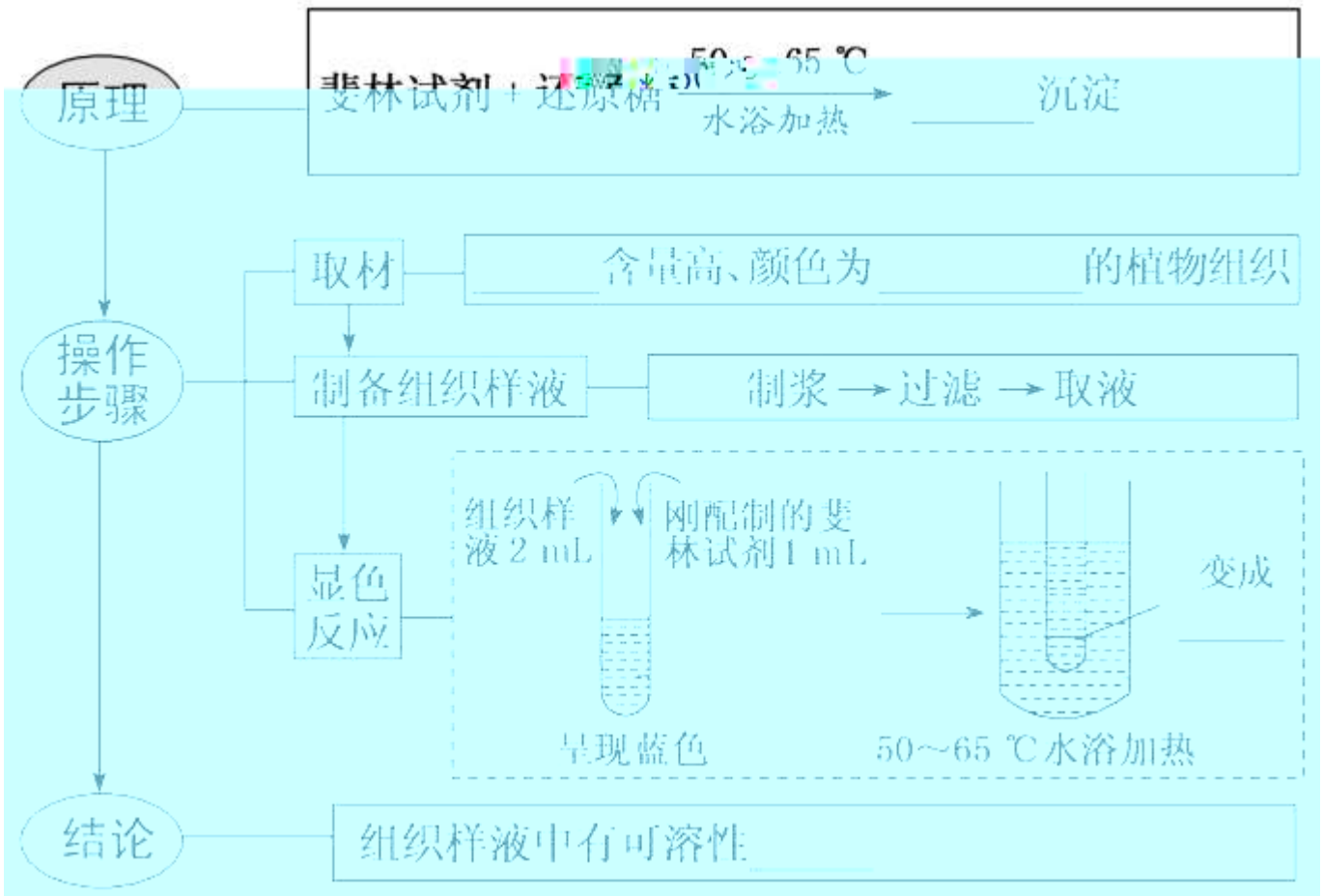
3-

1

——物质检测

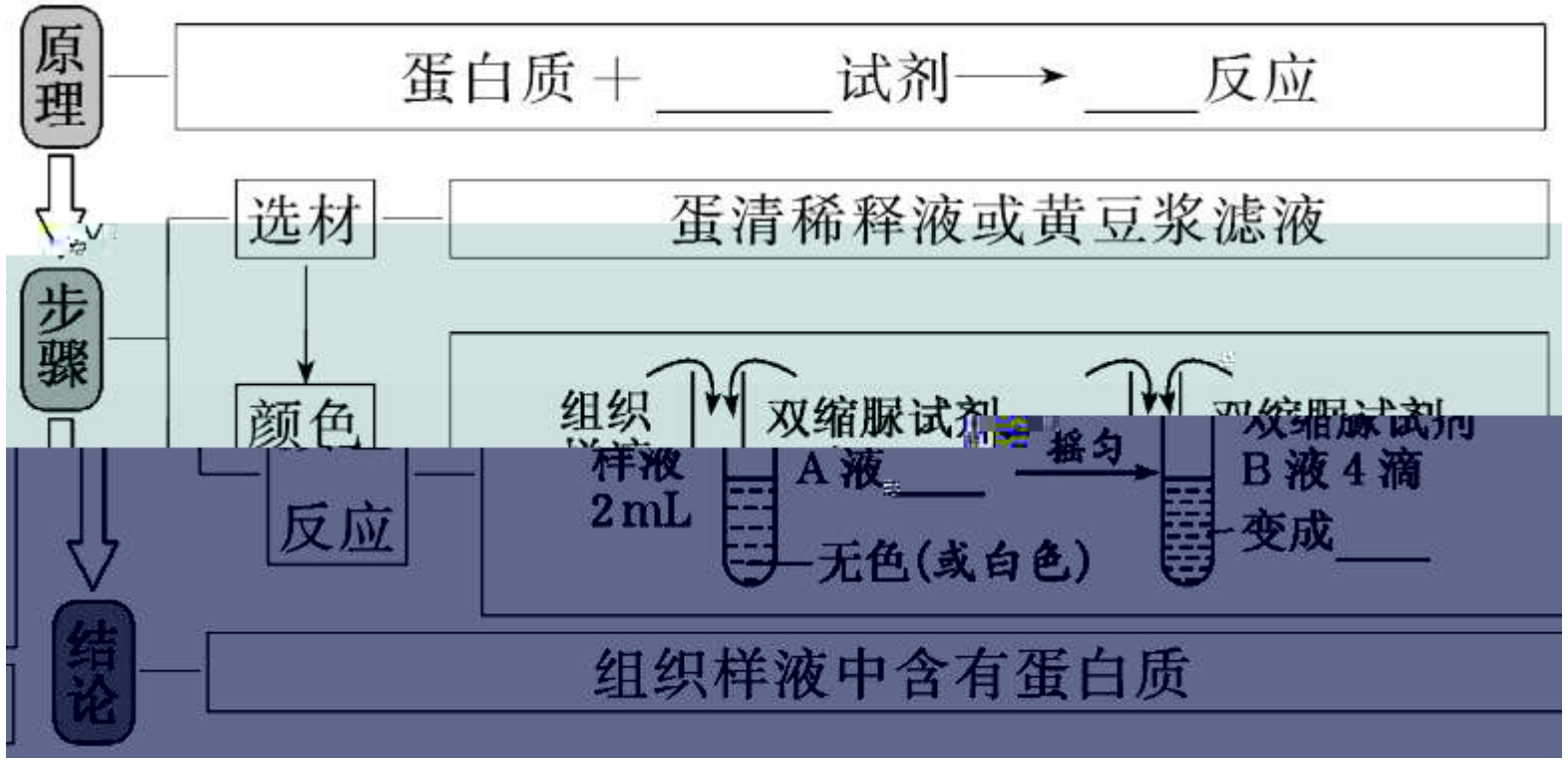
还原糖的检测



1

——物质检测

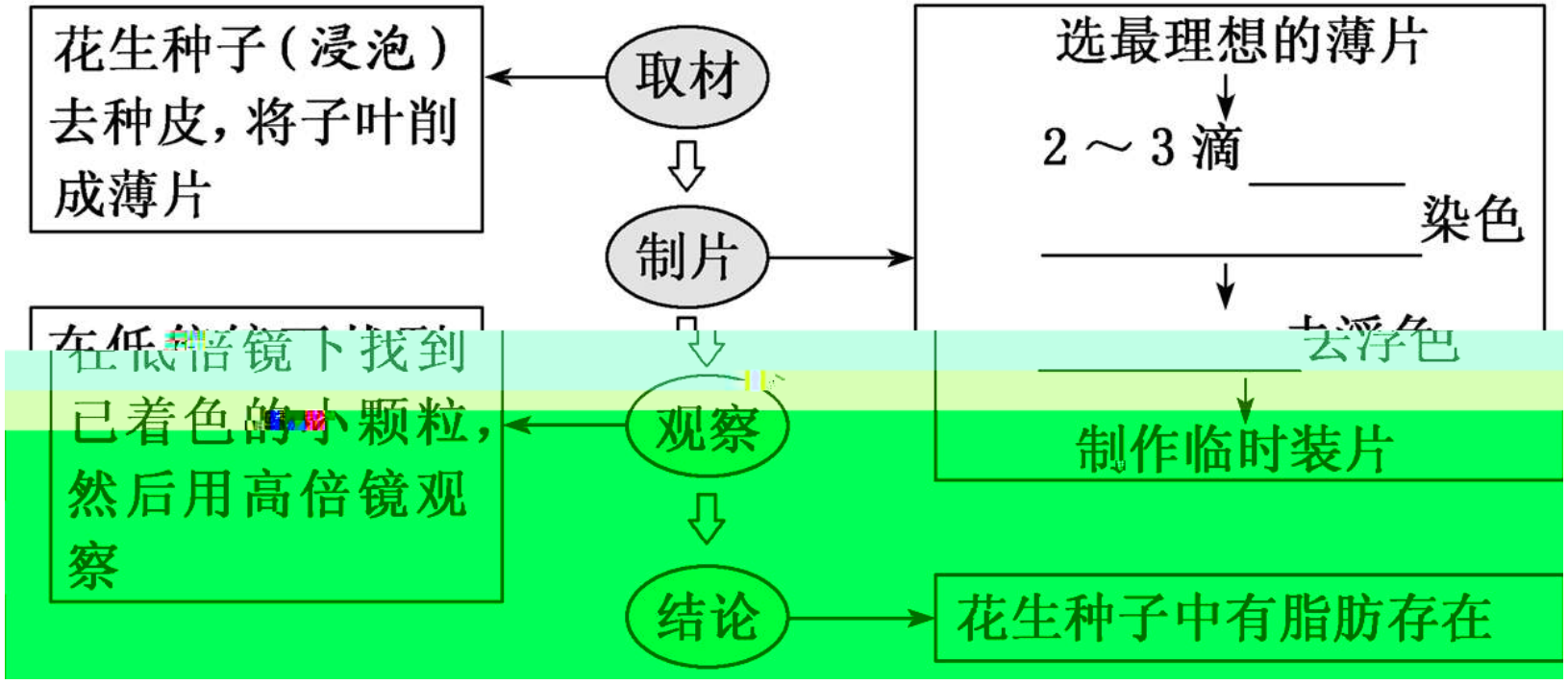
蛋白质的检测



1

——物质检测

脂肪的检测


花生种子（浸泡）去种皮，将子叶削成薄片
取材
制片
选最理想的薄片
2～3滴
染色
去浮色
制作临时装片
观察
在低倍镜下找到已着色的小颗粒，然后用高倍镜观察
结论
花生种子中有脂肪存在

