

FTIR

[GENERAL INFORMATION]

Function Name=FTIR CR

Brief Description=Fit FTIR Magneto Transmission

[FITTING PARAMETERS]

Names=Offset,n0,n1,m_eff,Field,Ns,mu

Meanings=refr. ind. of SiO₂, and Si, eff. mass, Field,
el. conc. in 10¹², mobility

[FORMULA]

```
wc=0.17585*Field/m_eff;  
w=0.188365*x;  
tau=5.6866e-4*m_eff*mu;  
wps=0.10613*Ns/(m_eff*(n0+n1));  
A=((w - wc)^2 * tau^2 + 1);  
B=((w + wc)^2 * tau^2 + 1);  
C=wps*tau*(wps*tau + 2);  
beta=n0/(n0 + n1);  
y=Offset+2*beta^2*(A/(A+C)+B/(B+C));
```

FIR-Transmission

[GENERAL INFORMATION]

Function Name=FIR CR

Brief Description=Fit FIR Magneto Transmission

[FITTING PARAMETERS]

Names=n0,n1,m_eff,lambda_FIR,Ns,mu

Meanings=refr. ind. of SiO₂, and Si, eff. mass, FIR um,
el. conc. in 10¹², mobility

[FORMULA]

wc=0.17585*x/m_eff;

w=1883.65/lambda_FIR;

tau=5.6866e-4*m_eff*mu;

wps=0.10613*Ns/(m_eff*(n0+n1));

A=((w - wc)^2 * tau^2 + 1);

B=((w + wc)^2 * tau^2 + 1);

C=wps*tau*(wps*tau + 2);

beta=n0/(n0 + n1);

y=2*beta^2*((A/(A + C)) + (B/(B + C)));