R=imread('red channel image','TIF');

G=imread('green channel image','TIF');

rg=R-G;

rrg=double(rg)./double(G);

imtool(rrg)

R0=2.33;

KSV=.018659;

a=3.229E-13;

o2=(R0-rrg)./(KSV\*(rrg-R0\*a));

O2=(o2>700)\*700+(o2<0)\*0+((o2>0)&(o2<700)).\*o2;

flipped\_O2=flipud(O2);

pcolor(flipped\_O2)

shading interp

shg