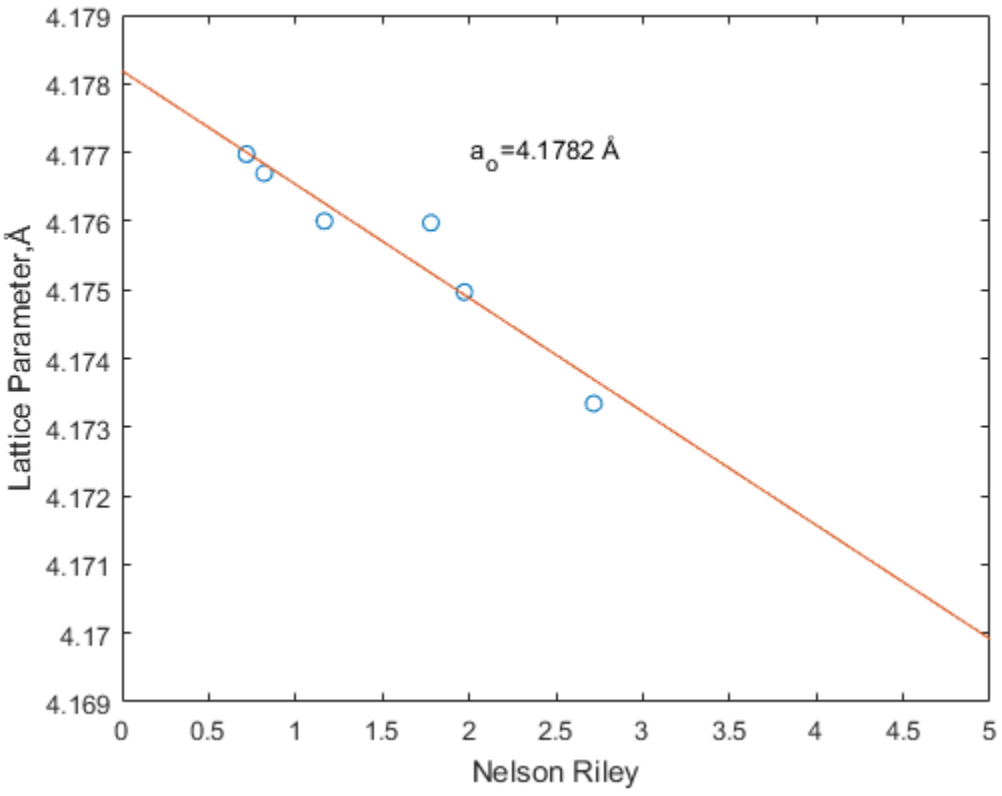
```
d = xlsread('NewXrayData2017.xlsx','B5:B10');
a =
 [d(1)*sqrt(8),d(2)*sqrt(11),d(3)*sqrt(12),d(4)*4,d(5)*sqrt(19),d(6)*sqrt(20)];
a = a';
twotheta = xlsread('NewXrayData2017.xlsx','A5:A10');
theta = twotheta/2;
thetarad = theta*pi/180;
NR = ((cos(thetarad).^2)./sin(thetarad)) + (cos(thetarad).^2)./
thetarad;
xrange = linspace(0,5);
plot(NR,a)
p = polyfit(NR,a,1);
line = p(1).*xrange +p(2);
plot(NR,a,'O')
hold on
plot(xrange,line)
xlabel('Nelson Riley')
string = strcat('Lattice Parameter,  ', char(197));
ylabel(string)
aaa= num2str(line(1));
anaught = strcat({'a_o='}, aaa , {' '}, char(197));

text(2,4.177,anaught)

hold off
```



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