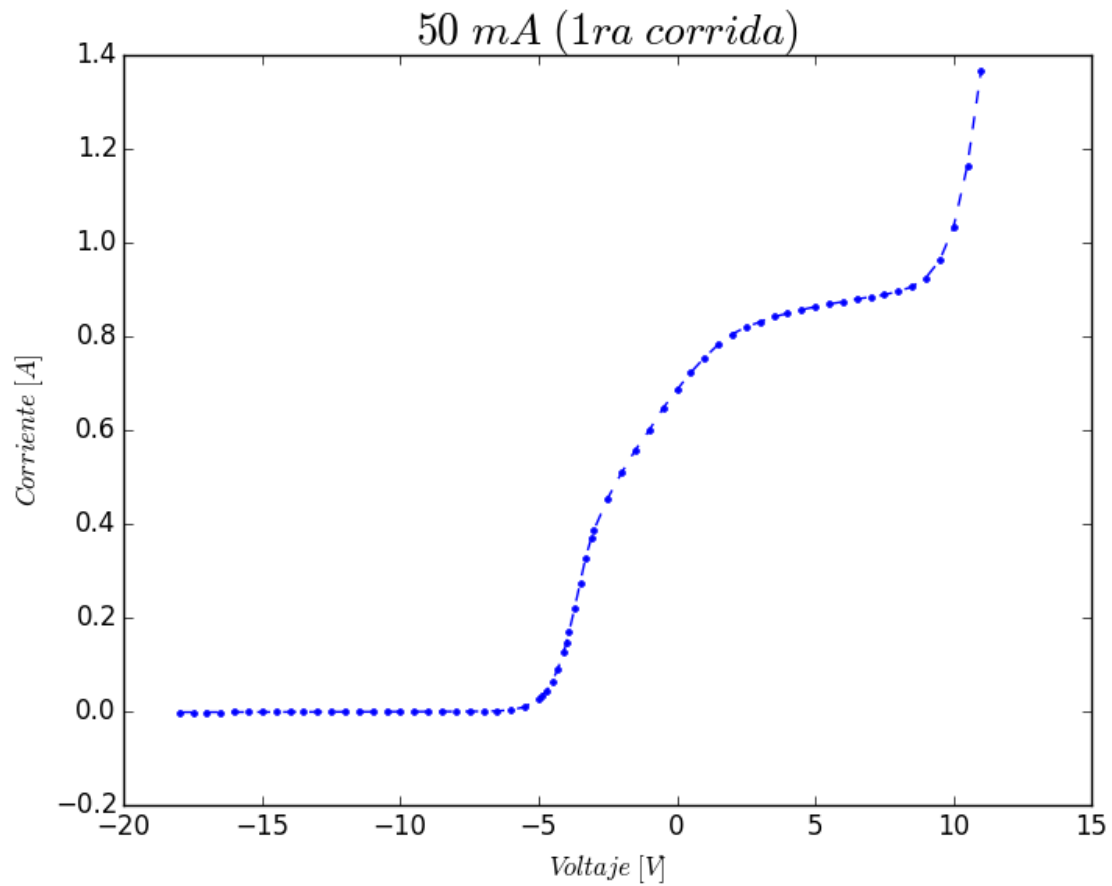
```
In [38]: V3=zeros(67)
        I3=zeros(67)
        for i in 1:67
            V3[i]=sixtymA[i,1]
            I3[i]=sixtymA[i,4]
        end
        plot(V3,I3,"g.--")
        title(L"60 \ mA \ (3ra \ corrida)",size=20)
        xlabel(L"Voltaje \ [V]")
        ylabel(L"Corriente \ [A]");
```



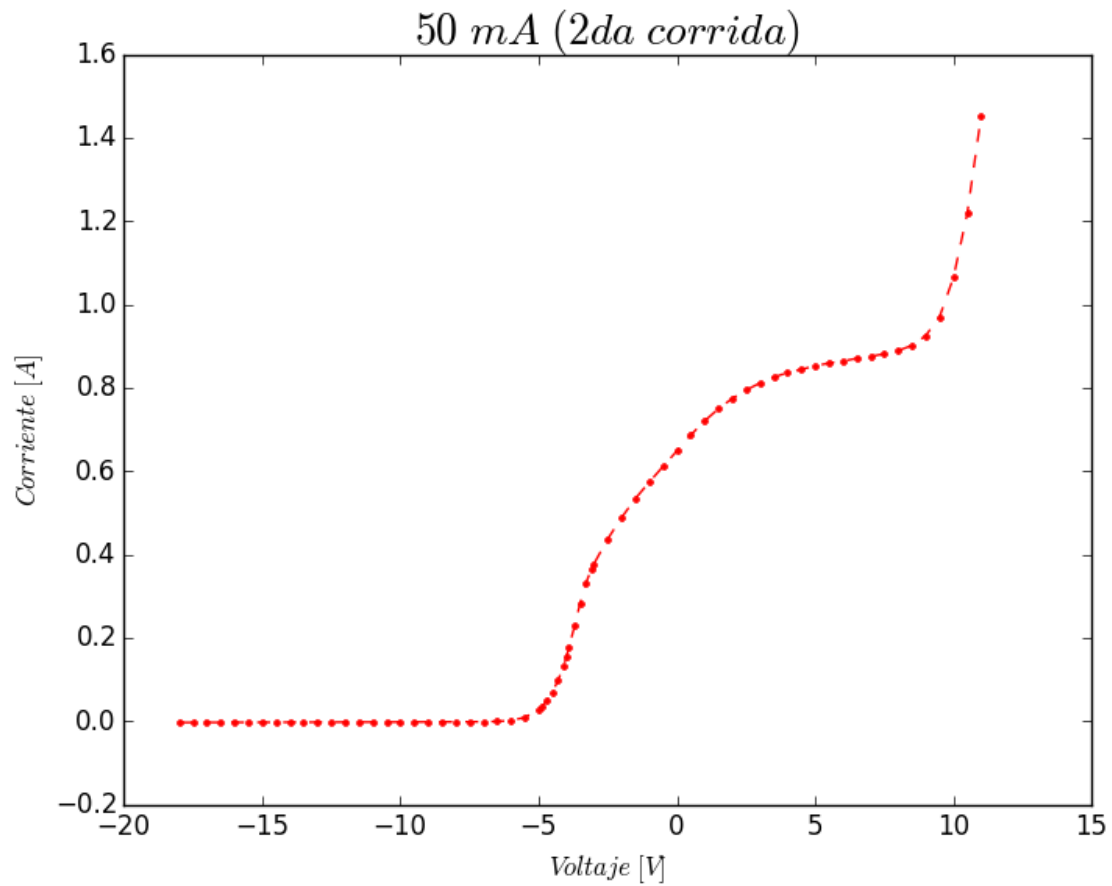
```
In [39]: plot(V1,I1,"b.--",label=L"1ra \ Corrida")
