Paper Reference(s) 9CH0/02
Pearson Edexcel Level 3 GCE

Chemistry
Advanced
PAPER 2: Advanced Organic and Physical Chemistry

Monday 19 June 2023 – Afternoon

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

Y71913A

Pearson

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.

Contents

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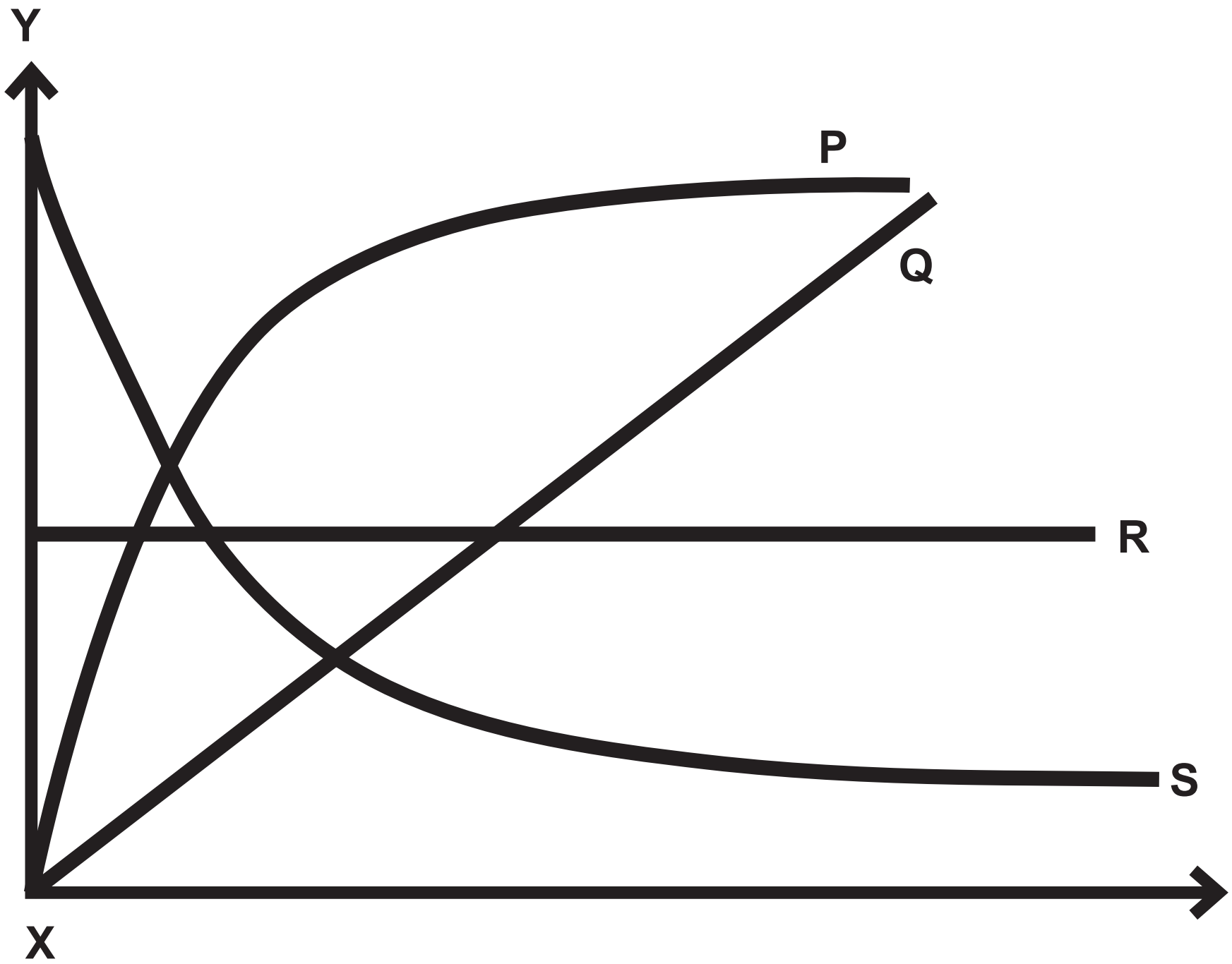
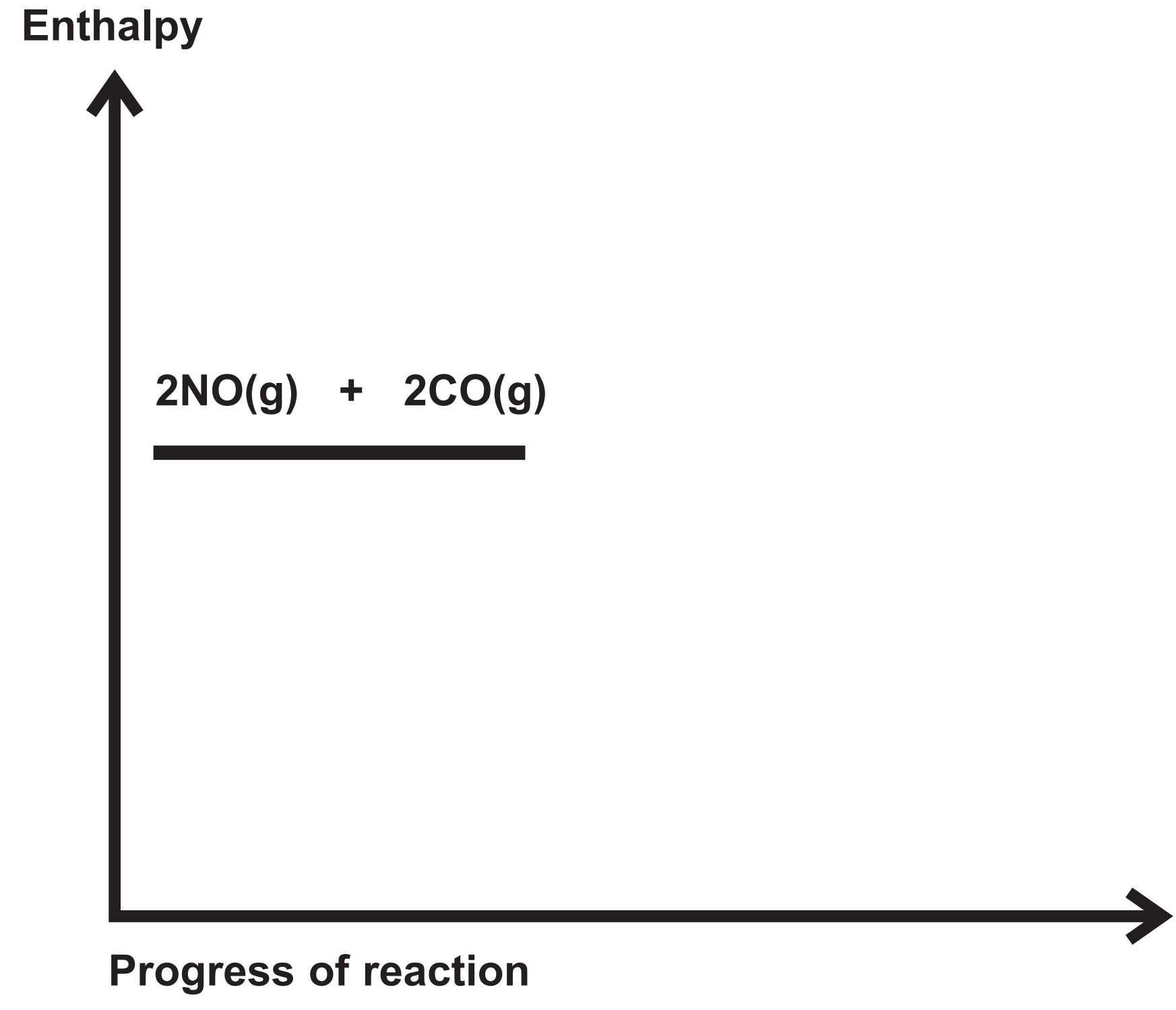
Question 3(a)

