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ATP



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. H<sub>2</sub>O CO<sub>2</sub> ( )

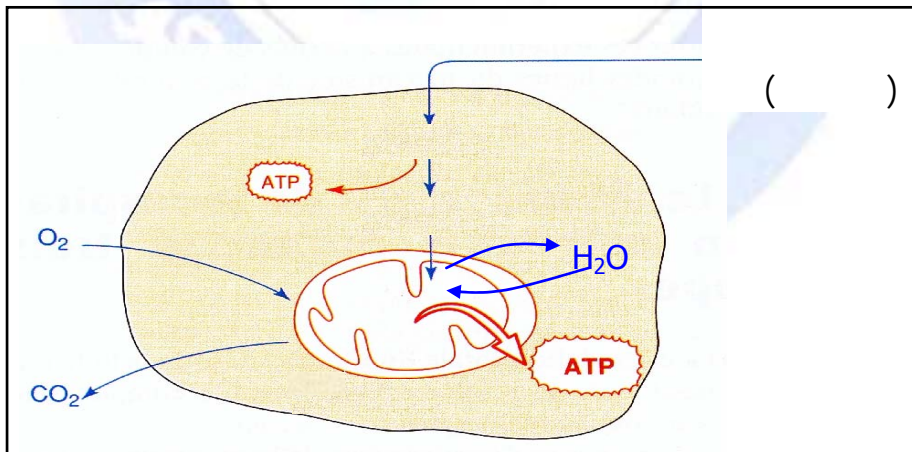
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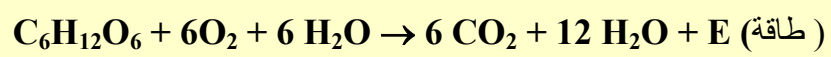


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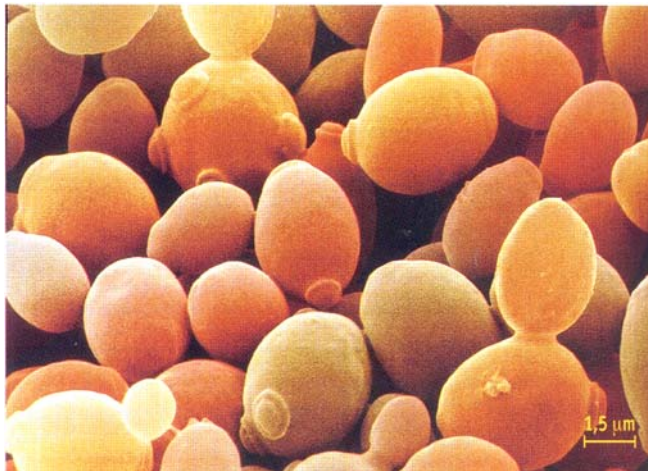
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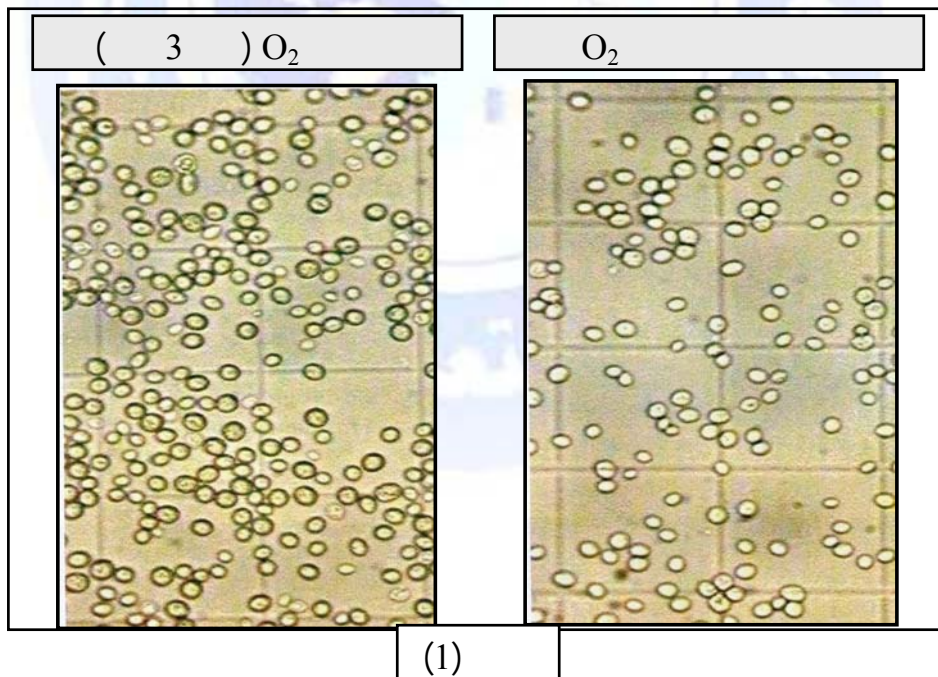
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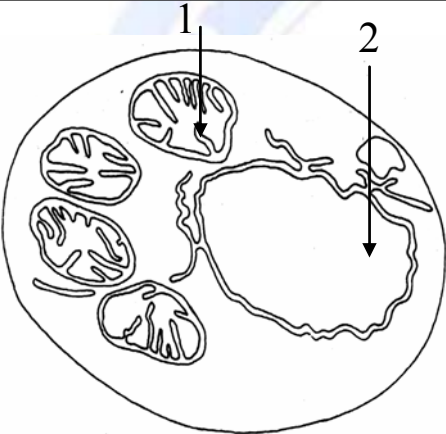