         plot(V2,I2,"r.--",label=L"2da \ Corrida")
         plot(V3,I3,"g.--",label=L"3ra \ Corrida")
         legend(loc="best",fancybox="true")
         title(L"60mA, \ 60.1V ",size=20)
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```

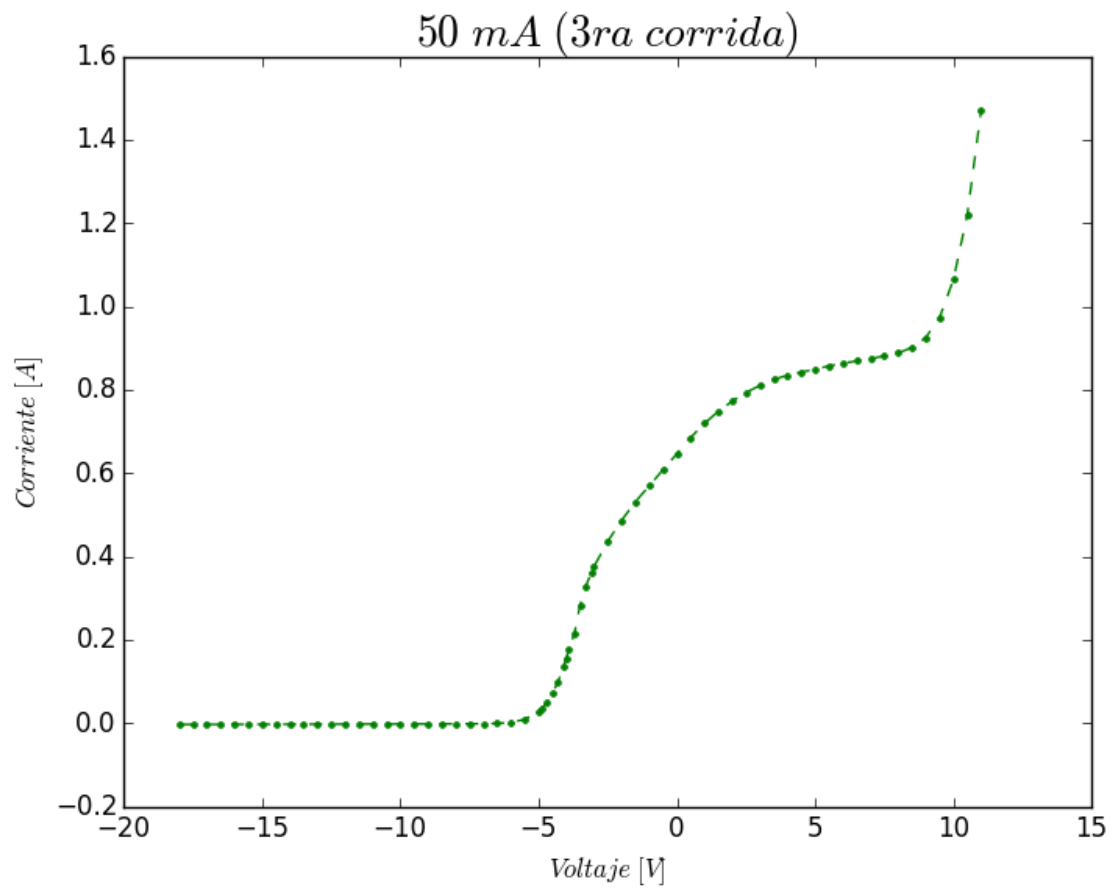
```
In [40]: V1=zeros(67)
         I1=zeros(67)
         for i in 1:67
             V1[i]=fiftymA[i,1]
             I1[i]=fiftymA[i,2]
         end
         plot(V1,I1,"b.--")