1

——物质检测

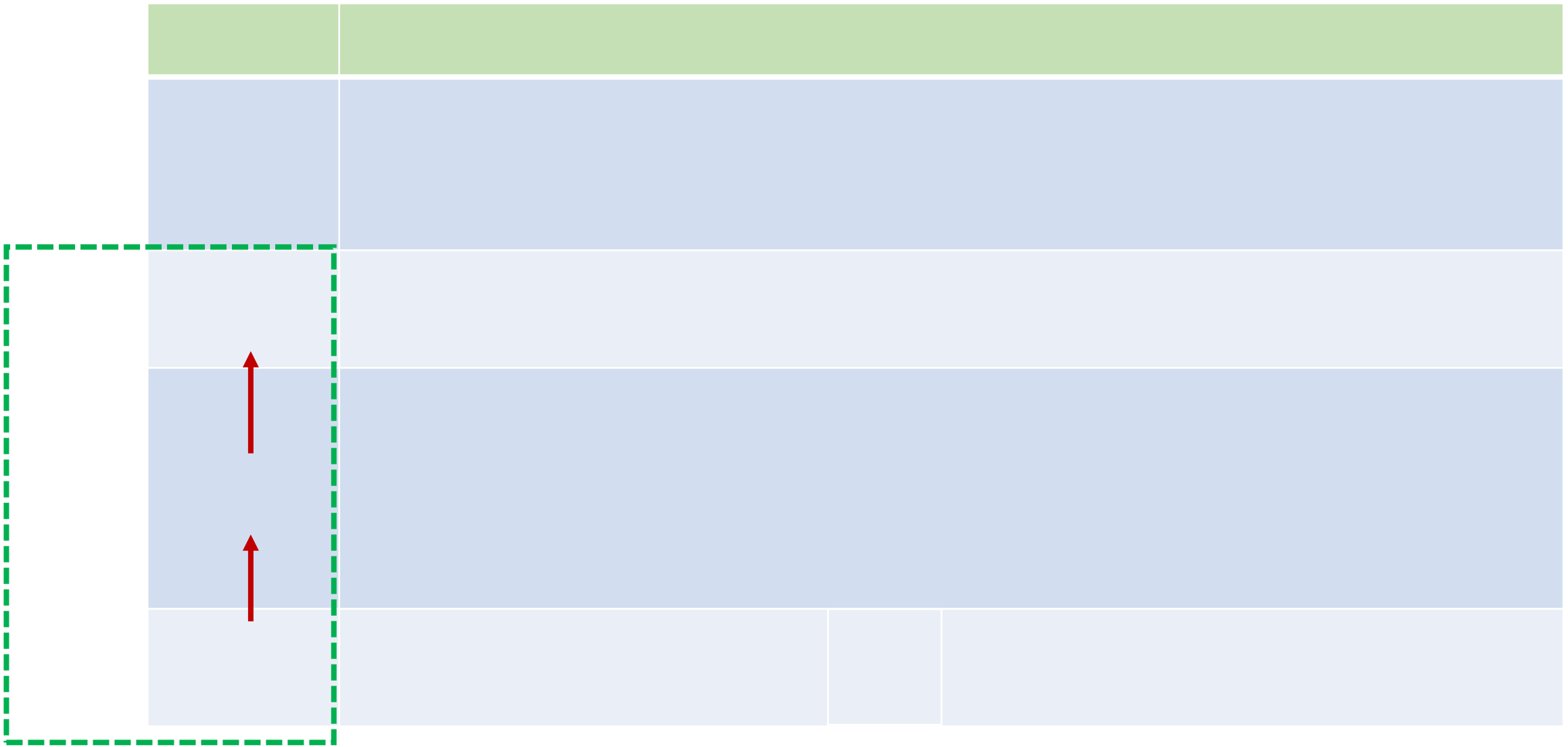
1

——物质检测

DNA RNA			
CO_2			

1

——物质检测

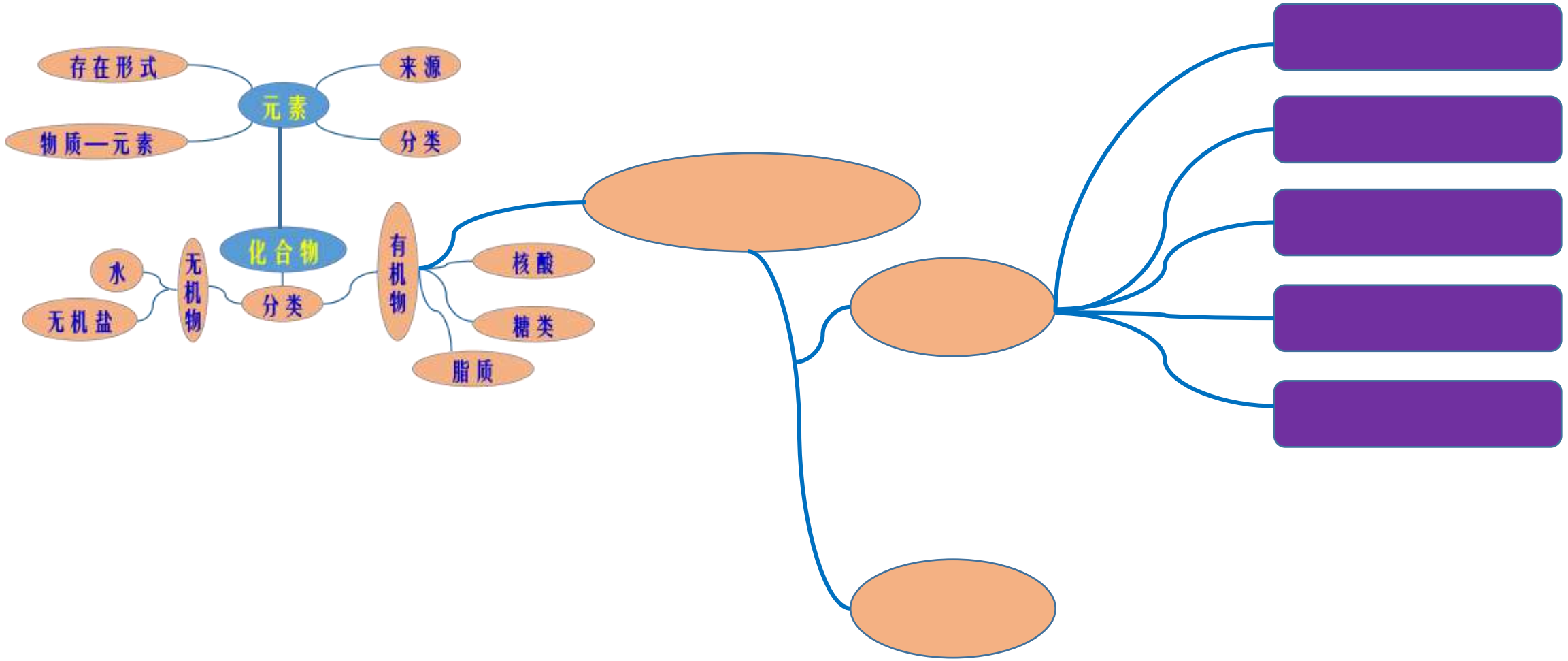


6. 2020

0.01 / $CuSO_4$

0.1 / NaOH

1



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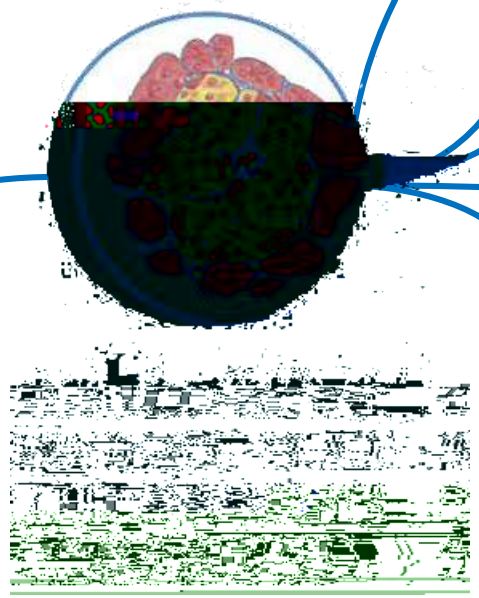
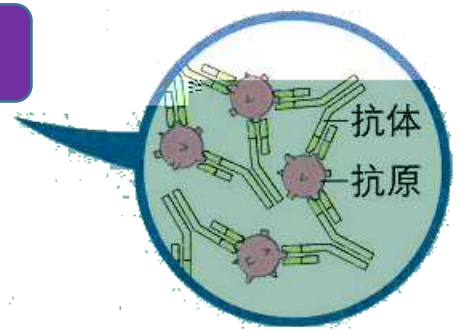
蛋白质