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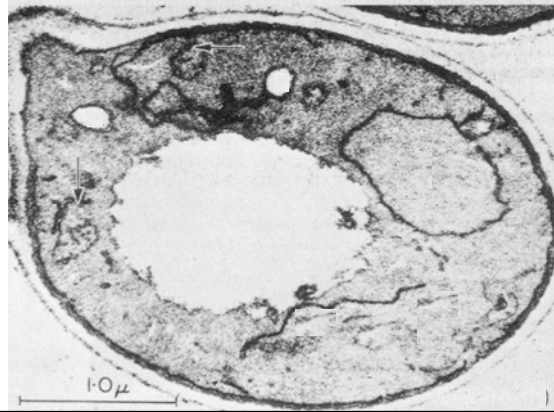
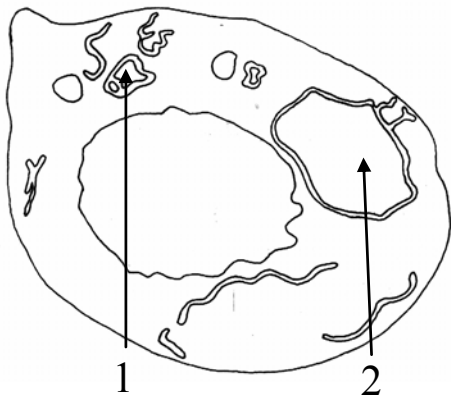
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O<sub>2</sub>





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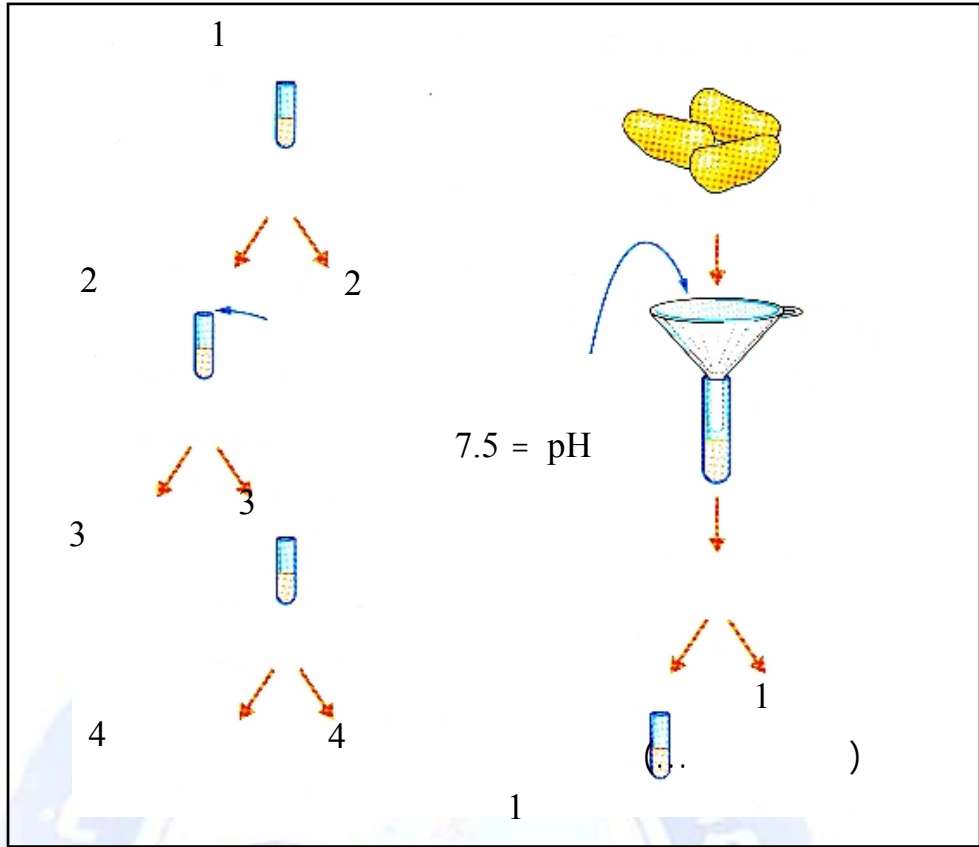
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CO<sub>2</sub> \*

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O <sub>2</sub>	O <sub>2</sub>	
CO <sub>2</sub>	CO <sub>2</sub>	+ :
CO <sub>2</sub>	CO <sub>2</sub>	+
CO <sub>2</sub>	CO <sub>2</sub>	:
CO <sub>2</sub>	CO <sub>2</sub>	:

