

BeeDance

File Help

$^{10}\text{B}_4\text{C}$

Density:

λ :

Results

Re(SLD)	<input type="text" value="1.81(39)e-6"/>	<input type="text" value="1/Å²"/>
Im(SLD)	<input type="text" value="1.2350(35)e-6"/>	<input type="text" value="1/Å²"/>
Re(V)	<input type="text" value="4.7(10)e1"/>	<input type="text" value="neV"/>
Im(V)	<input type="text" value="3.2158(92)e1"/>	<input type="text" value="neV"/>
λ_c	<input type="text" value="1.32(14)e3"/>	<input type="text" value="Å"/>
θ_c	<input type="text" value="2.13(23)e1"/>	<input type="text" value="mrad/Å"/>
q_c	<input type="text" value="9.5(10)e-3"/>	<input type="text" value="1/Å"/>
μ_a	<input type="text" value="4.436(12)e2"/>	<input type="text" value="1/cm"/>
μ_{inc}	<input type="text" value="5.1(52)e-1"/>	<input type="text" value="1/cm"/>
μ	<input type="text" value="4.441(17)e2"/>	<input type="text" value="1/cm"/>

Completed.

Formula line

Formula display

Density

Wavelength

Run button

Scattering Length Density

Potential

Characteristic wavelength transfer

Critical angle

Critical momentum

True absorption coefficient

Incoherent scattering attenuation

Attenuation coefficient

Use formula line to write formula.

Use ^ to designate the element isotope number. E.g. ^2H = D(deuterium)

The chemical composition can be specified using square brackets [] with weights of constituent substances: F1[w1]F2[w2]...Fn[wn] (F1, F2, ... , Fn are formulas).
E.g. C2H5OH[31.6]H2O[60]

Enter density and neutron wavelength. Click on the Run button to get the results.

(No account is taken of the wavelength dependence of the scattering lengths of isotopes of **Gd, Cd, Sm, Eu** due to thermal resonances)

θ_c

Critical angle

Tip: To get quick help, hold the cursor over the value

Quantities in brackets are errors due to errors in the data tabulated (**V.F. Sears, Neutron News, Vol. 3, No. 3, 1992**. Table 1. Neutron scattering lengths and cross sections of the elements and their isotopes.)