         title(L"50 \ mA \ (1ra \ corrida)",size=20)
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```



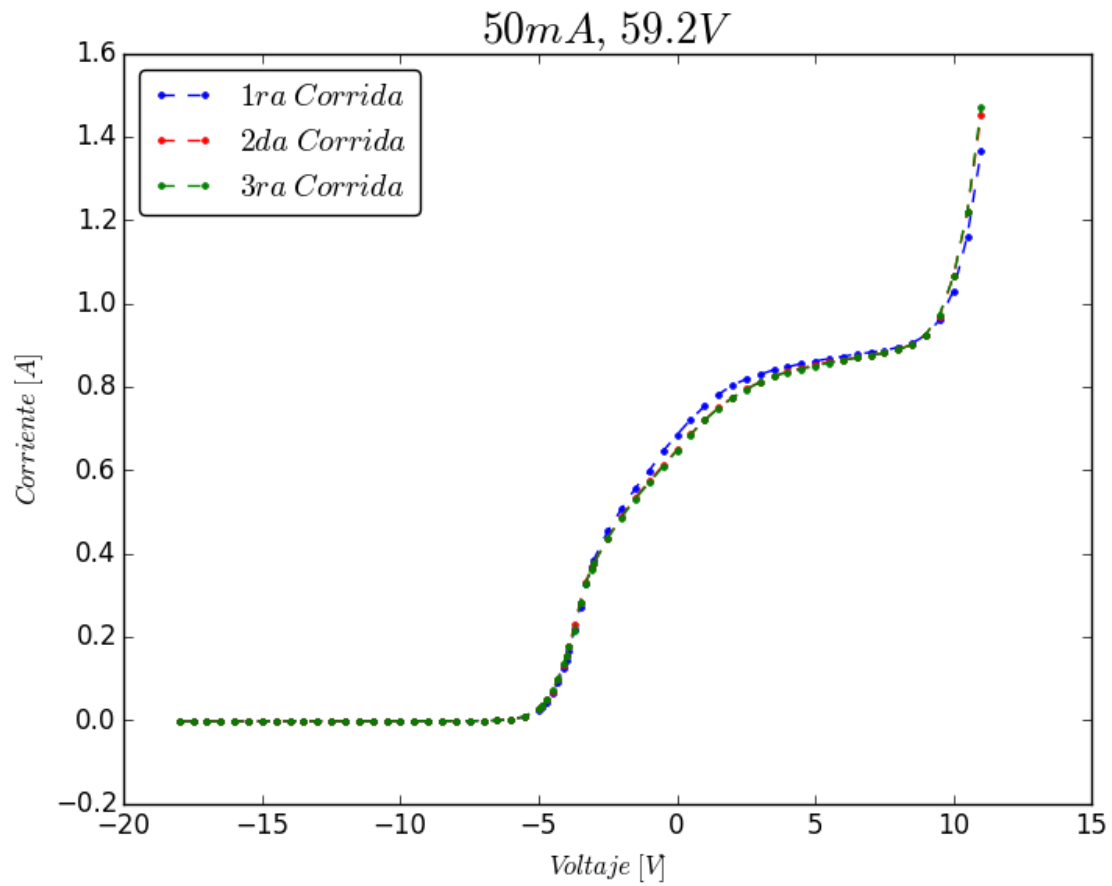
```
In [41]: V2=zeros(67)
        I2=zeros(67)
        for i in 1:67
            V2[i]=fiftymA[i,1]
            I2[i]=fiftymA[i,3]
        end
        plot(V2,I2,"r.--")
        title(L"50 \ mA \ (2da \ corrida)",size=20)
        xlabel(L"Voltaje \ [V]")
        ylabel(L"Corriente \ [A]");
```



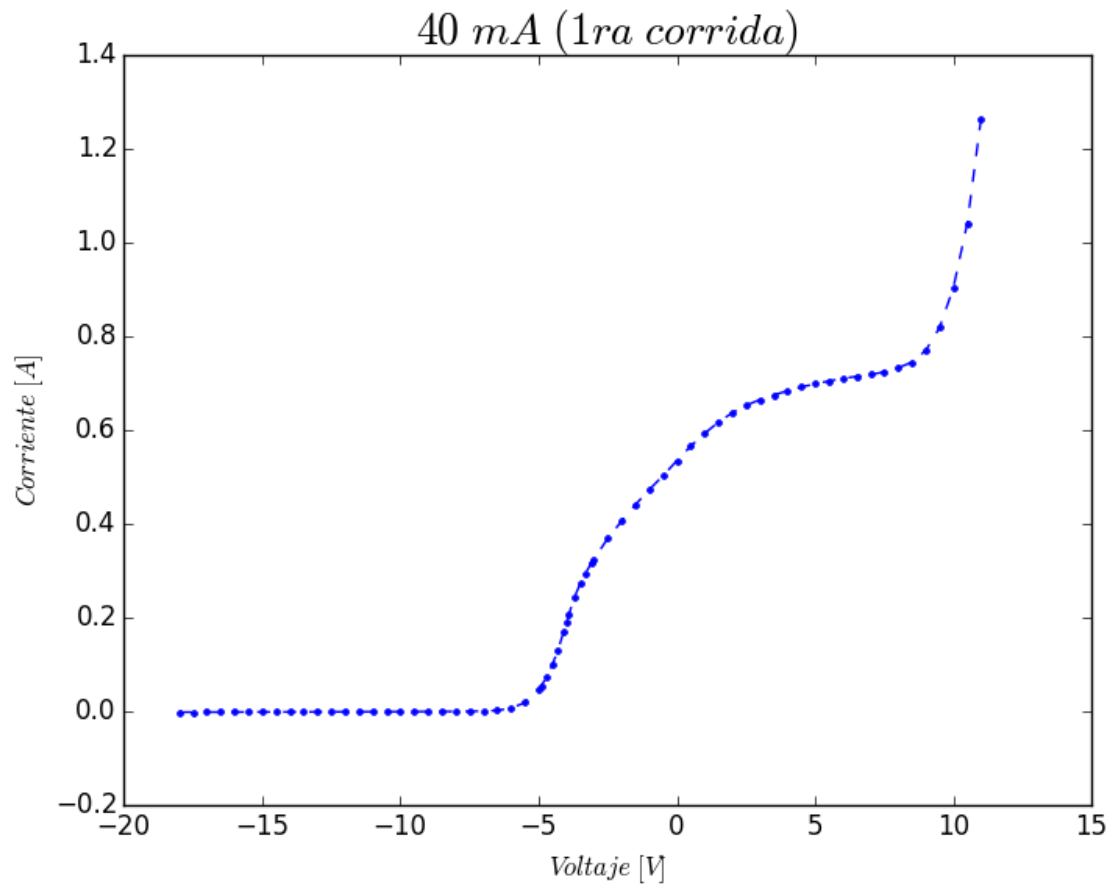