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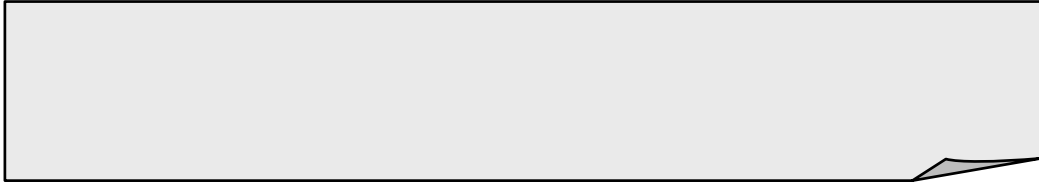
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$O_2$

$CO_2$

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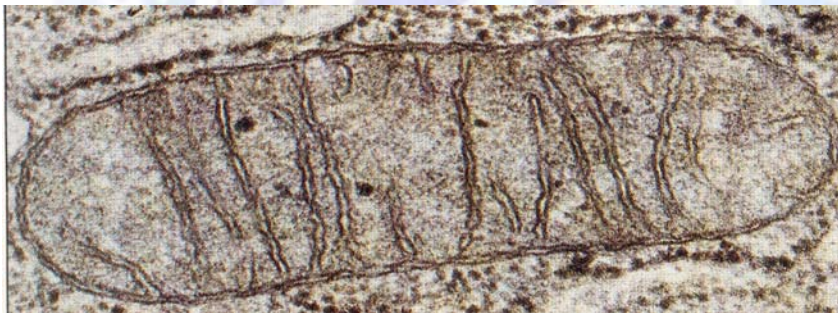
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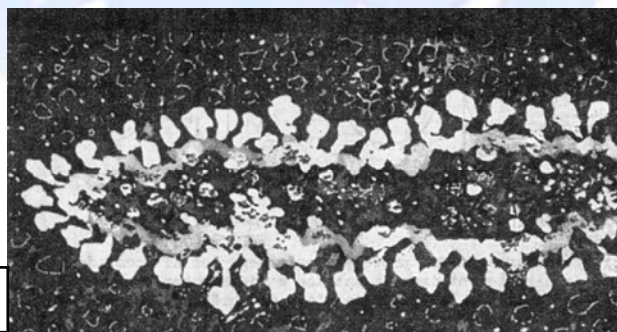
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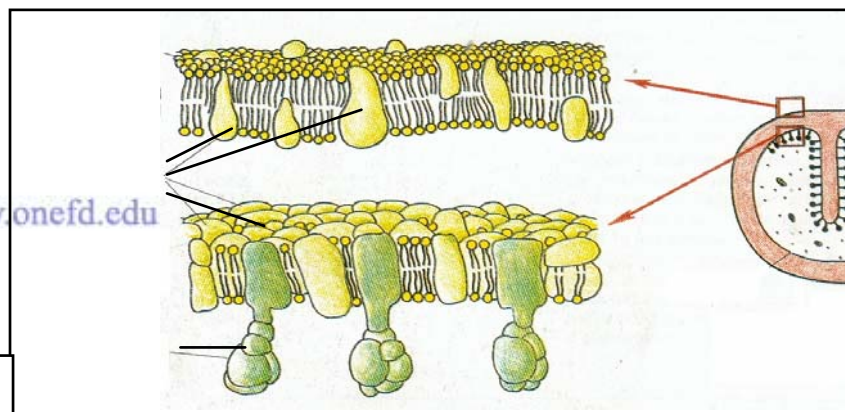


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<http://www.onefd.edu>



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	<div>% 50    % 40    ■</div> <div>% 60    %50    ■</div>	
/ ATP	<div>% 20    ■</div> <div>% 80    ■</div>	
	<div>■</div> <div>ATP</div> <div>■</div>	
	<div>■</div> <div>■</div>	

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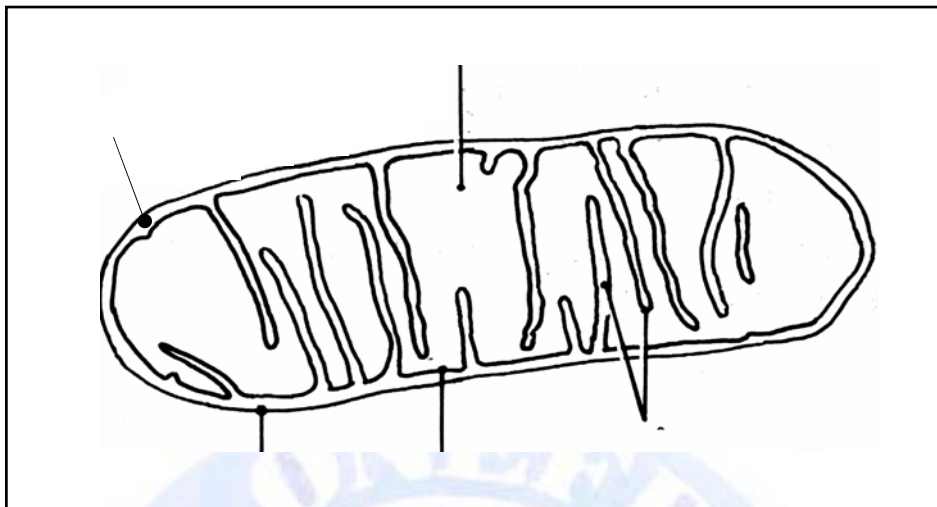
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## II