Element	A_r
hydrogen, H	1·0078
carbon, C	12·0000
nitrogen, N	14·0031
oxygen, O	15·9949

Question 5(b)



Question 5(d)(i)

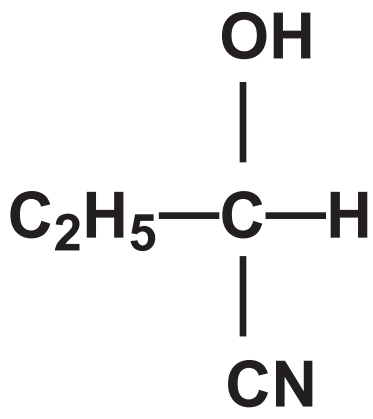


Question 6(b)(ii)

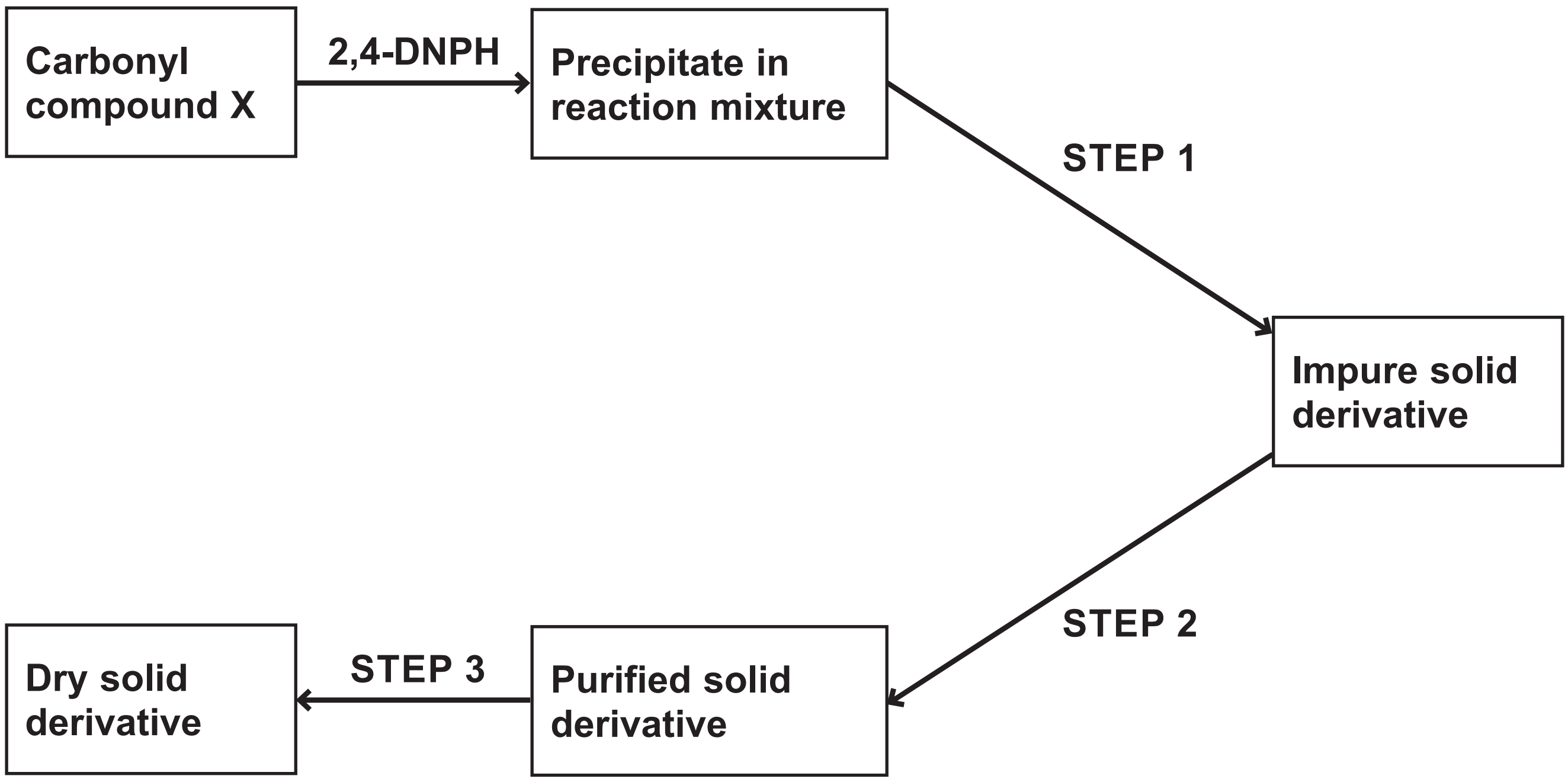
Question 6(c)(ii)

