

Crochet pattern

The structure of Perovskite has a central metal atom which in this model will be made using crochet.

You will need:

- Double knit weight knitting yarn (also called light worsted or 8 ply) in yellow in a shade that falls somewhere in the range of shades below:



- 3.5mm crochet hook (size 9)
- Toy stuffing
- Darning needle to sew in ends

Abbreviations:

Dc = Double crochet stitch

Inc = increase by 1 stitch (two stitches into the next stitch)

Dec = decrease by 1 stitch (stitch one stitch into the next two or see instructions on “invisible decreases” on our website)

(x) = number of stitches in that round

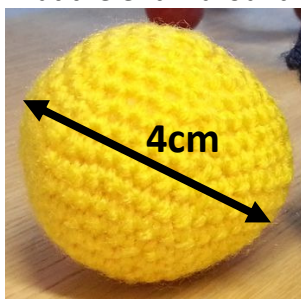
More help, pictures and instructions on www.surrey.ac.uk/chemistry/perovskite or find us on Facebook at www.facebook.com/ThePerovskiteProject.

Crochet pattern, makes one spherical atom around 4cm across:

1. Make a magic circle
2. 6 dc into the magic circle (6)
3. Inc around (12)
4. dc then inc, repeat around (18)
5. dc, dc, inc, repeat around (24)
6. dc x3, inc, repeat around (30)
7. dc x4, inc, repeat around (36)
8. dc x 5, inc, repeat around (42)
9. dc x 6, inc, repeat around (48)
10. dc around (48)
11. dc around (48)
12. dc x 6, dec, repeat around (42)
13. dc x 5, dec, repeat around (36)
14. dc x 4, dec, repeat around (30)
15. dc x 3, dec, repeat around (24)
16. dc x 2, dec, repeat around (18)
17. Stuff the sphere working the stuffing material and manipulating the shape to make it spherical
18. dc then dec, repeat around (12)
19. add a little more stuffing if required
20. dec all around (6)

21. Bind off the end and close off the hole by weaving the end of the yarn through the stitches around the hole and pull it tight before tying it off.

If you are using thicker yarn or a larger hook you may need to modify the pattern to achieve the right sized atom at the end – around 4cm across when stuffed:



To do this, follow the pattern with your yarn and hook combination until the piece is around 6-7 cm across when it is flattened out. This will mean when you stuff it, it should be the right size.

Make a note of the number of increases you used to get to this stage. Now crochet the two central rows where there are no increases or decreases and start your decreasing rows making sure you have one decreasing row for each increasing row you had to begin with.

For example – with a thicker yarn you need fewer rows to achieve the size

1. Make a magic circle
2. 6 dc into the magic circle (6)
3. Inc around (12)
4. dc then inc, repeat around (18)
5. dc, dc, inc, repeat around (24)
6. dc x3, inc, repeat around (30) – measure piece and find it is ~7cm across
7. dc around (30)
8. dc around (30)
9. dc x 3, dec, repeat around (24)
10. dc x 2, dec, repeat around (18)
11. Stuff the sphere working the stuffing material and manipulating the shape to make it spherical
12. dc then dec, repeat around (12)
13. add a little more stuffing if required
14. dec all around (6)
15. Bind off the end and close off the hole by weaving the end of the yarn through the stitches around the hole and pull it tight before tying it off.

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