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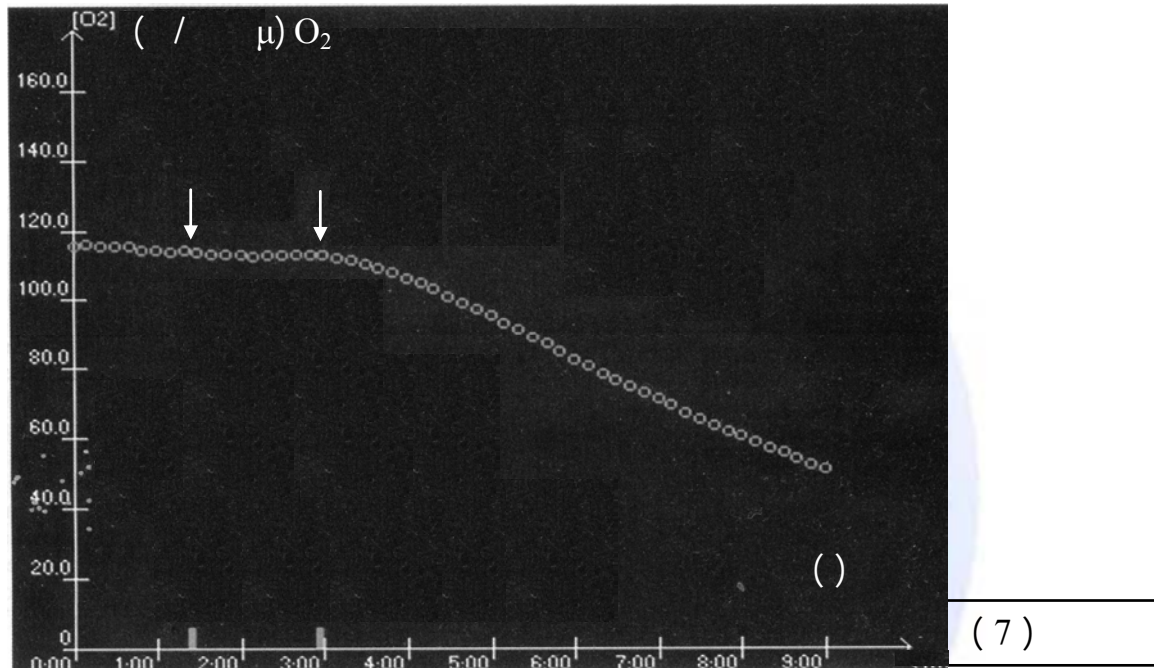
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$O_2$

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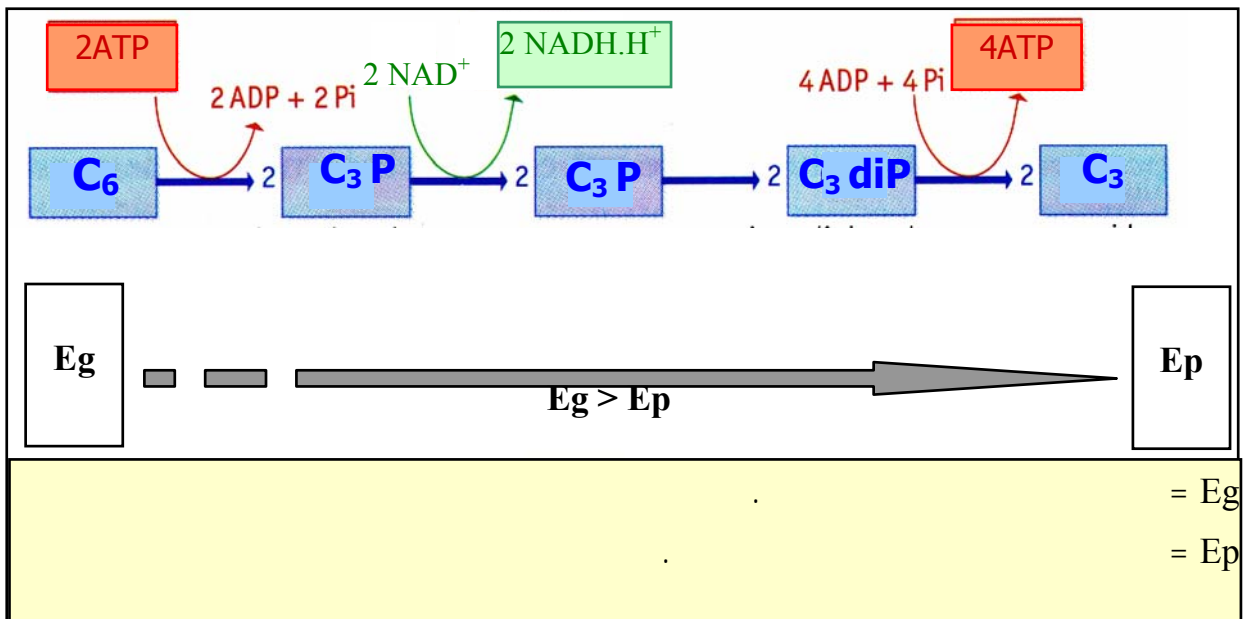
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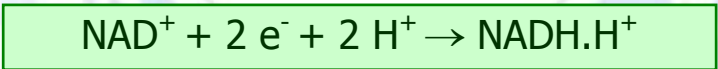
$NAD^+$