```
In [42]: V3=zeros(67)
I3=zeros(67)
for i in 1:67
    V3[i]=fiftymA[i,1]
    I3[i]=fiftymA[i,4]
end
plot(V3,I3,"g.--")
title(L"50 \ mA \ (3ra \ corrida)",size=20)
xlabel(L"Voltaje \ [V]")
ylabel(L"Corriente \ [A]");
```



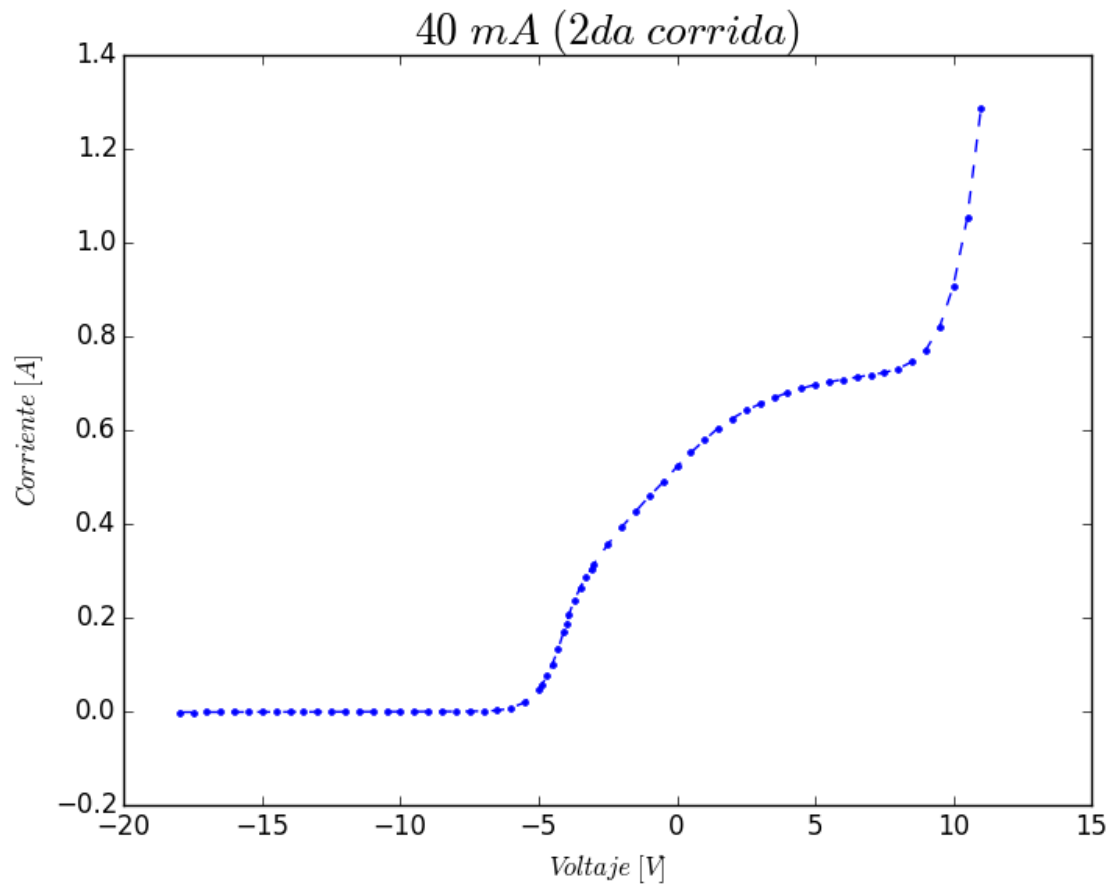
```
In [43]: plot(V1,I1,"b.--",label=L"1ra \ Corrida")
         plot(V2,I2,"r.--",label=L"2da \ Corrida")
         plot(V3,I3,"g.--",label=L"3ra \ Corrida")