Experiment	$[CH_3COCH_3(aq)]$ / mol dm^{-3}	$[H^+(aq)]$ / mol dm^{-3}	$[I_2(aq)]$ / mol dm^{-3}	Rate / mol dm^{-3} s^{-1}
1	3·0	0·4	0·02	$3{\cdot}36 \times 10^{-5}$
2	4·0	0·2	0·04	

Question 7(b)



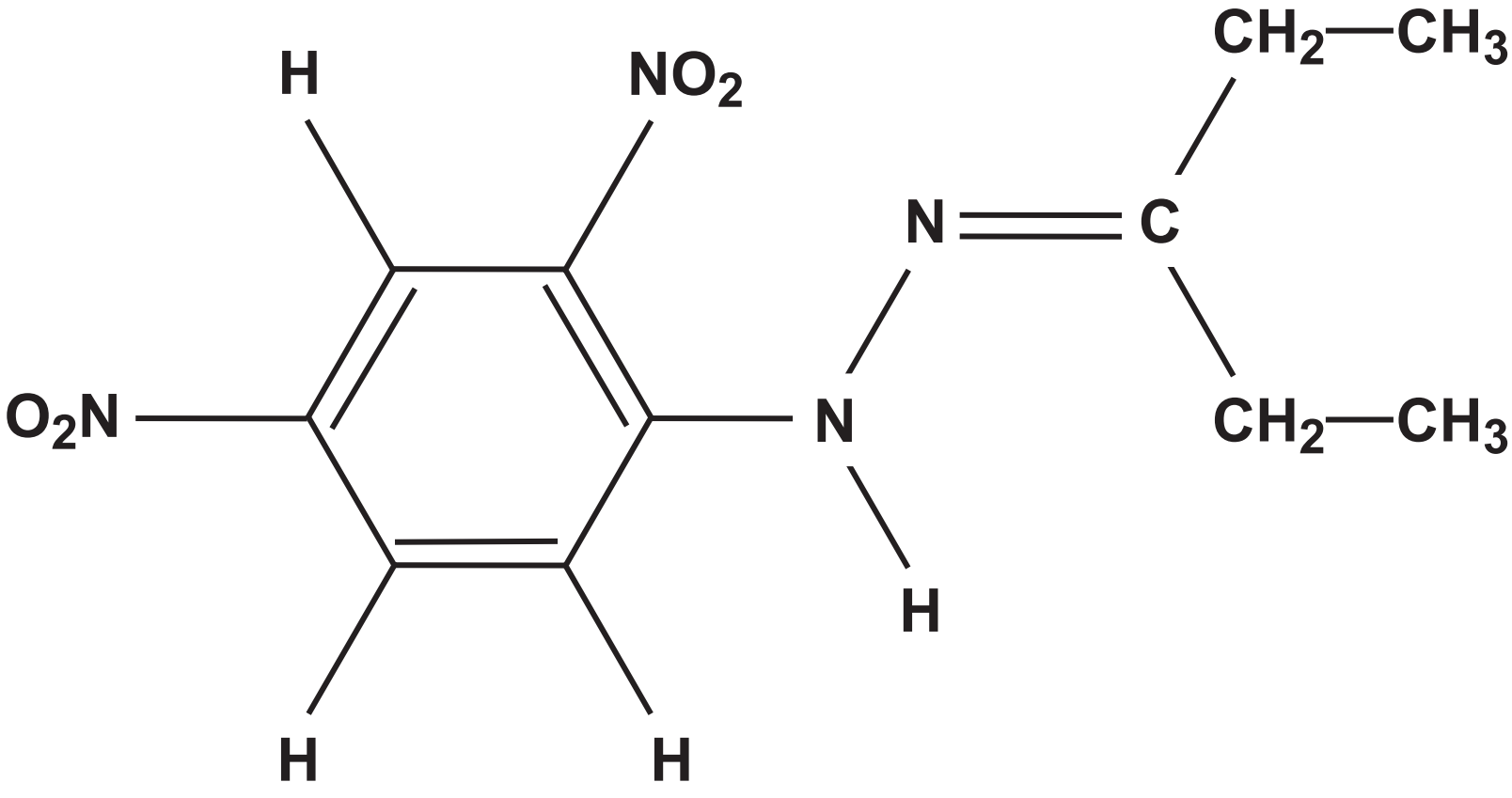
Question 7(c)(i)



