

heterocyclic hat

by audreym

FOR ORGANIC CHEMISTS EVERYWHERE

heterocyclic molecules have atoms other than carbon (*hetero-*) in a ring structure (*-cyclic*).
the molecules on this hat are
serotonin, theobromine, penicillin & caffeine



Notes: I'm new to pattern writing and chart design so please let me know if you come across any mistakes. The hat is knit in the round on a circular needle, with an 18 row panel of colour work. If you're unfamiliar with working with colour, there's a tutorial by Theresa Vinson Stenersen on knitty.com.

Size: large adult, finished circumference 82 cm (diameter 26 cm)

Materials:

Yarn: made in 'double knit' yarn (approx [CYCA 3](#)) – you will need a bit less than 100g (260 m) of main colour (MC) in dark charcoal grey (I used Jonelle Shetland Style yarn, this is discontinued), a small amount (approx 10g / 25 m) of main contrast colour (CC1) in light grey, plus oddments of 6 other contrasting colours (see chart)

Needles: 3.75mm 40cm circular needle, set of 3.75 mm dpns

Other: tapestry needle; stitch markers

Tension: 22 stitches to 10 cm in stocking stitch on 3.75mm needle (unstretched – note that the area of the hat with the stranded colours will be less stretchy than your usual)

Abbreviations dpns = double pointed needles; k = knit; p = purl; k2tog = knit two together; p2tog = purl 2 together; MC = main colour; CC1 = main contrasting colour

INSTRUCTIONS

Using main colour and the 3.75mm circular needle, cast on 120 stitches. Join and place a marker to show the beginning of the round. Working in the round, knit 7 rounds of knit2 purl2 rib.

Then change to working in stocking stitch (knit every stitch) and work a further 10 rounds in stocking stitch (work measures approx 6 cm at this point).

Now work 18 rows of colour work using the chart below. Read chart from bottom to top and every row from right to left – the direction you knit in – and knit every row. This is a long chart with no repeats, I find it helps to place a marker at the start of each molecule. When you have finished the chart, continue knitting in the round using main colour in stocking stitch until hat measures 21 cm or desired length.

Now place a marker to denote the beginning of the round and shape crown (switching to dpns when work gets smaller):

next round: **K5, K2tog **; repeat from ** to **; knit 1 round
next round: **K4 k2 tog **; repeat from ** to ** ; knit 1 round
next round: **K3 k2 tog **; repeat from ** to ** ; knit 1 round
next round: **K2 k2 tog **; repeat from ** to ** ; knit 1 round
next round: **K1 k2 tog **; repeat from ** to ** ;knit 1 round
next round: **K2 tog **; repeat from ** to ** (18 stitches)

Break yarn (leaving a long end), pull through remaining 18 stitches on needle twice, draw up tightly and secure end firmly on the inside. Weave in all the ends (there are a lot of ends. Sorry). Block lightly (according to your ball-band instructions) and present to your favourite organic chemist.

original pattern by audreym, march 2008 (080411/v3)
audreym.blog@googlemail.com audm.wordpress.com

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STRICTLY NO COMMERCIAL USE

you may not sell this pattern nor items made from it

KEY MC (dark grey)

CC1 (lt grey)

red (oxygen)

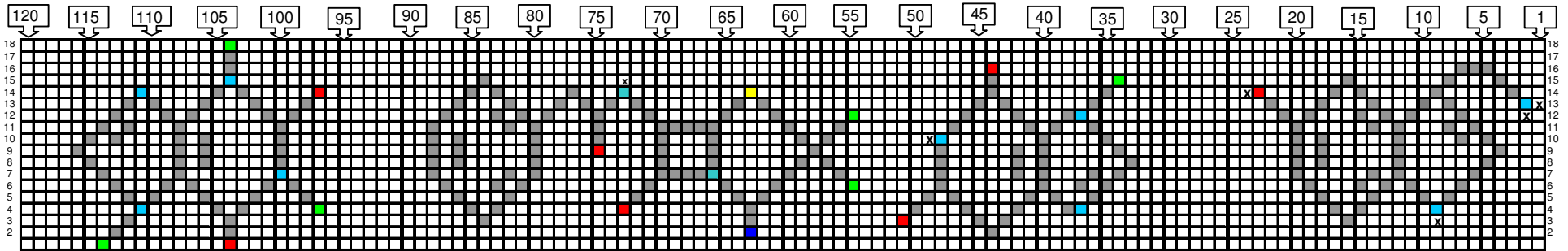
aqua (nitrogen)

green (methyl group)

yellow (sulfur)

blue (carboxyl group)

x white (hydrogen)

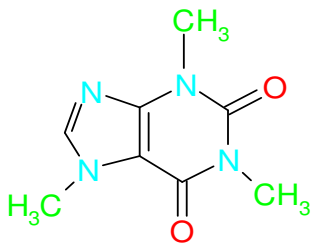


97 st
begin
caffeine

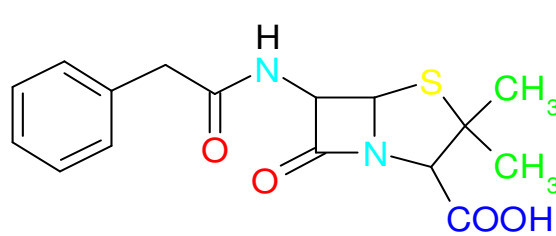
55 st
begin
penicillin

33 st
begin
theobromine

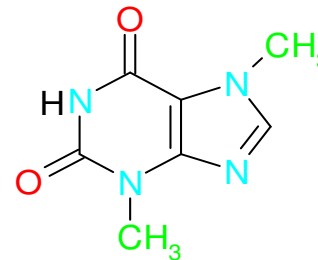
1 st
begin
serotonin



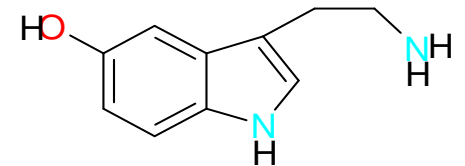
alertness
(caffeine)



health
(penicillin)



chocolate
(theobromine)



happiness
(serotonin)

(note for chemists: the structures have been simplified for ease of knitting and yes I know that some of the oxygens should be shown double bonded)