         legend(loc="best",fancybox="true")
         title(L"50mA, \ 59.2V ",size=20)
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```



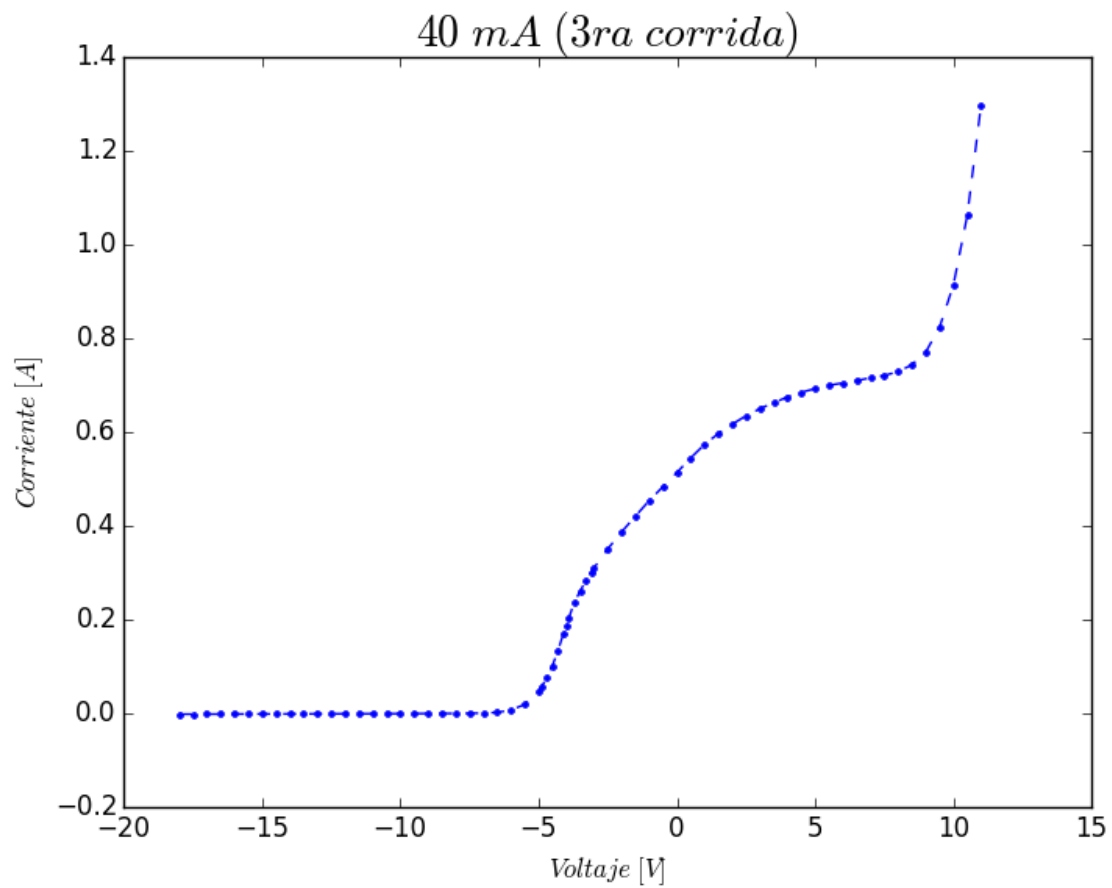
```
In [44]: V1=zeros(67)
         I1=zeros(67)
         for i in 1:67
             V1[i]=fourtymA[i,1]
             I1[i]=fourtymA[i,2]
         end
         plot(V1,I1,"b.--")
         title(L"40 \ mA \ (1ra \ corrida)",size=20)
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```