结构



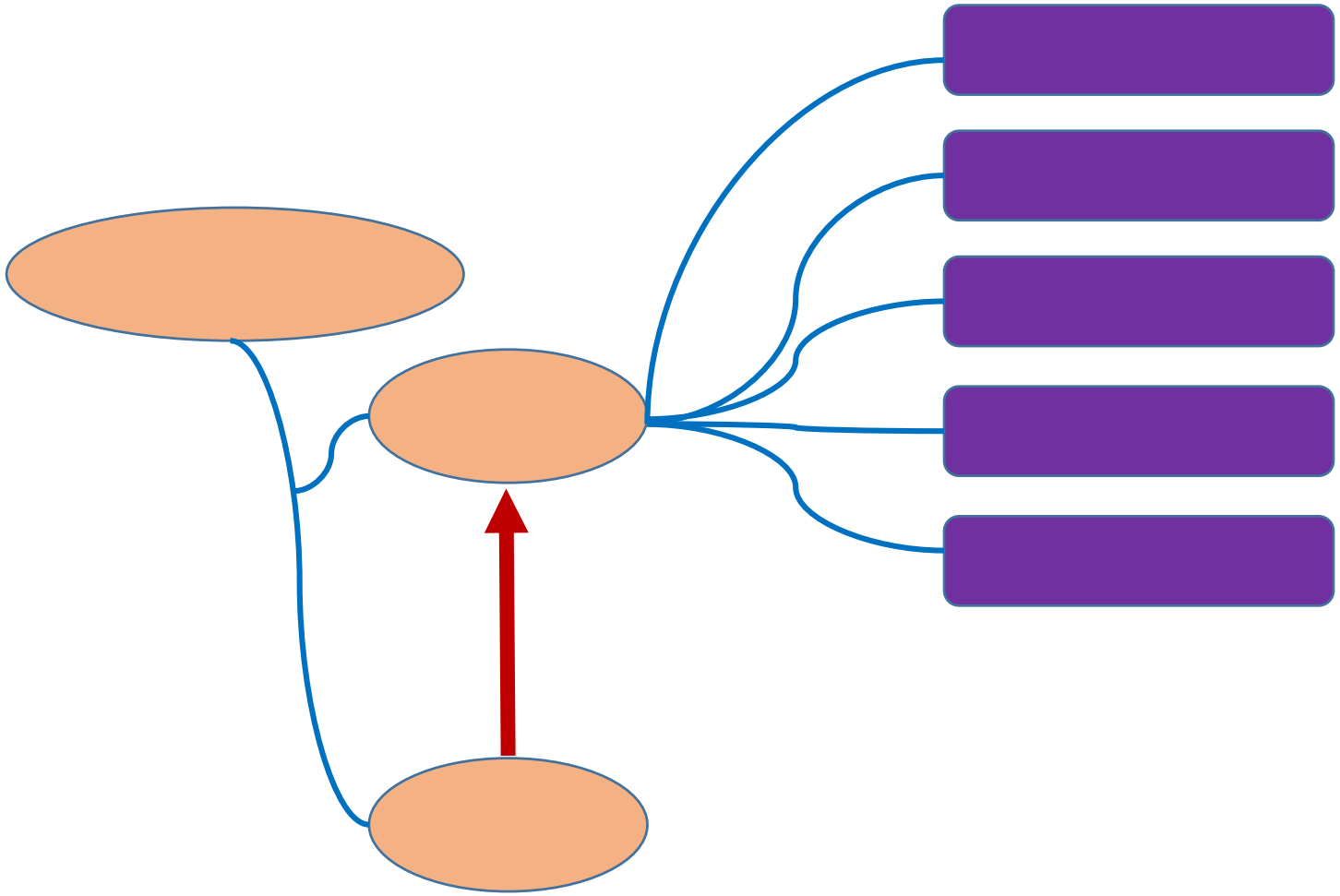
细胞中的化学反应离不开酶的催化。绝大多数酶都是蛋白质（图为胃蛋白酶结晶）。

有些蛋白质具有运输功能（图为血红蛋白示意图，能运输氧）。



有些蛋白质有免疫功能。人体内的抗体是蛋白质，可以帮助人体抵御病菌和病毒等抗原的侵害。

1



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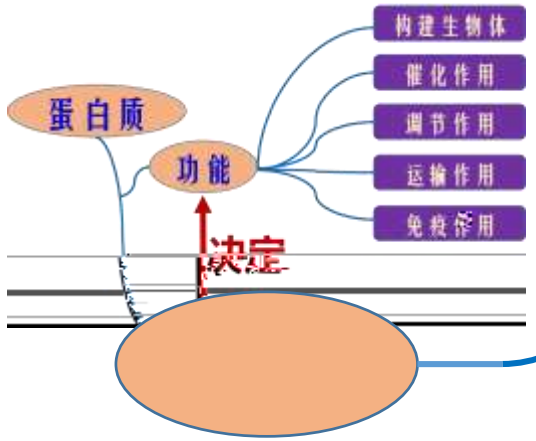
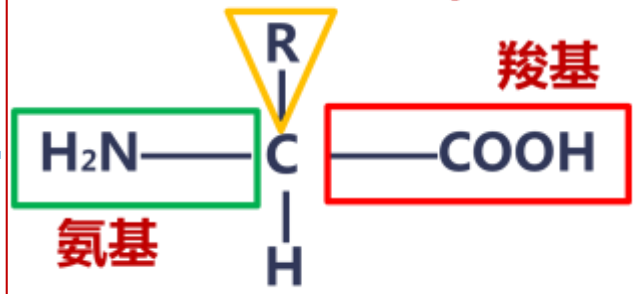


R基（侧链基团）

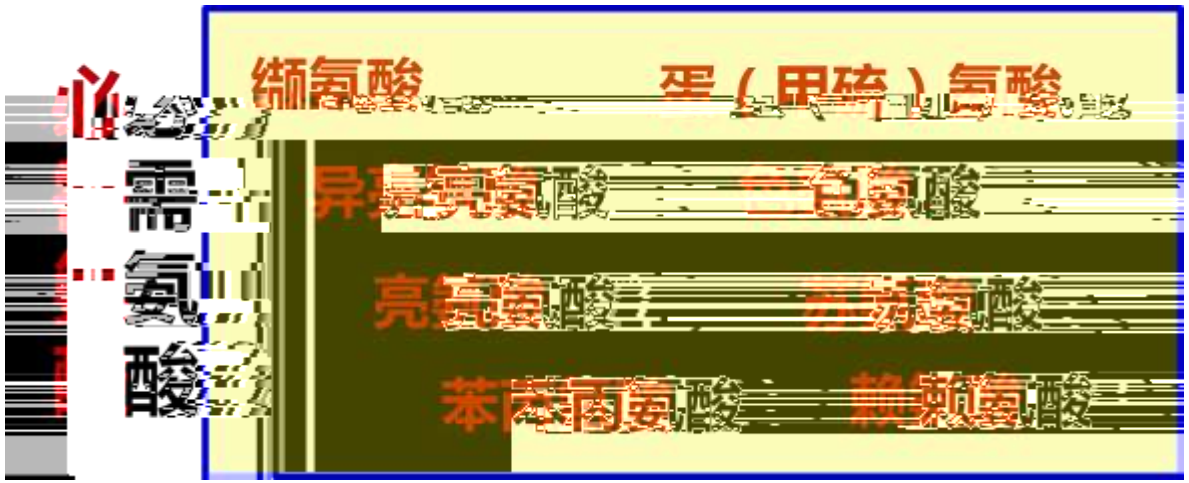
羧基



氨基

C H O N

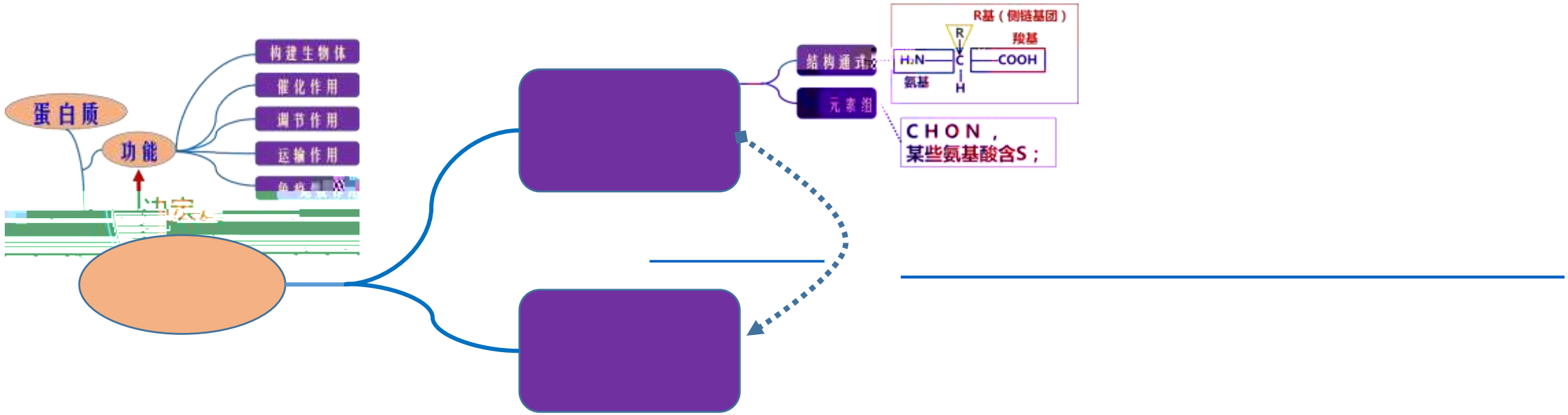
S

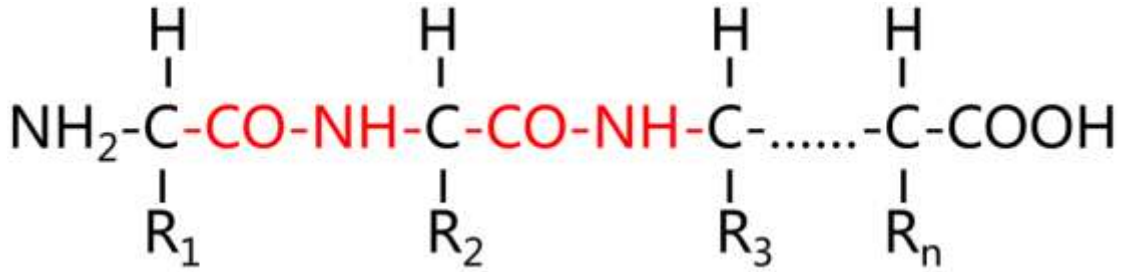


1

1/

1

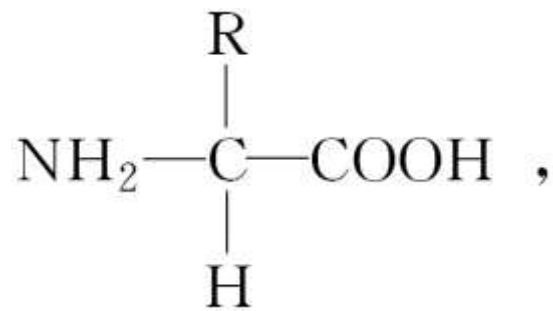

蛋白质
功能
构建生物体
催化作用
调节作用
运输作用
结构通式
元素组
R基（侧链基团）
羧基
氨基
CHON，
某些氨基酸含S；

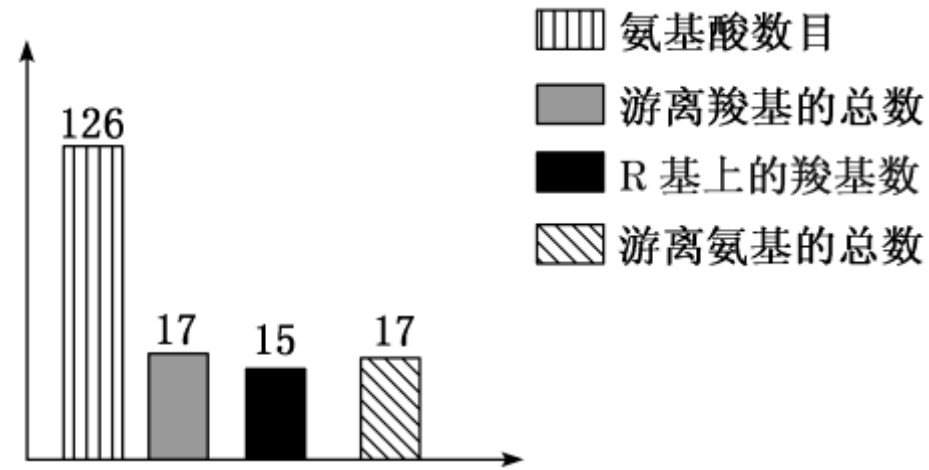

NH2-C-CO-NH-C-CO-NH-C-.....-C-COOH
R1
R2
R3
Rn

1

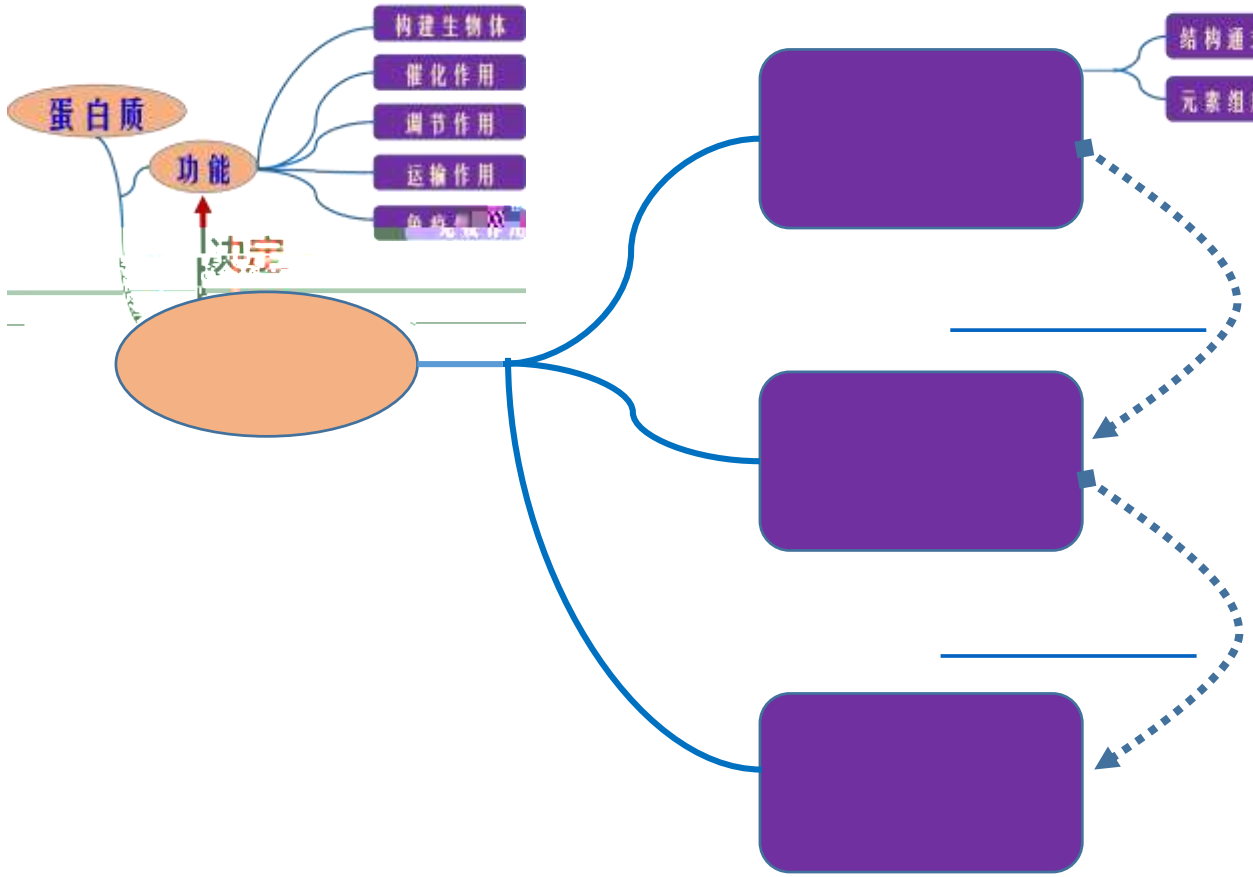
2/

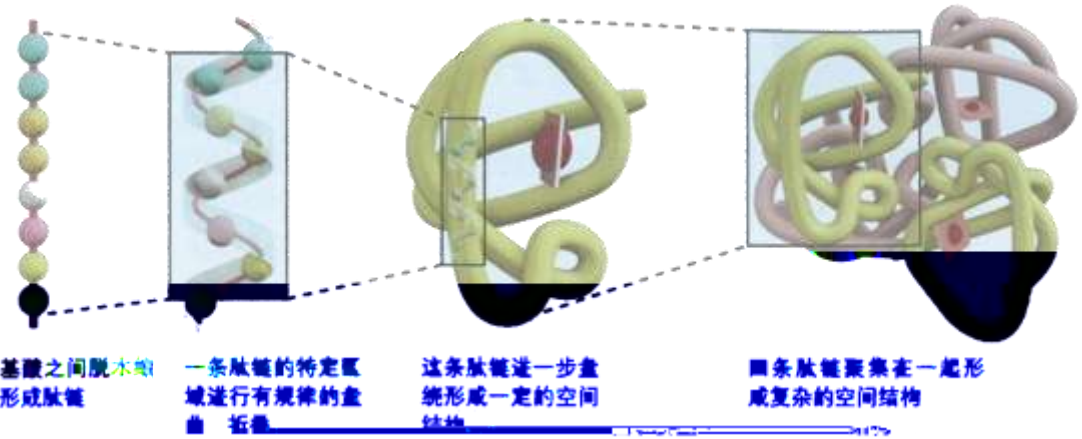
3/




氨基酸数目
游离羧基的总数
R 基上的羧基数
游离氨基的总数
126
17
15
17

1


蛋白质
功能
构建生物体
催化作用
调节作用
运输作用
决定
结构通式
元素组成
R基（侧链基团）
羧基
氨基
H₂N
COOH
C
H
R
CHON，
某些氨基酸含S；
发生脱水缩合需要什么条件？
模板： tRNA： 原料： 能量：
如何确定氨基酸的排列顺序？
以mRNA为模板，上有密码子以
确定氨基酸的排列顺序：


氨基酸之间脱水缩
合形成肽链
一条肽链的特定区
域进行有规律的盘
曲 折叠
这条肽链进一步盘
绕形成一定的空间
结构
四条肽链聚集在一起形
成复杂的空间结构

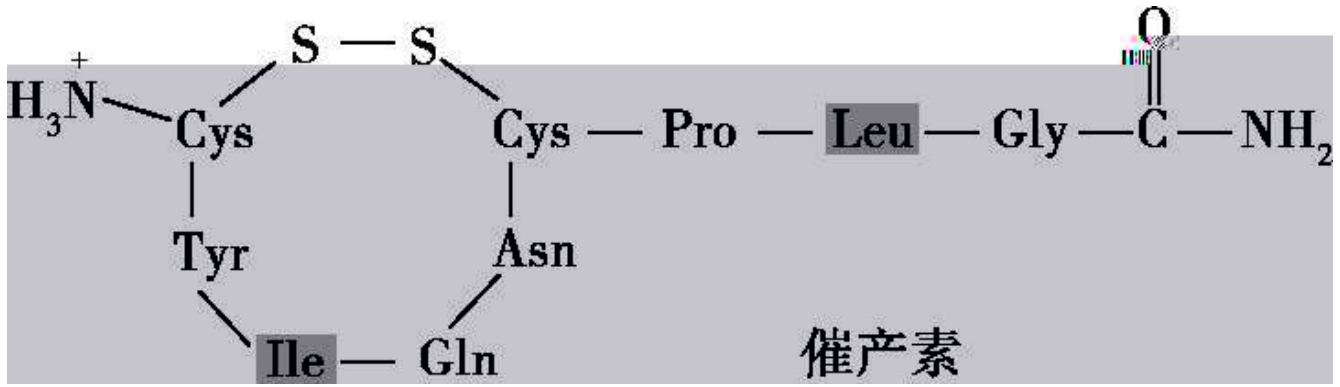
1

4/

3 (2018 ,5,2) ,

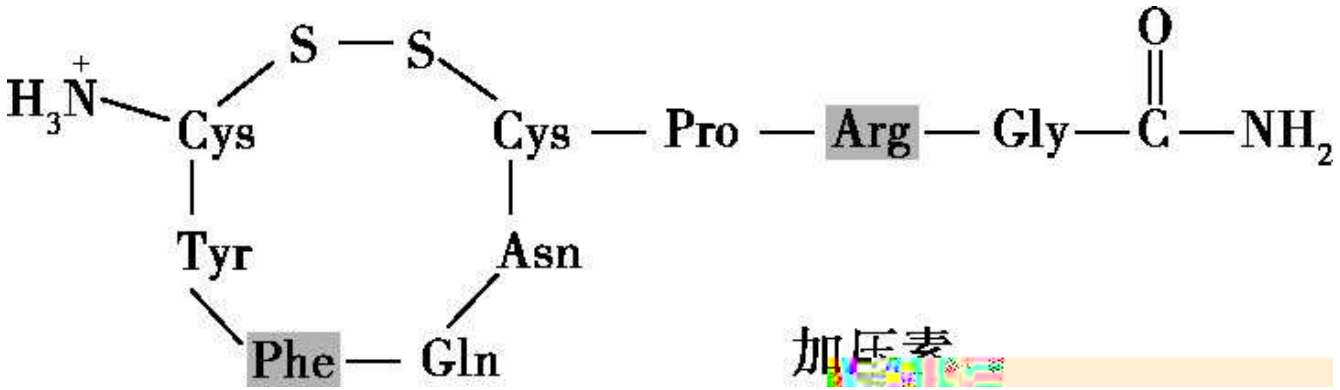
, 3

A.



B.

C.



D. 2

D , ,

,A ;

,B ; R ,

,C ; 2

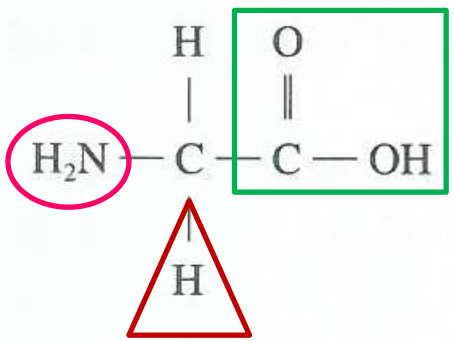
, , ,D

1

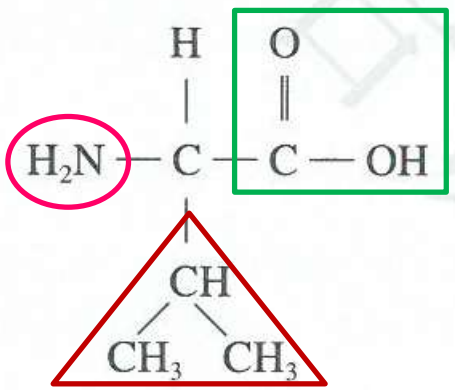
思考 · 讨论

氨基酸的结构特点

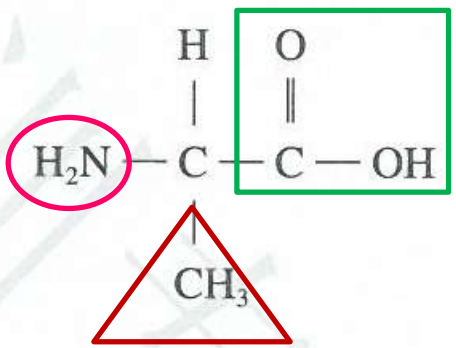
观察下列几种氨基酸的结构。



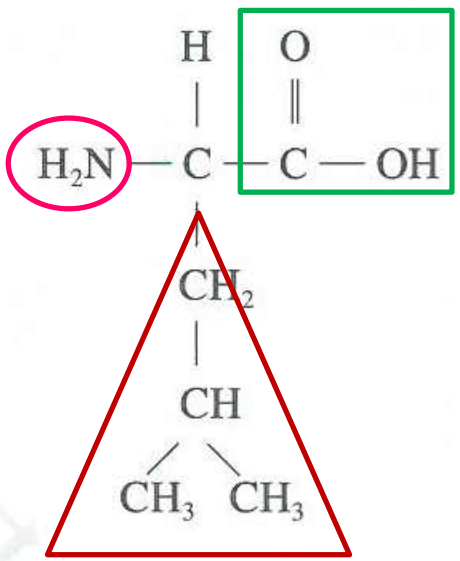
甘氨酸



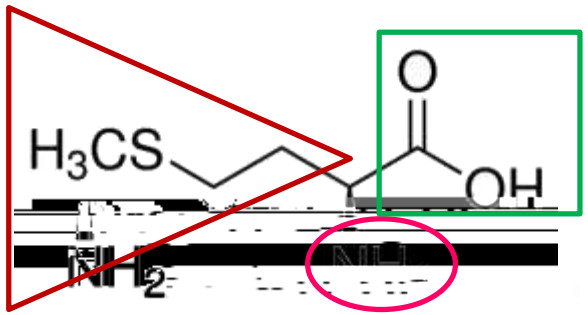
缬氨酸



丙氨酸



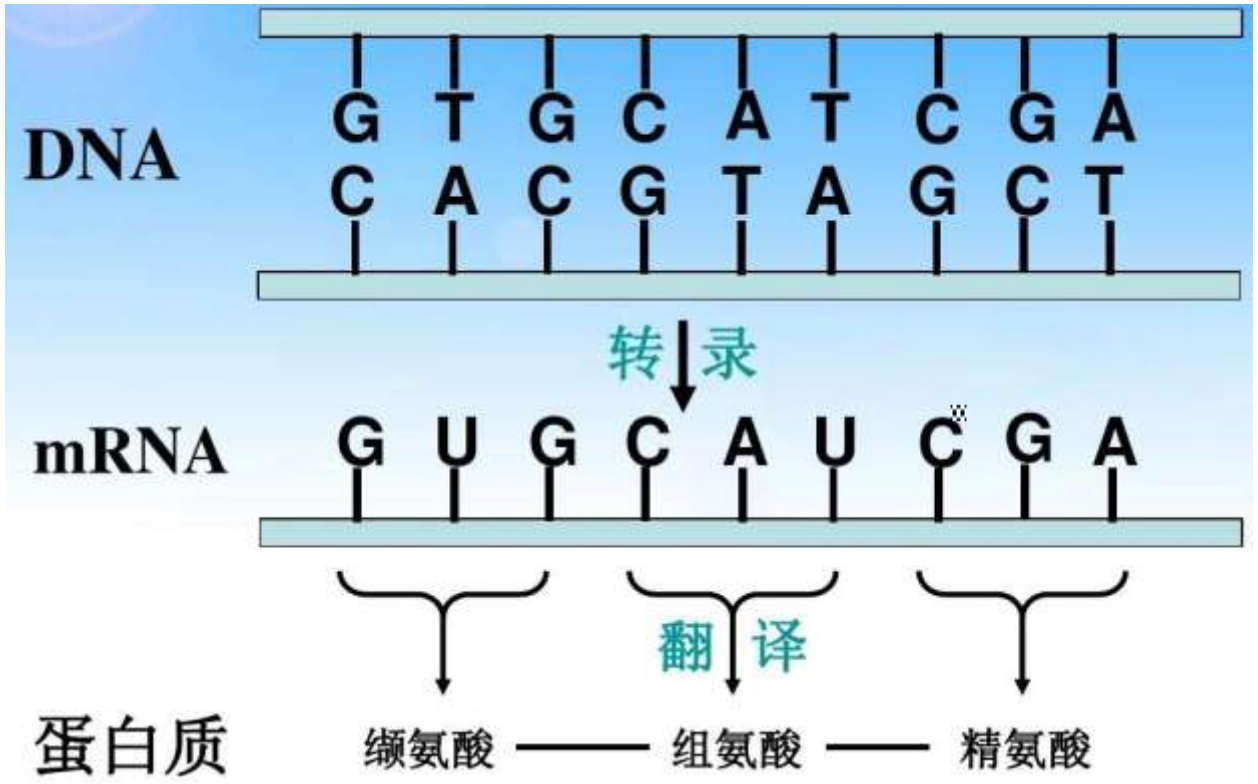
亮氨酸



1

2

1

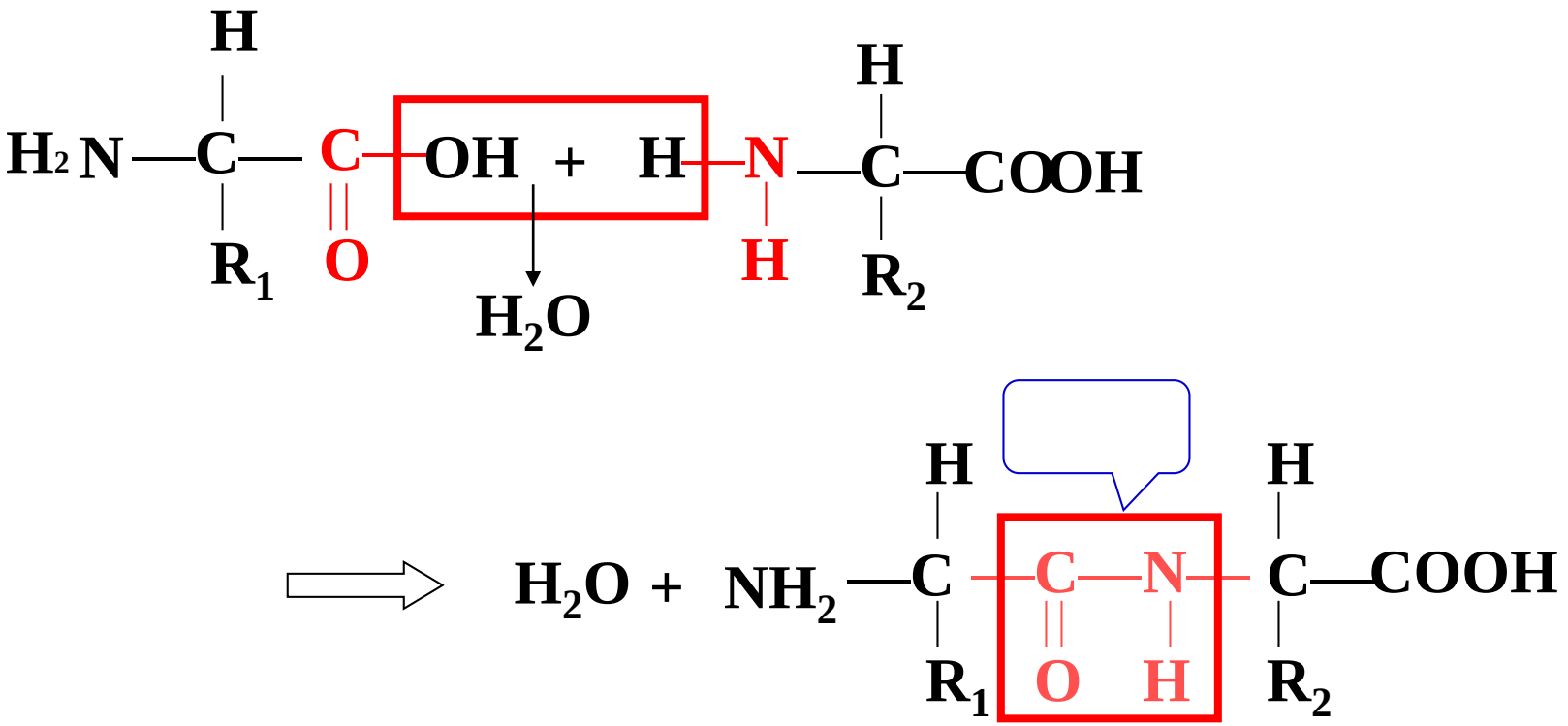

DNA
G T G C A T C G A
C A C G T A G C T
转录
mRNA
G U G C A U C G A
翻译
蛋白质
缬氨酸 —— 组氨酸 —— 精氨酸

6

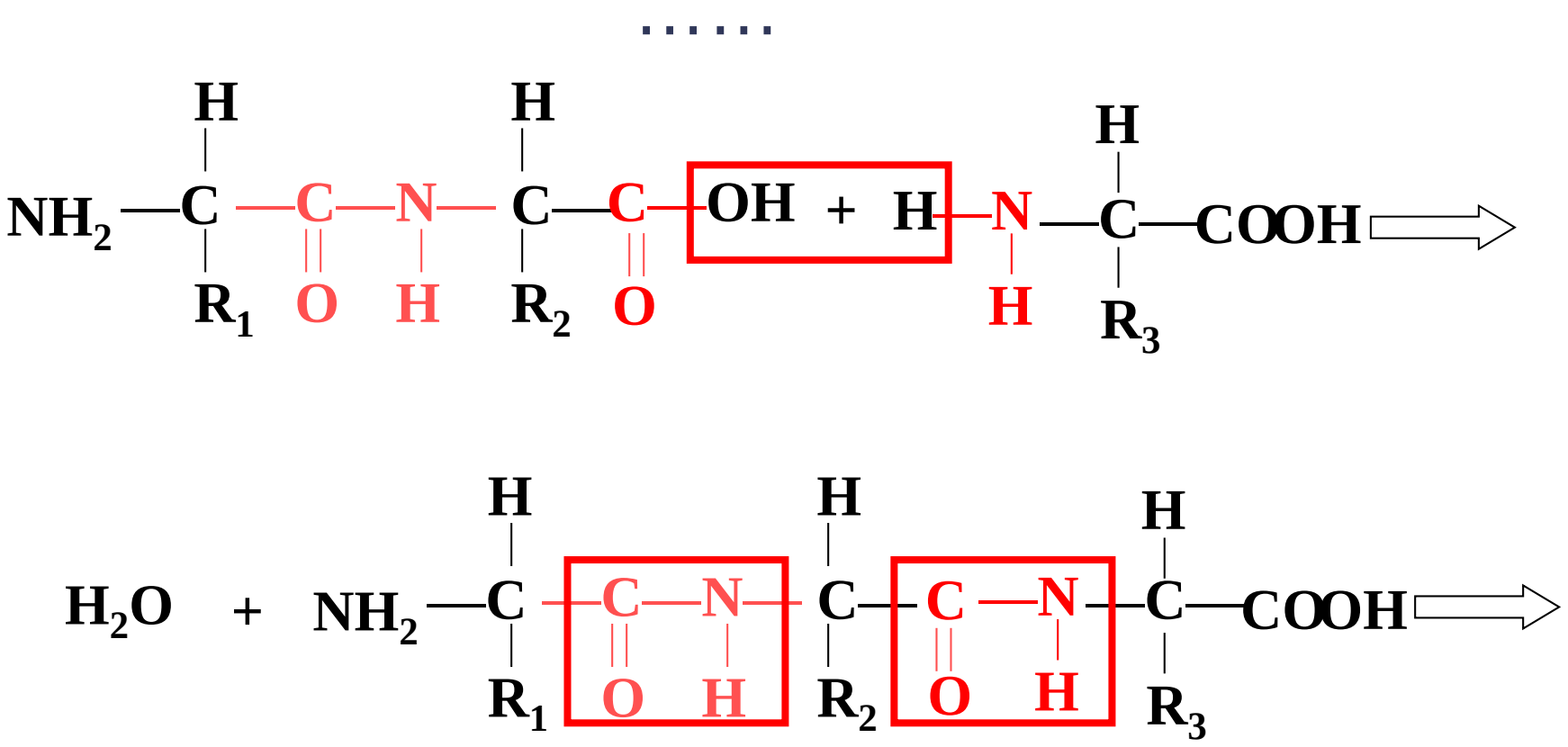
3

1

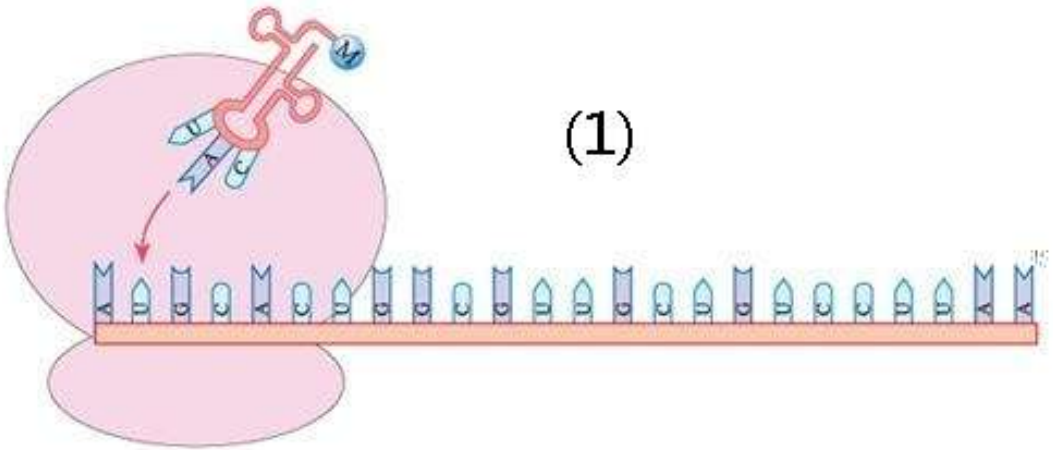
1

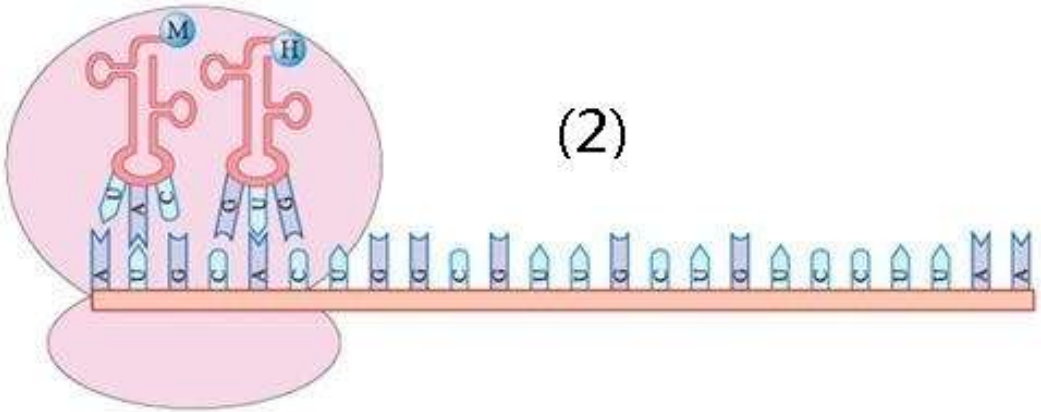


1

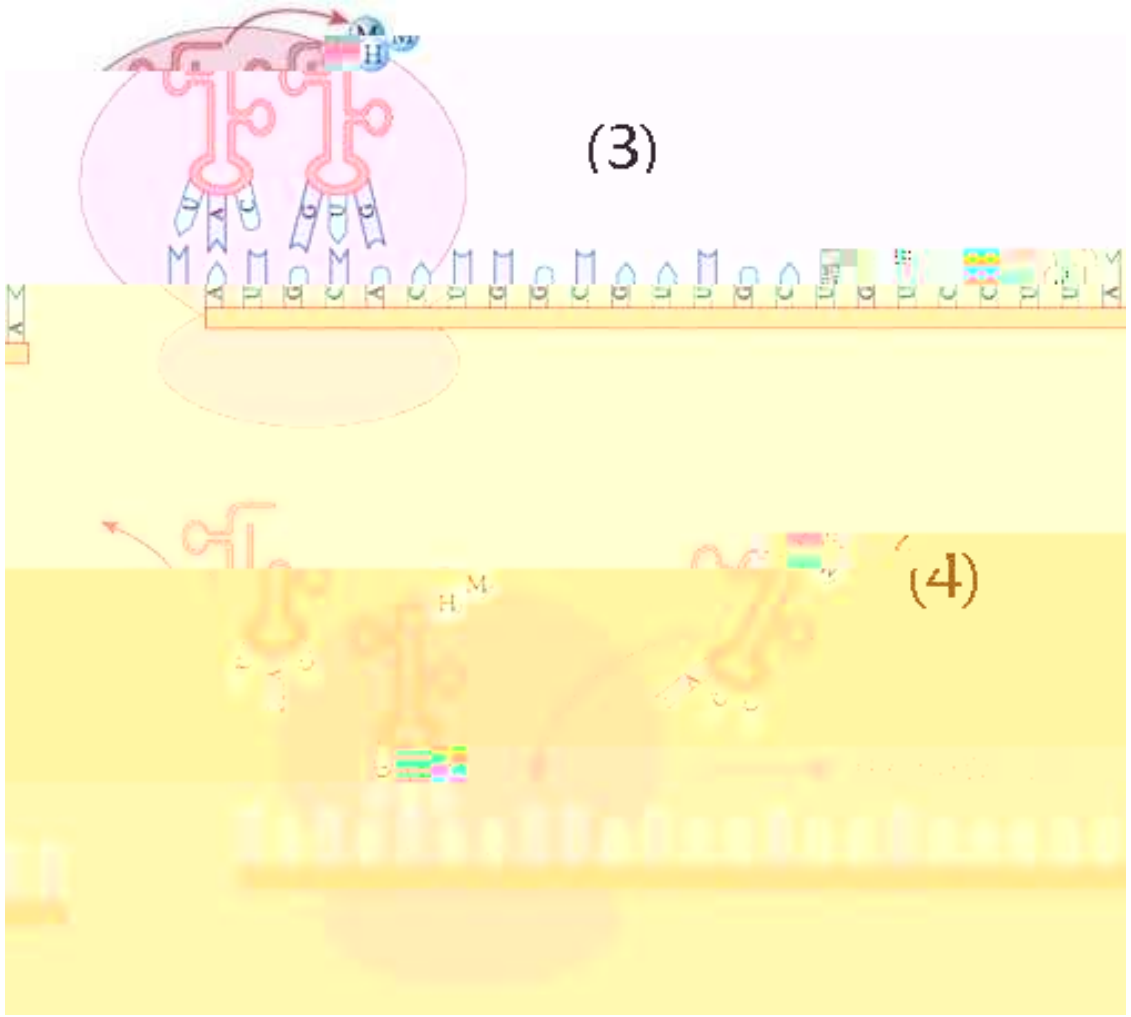


1





1



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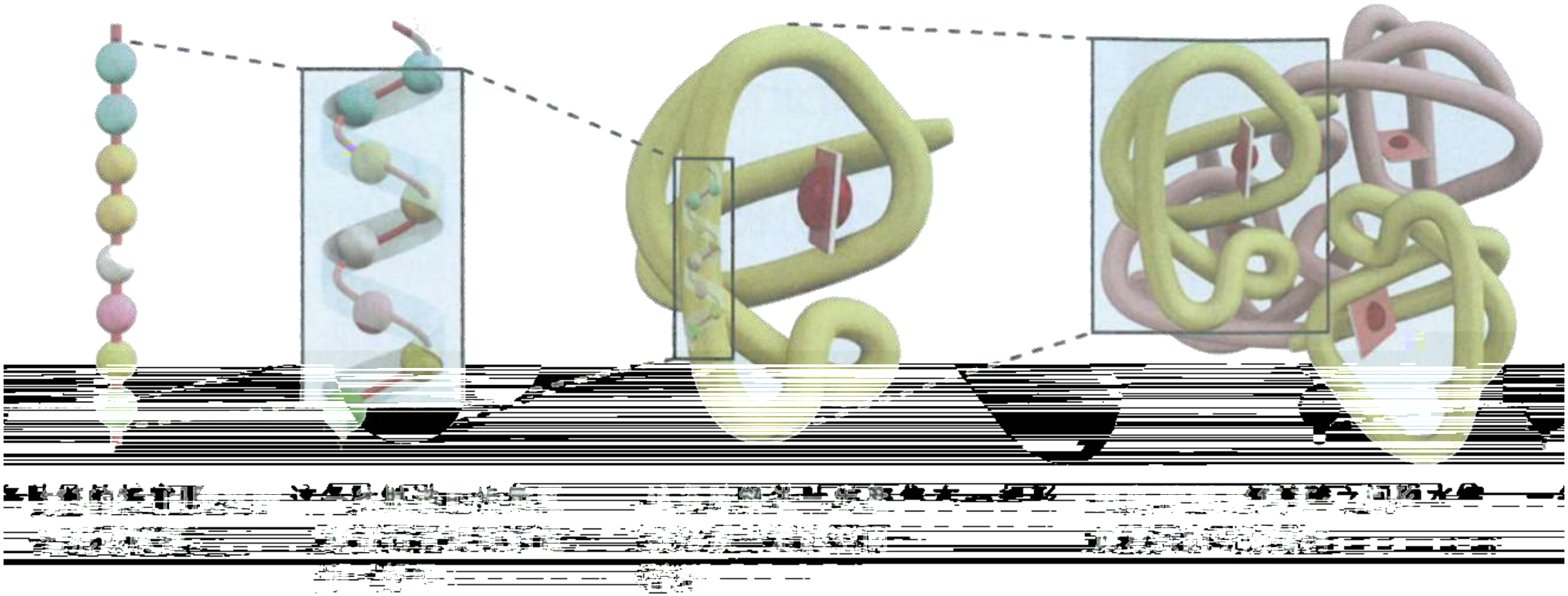
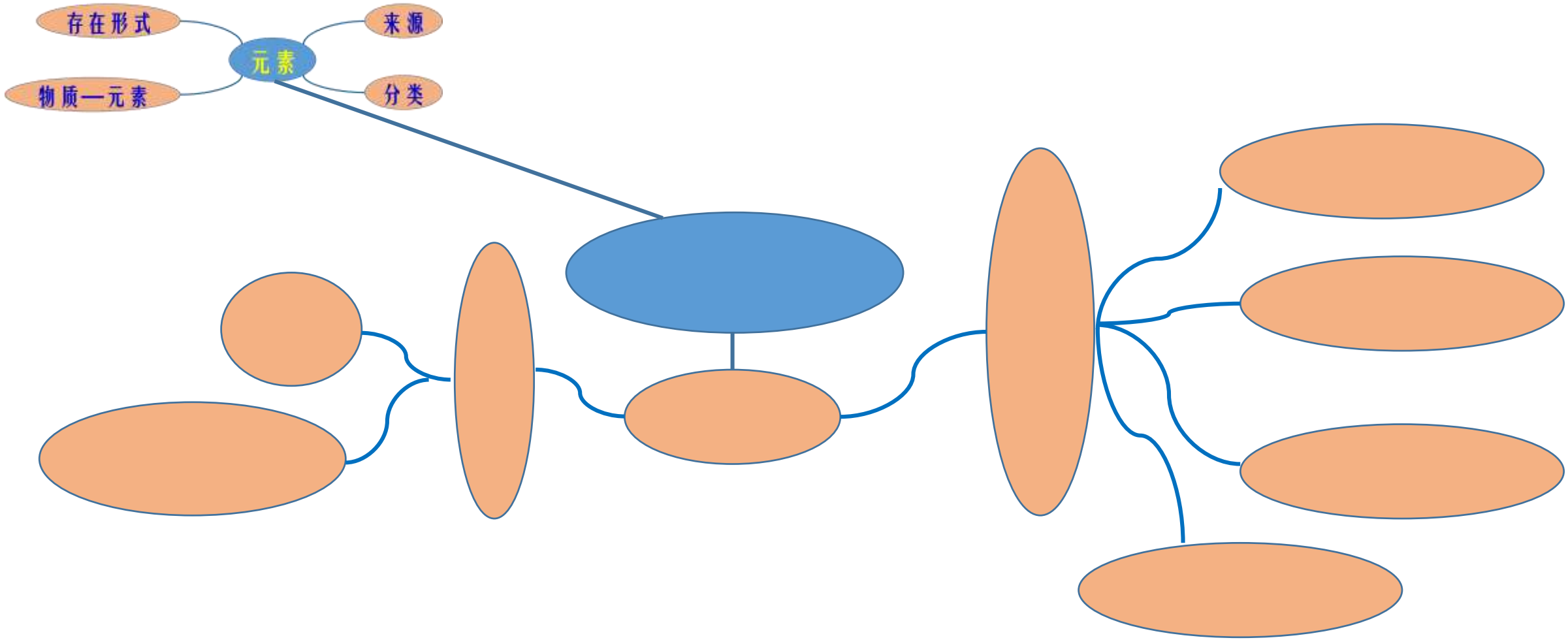
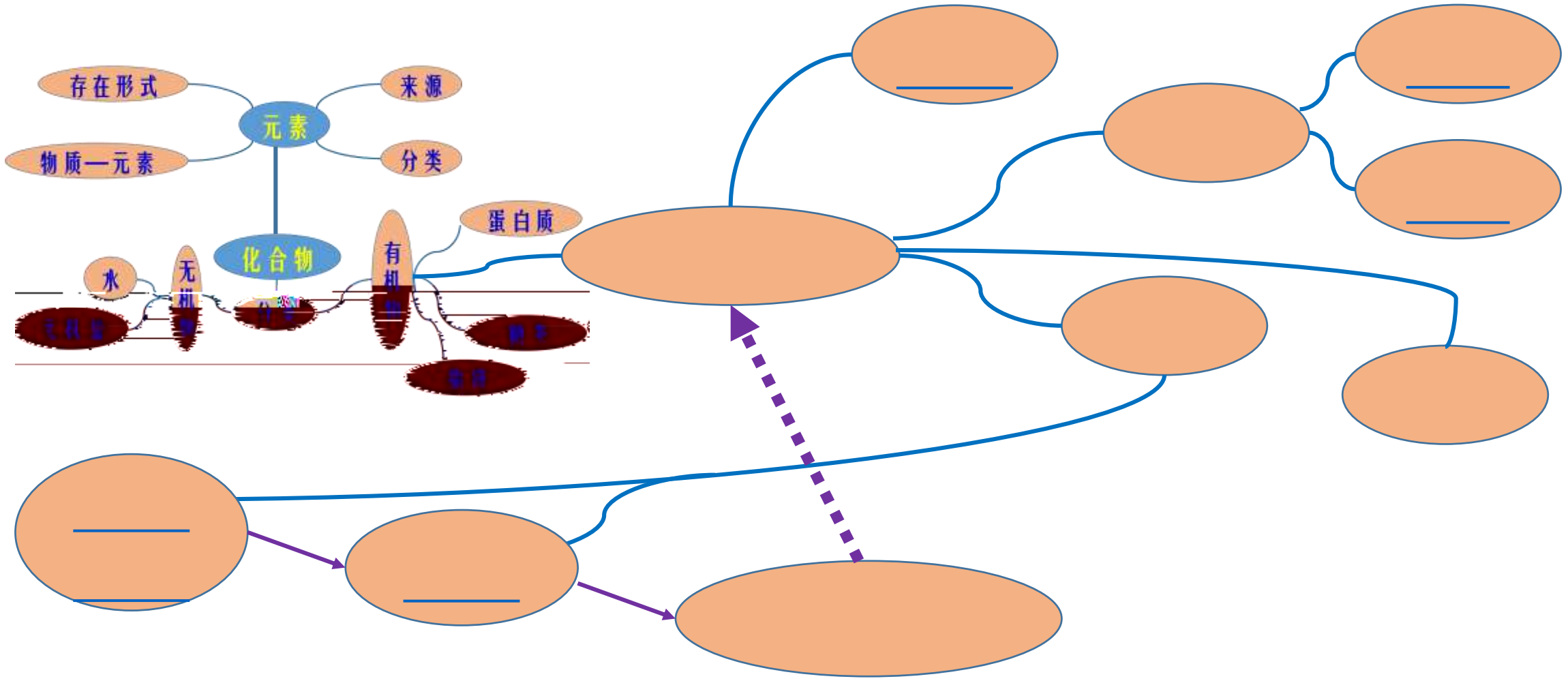


4-

1



1

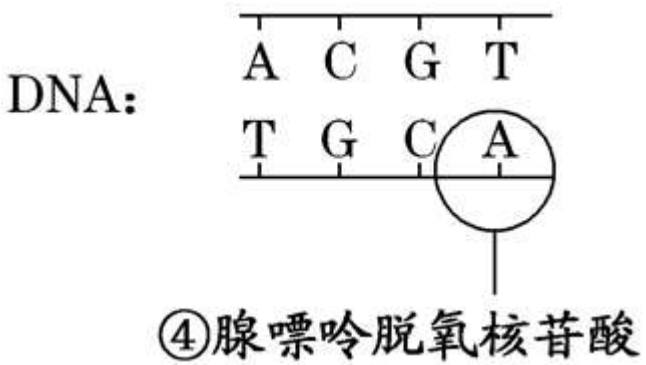


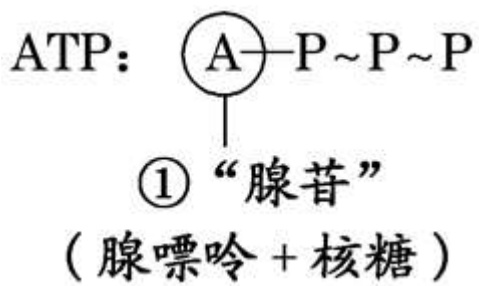
1

1/DNA DNA

DNA

2/DNA RNA ATP “A”





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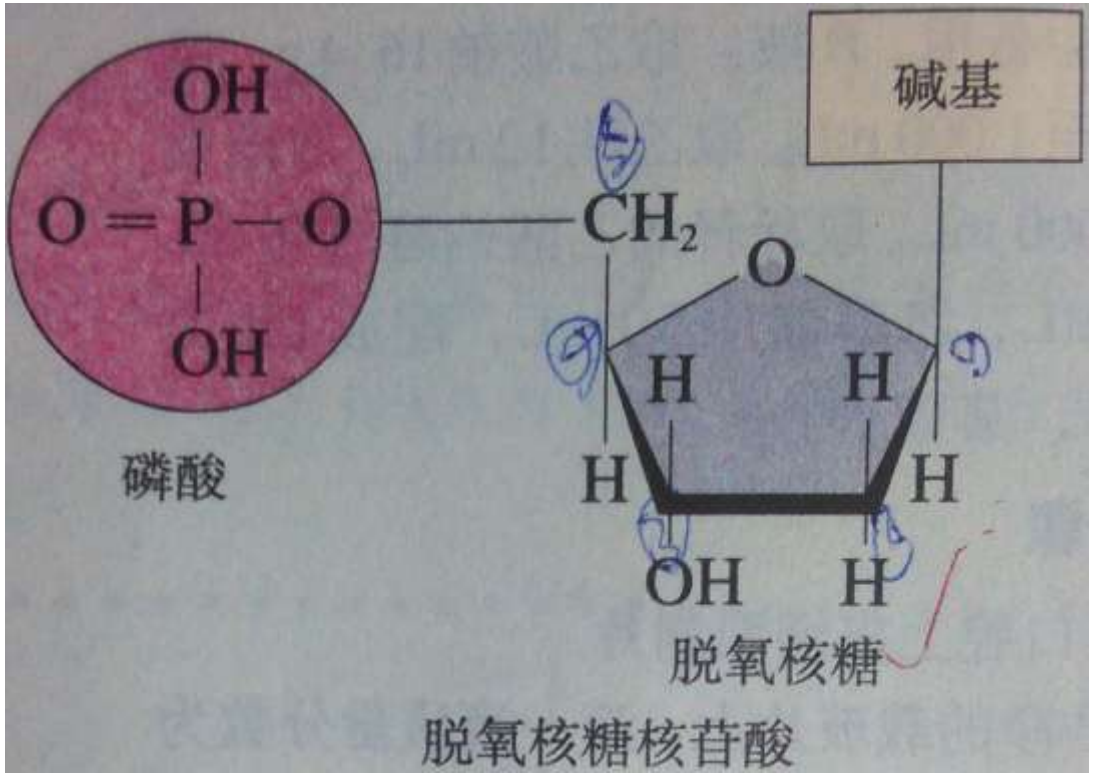
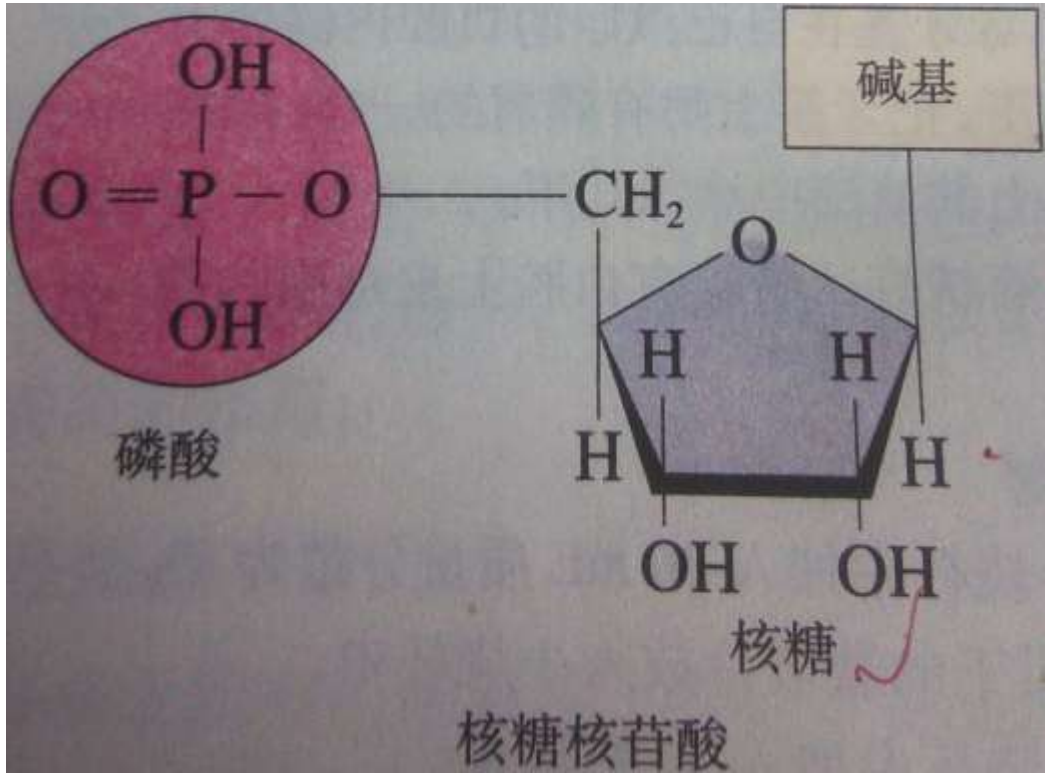
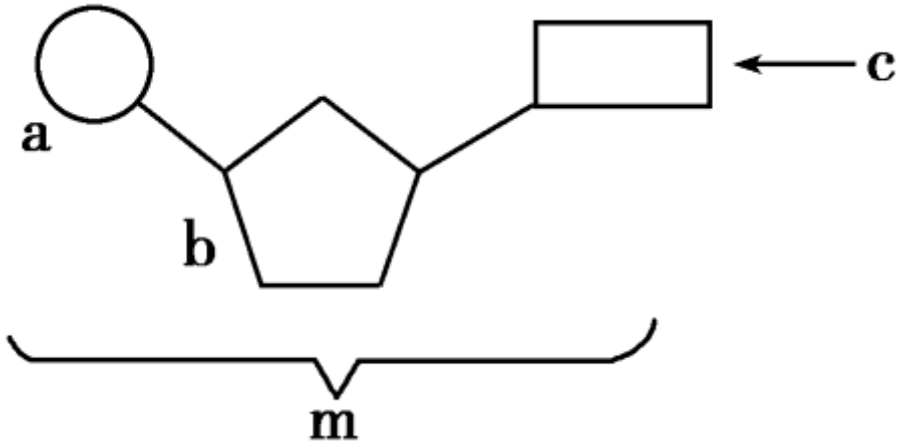

碱基
OH
O=P−O
OH
CH2
O
H
H
H
H
OH
H
磷酸
脱氧核糖
脱氧核糖核苷酸


碱基
OH
O=P−O
OH
CH2
O
H
H
H
H
OH
OH
磷酸
核糖
核糖核苷酸

1 a b c m



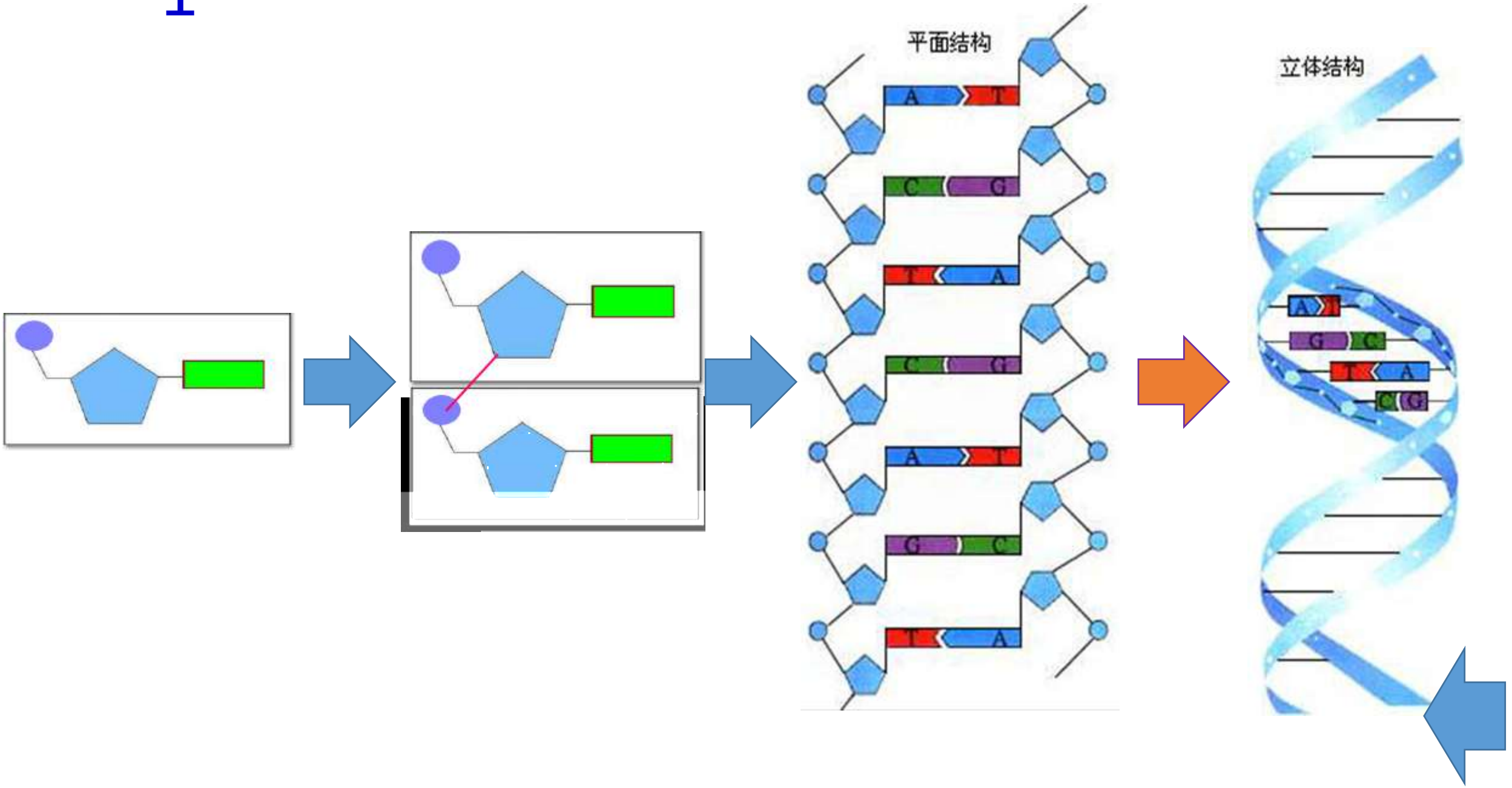
A c m

B m 4

C ATP m

D b c

1



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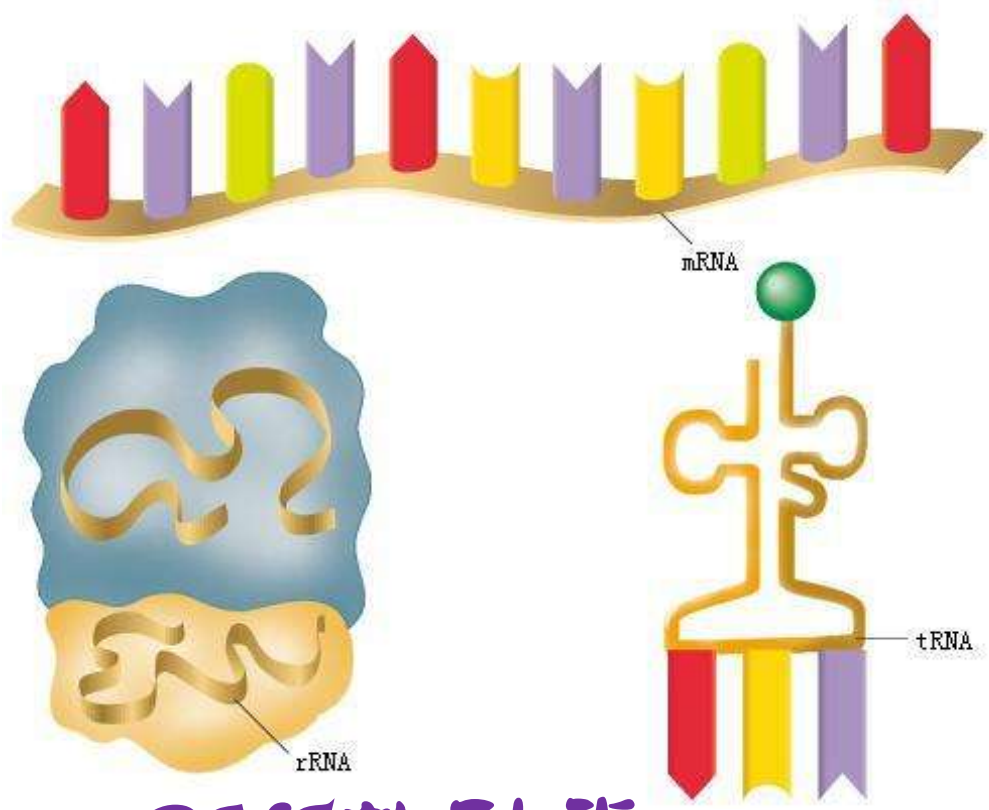
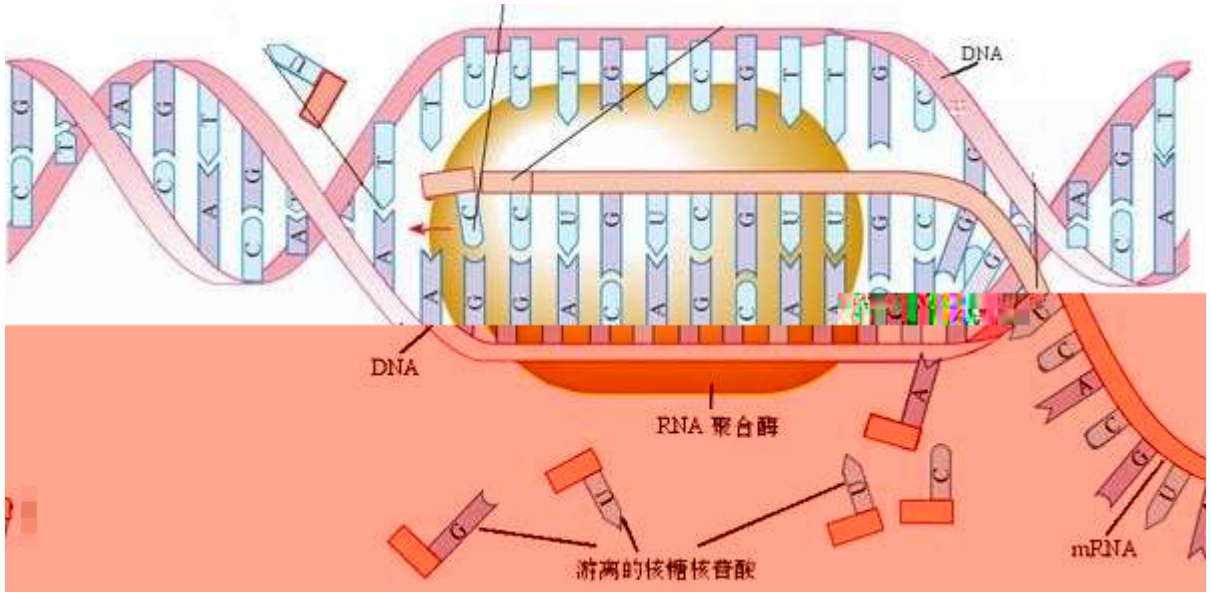


RNA的种类



RNA的合成

2 （ ）

A RNA

B SARS 5

C DNA ATP

D DNA A T

DNA

——（ ）

A “DNA RNA ”

→ → → →

B “DNA RNA ”

C

D

D

祝你进步　學業有成

ZHU NI JIN BU XUE YE YOU CHENG