$NADH.H^+$

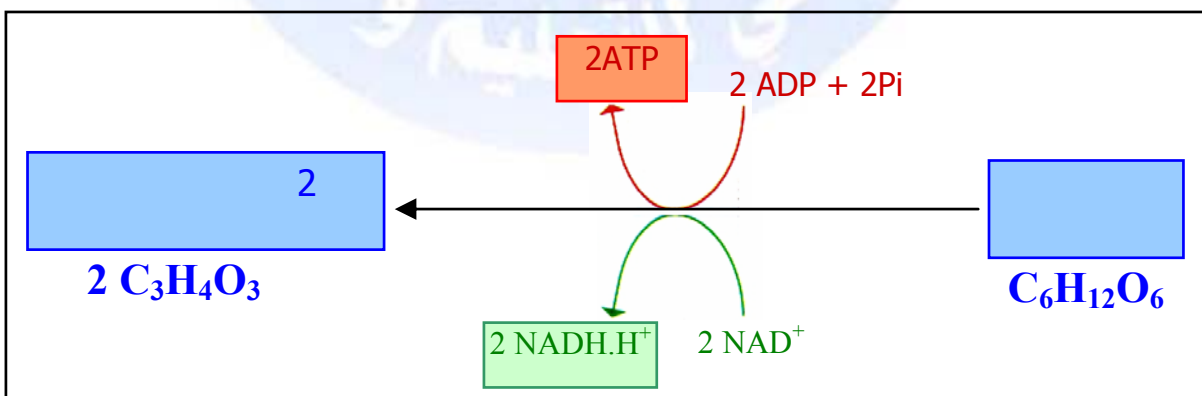
$NAD^+$

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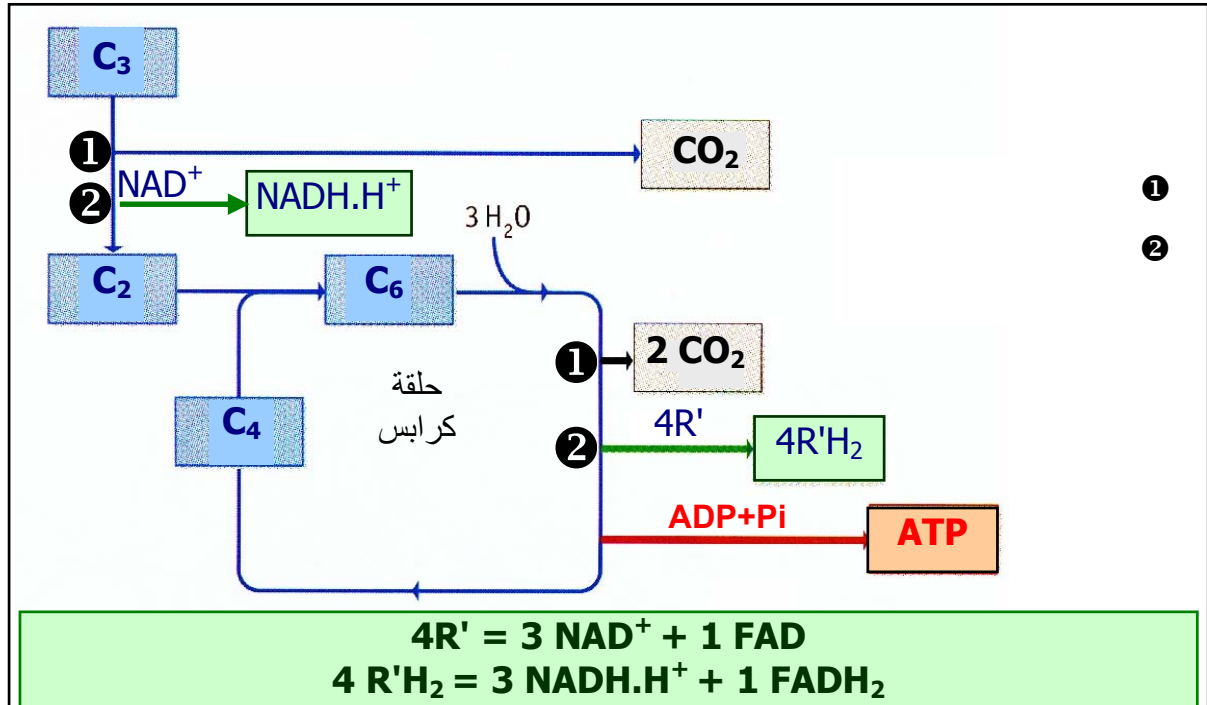
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حلقة "كرابس".

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NADH.H<sup>+</sup>

NAD<sup>+</sup>

CO<sub>2</sub>

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CO<sub>2</sub>

NADH.H<sup>+</sup>

FAD

NAD<sup>+</sup>

.(FADH<sub>2</sub>

NADH.H<sup>+</sup>

3 ) FADH<sub>2</sub>

ATP

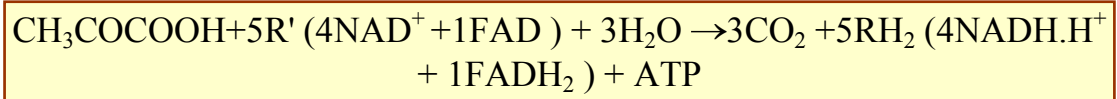
ADP

<http://www.onefd.edu.dz>

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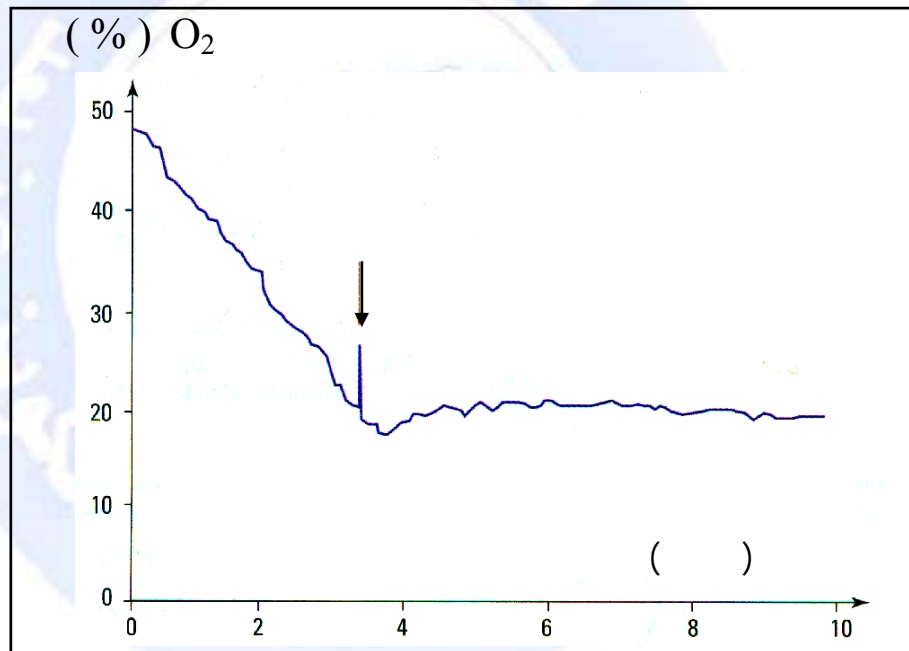


[  $\text{NADH.H}^+$     $\text{FADH}_2$  ]  
ATP                       $\text{O}_2$

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$\text{O}_2$  (11)



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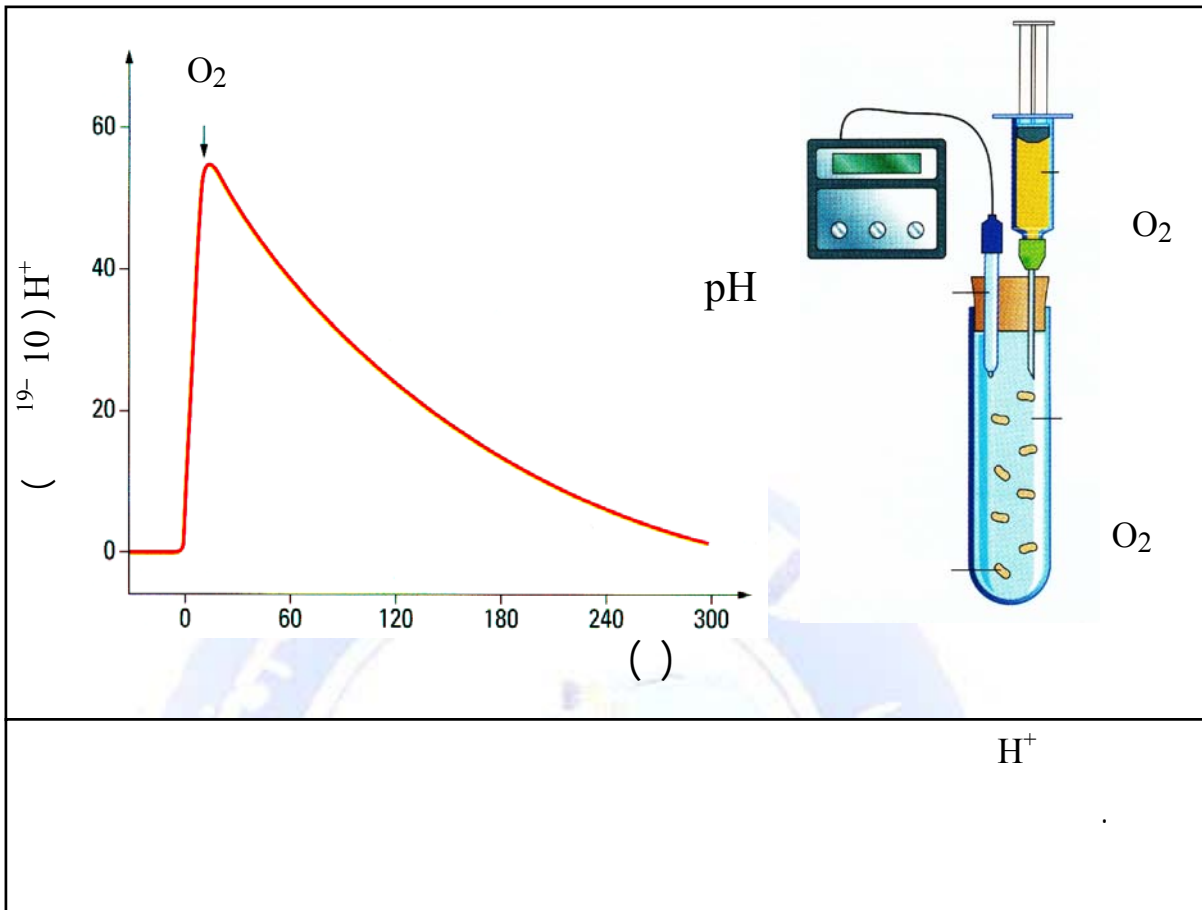
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$\text{O}_2$   
(12) <http://www.onefd.edu.dz>

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$\text{O}_2$



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$H^+$

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( 0 60 X 10<sup>-9</sup> )

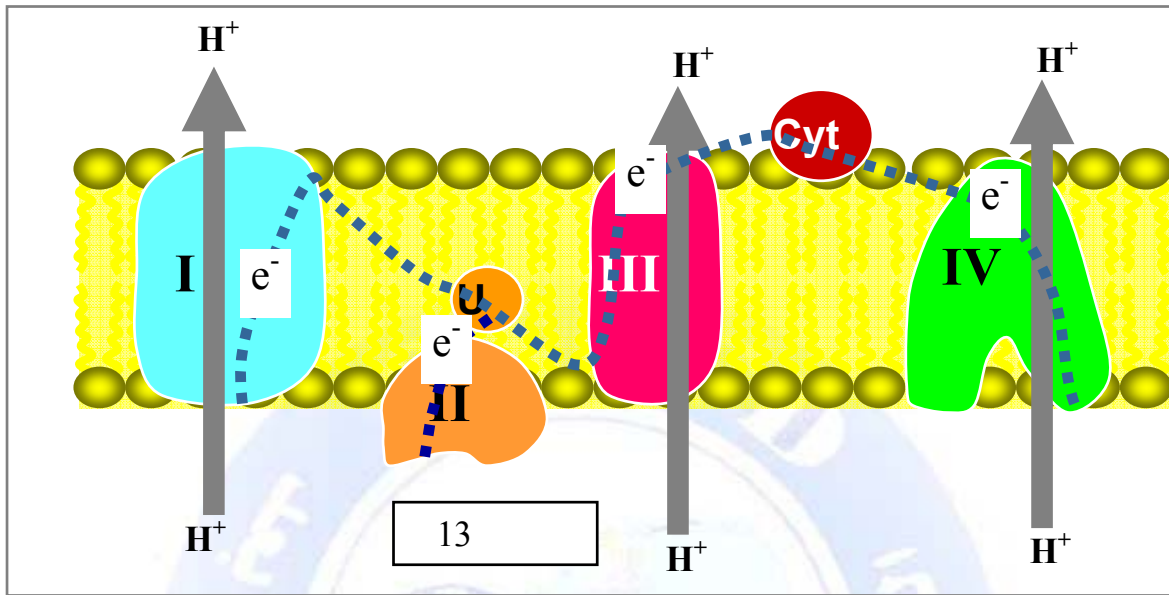
300

$H^+$

2 - الاستنتاج : إن زيادة تركيز  $H^+$

$H^+$

$O_2$



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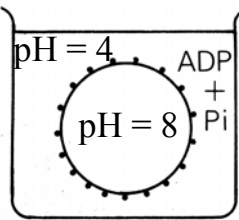
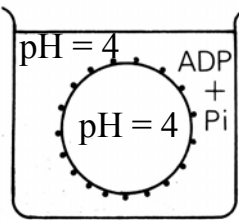
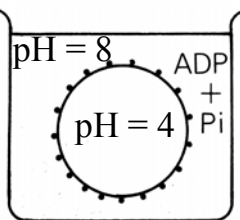