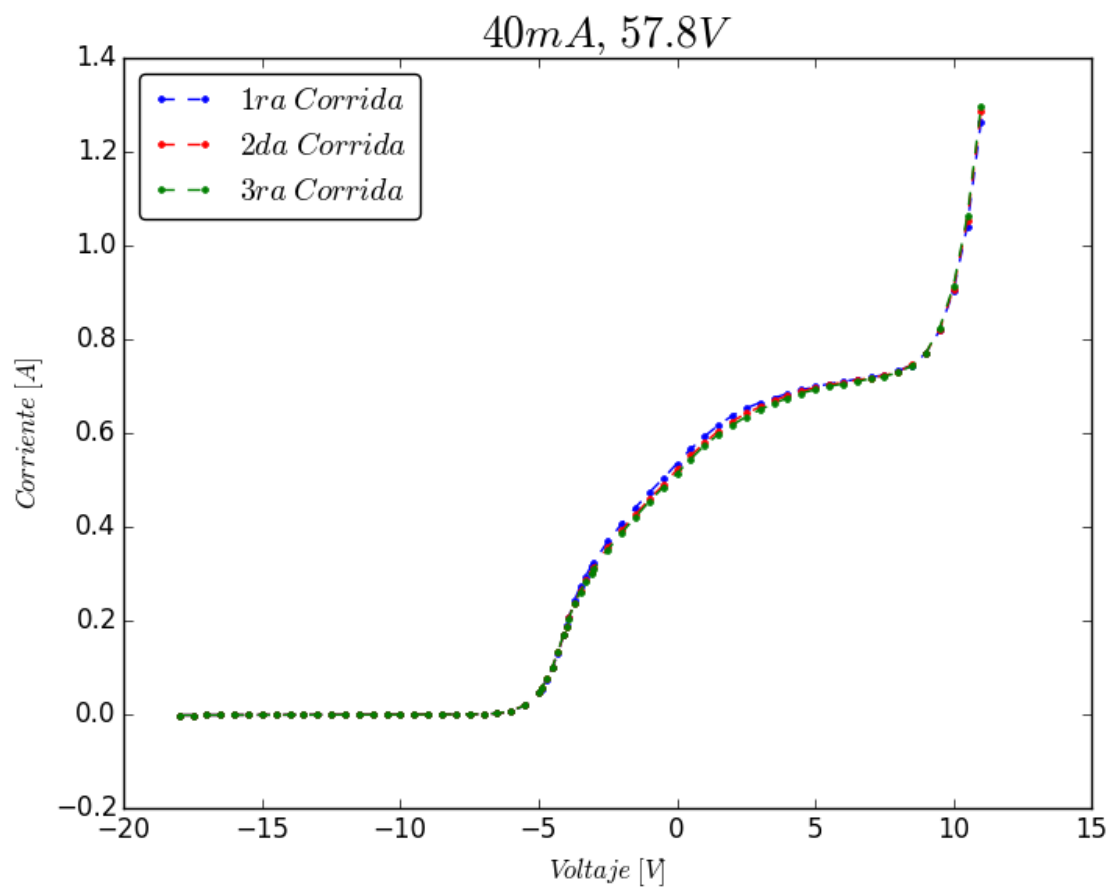
```
In [45]: V2=zeros(67)
         I2=zeros(67)
         for i in 1:67
             V2[i]=fourtymA[i,1]
             I2[i]=fourtymA[i,3]
         end
         plot(V2,I2,"b.--")
         title(L"40 \ mA \ (2da \ corrida)",size=20)
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```



```
In [48]: V3=zeros(67)
         I3=zeros(67)
         for i in 1:67
             V3[i]=fourtymA[i,1]
             I3[i]=fourtymA[i,4]
         end
         plot(V3,I3,"b.--")
         title(L"40 \ mA \ (3ra \ corrida)",size=20)
         xlabel(L"Voltaje \ [V]")
         ylabel(L"Corriente \ [A]");
```



```
In [49]: plot(V1,I1,"b.--",label=L"1ra \ Corrida")
plot(V2,I2,"r.--",label=L"2da \ Corrida")
plot(V3,I3,"g.--",label=L"3ra \ Corrida")
legend(loc="best",fancybox="true")
title(L"40mA, \ 57.8V ",size=20)
xlabel(L"Voltaje \ [V]")
ylabel(L"Corriente \ [A]");
```

In []: