Question **1**

Tries remaining: 3

Marked out of 1.00

Now, we want you to derive a relation between reciprocal space and real space for the SANS setup. You can do this by comparing the relation you just found between scattering angle and radius with the expression for the length of the q-vector.

Use your result to answer the following question:

A monocromatic ray of neutrons with a wavelength of λ [Å] is aimed at a sample. The sample is d [m] from the detector. What is the corresponding q-value for neutrons detected at a distance r [m] from the center? Remember to put the appropriate unit in your response.

$q =$

Display response

Check

Start again | Save | Fill in correct responses | Submit and finish | Close preview

Technical information

Download this question in Moodle XML format

Collapse all

Attempt options

How questions behave: Interactive with multiple tries

Marked out of: 1

Start again with these options

Display options

Whether correct: Not shown

Marks: Show max mark only

Decimal places in grades: 2

Specific feedback: Shown

General feedback: Shown

Right answer: Not shown

Response history: Not shown

Update display options