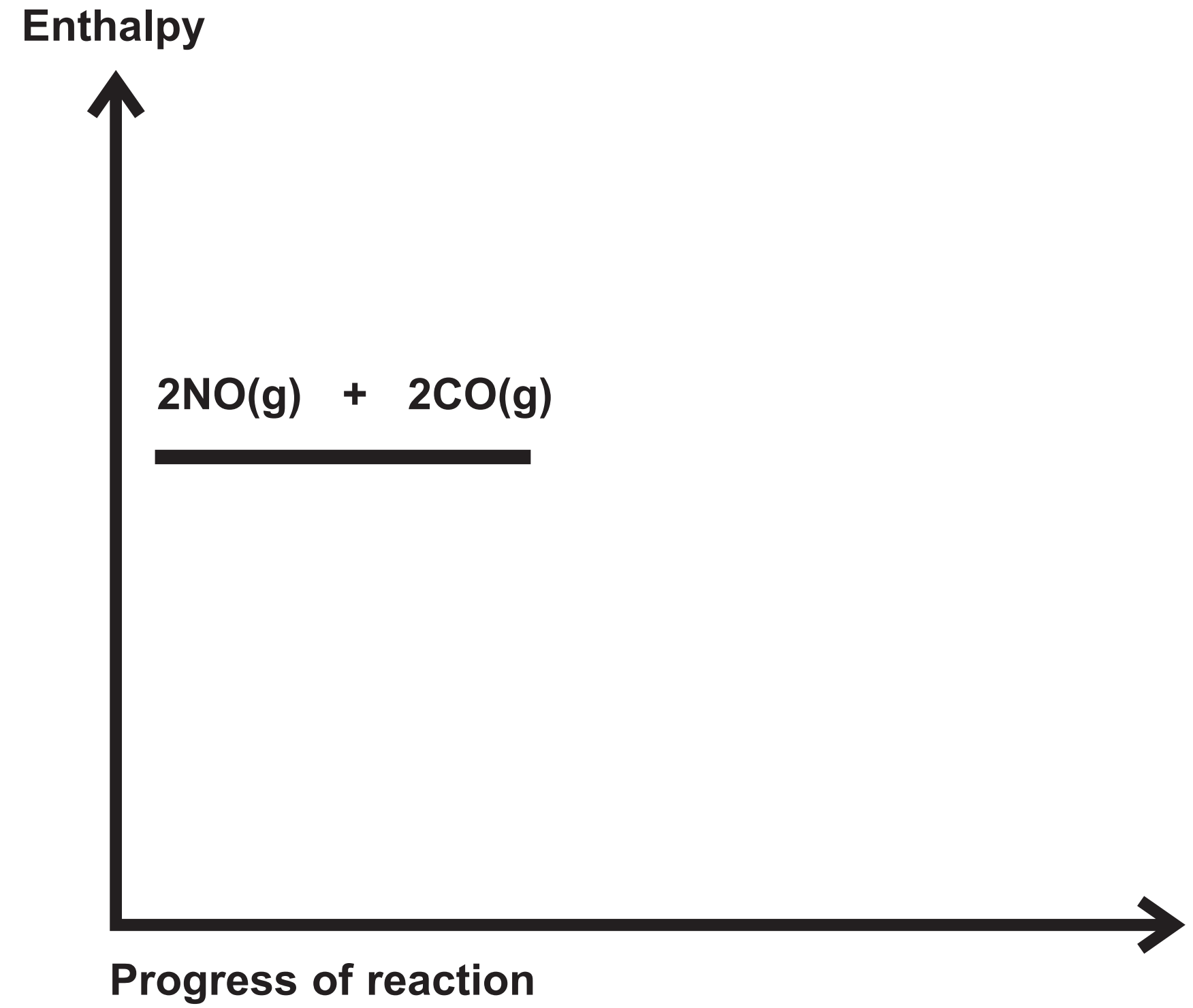
Question 7(c)(ii)

Carbonyl compound	Melting temperature range of derivative / °C
ethanal	165 – 168
propanal	154 – 156
propanone	127 – 129
cyclohexanone	158 – 160

Question 7(c)(iii)



Question 5(d)(i)



Question 6(b)(ii)

Question 7(c)(iii)