14

Pi ADP

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ATP	ATP	ATP	

15

O<sub>2</sub>

Pi ADP (R'H<sub>2</sub>)  
(16)

R' R'H <sub>2</sub> ATP	
R' R'H <sub>2</sub> ATP	
R' R'H <sub>2</sub> ATP	
ATP	H <sup>+</sup>

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ATP

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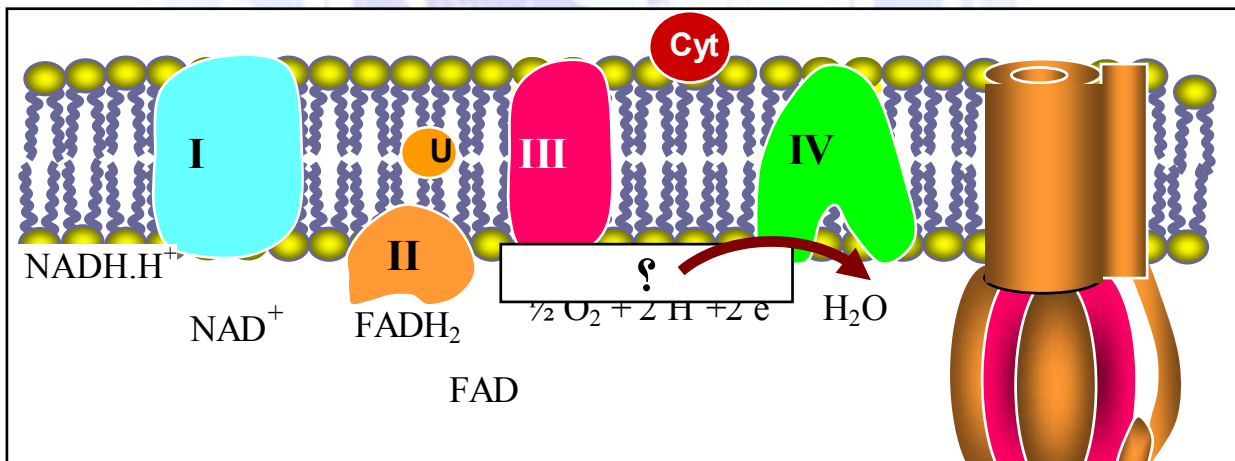
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 $O_2$  $H^+$ 

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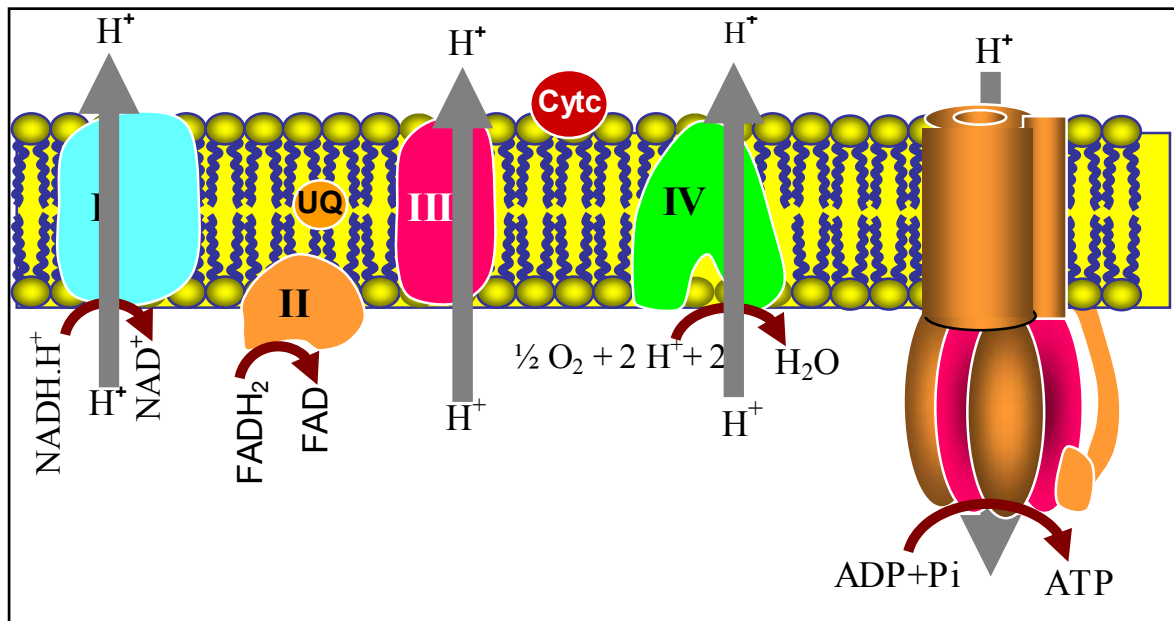
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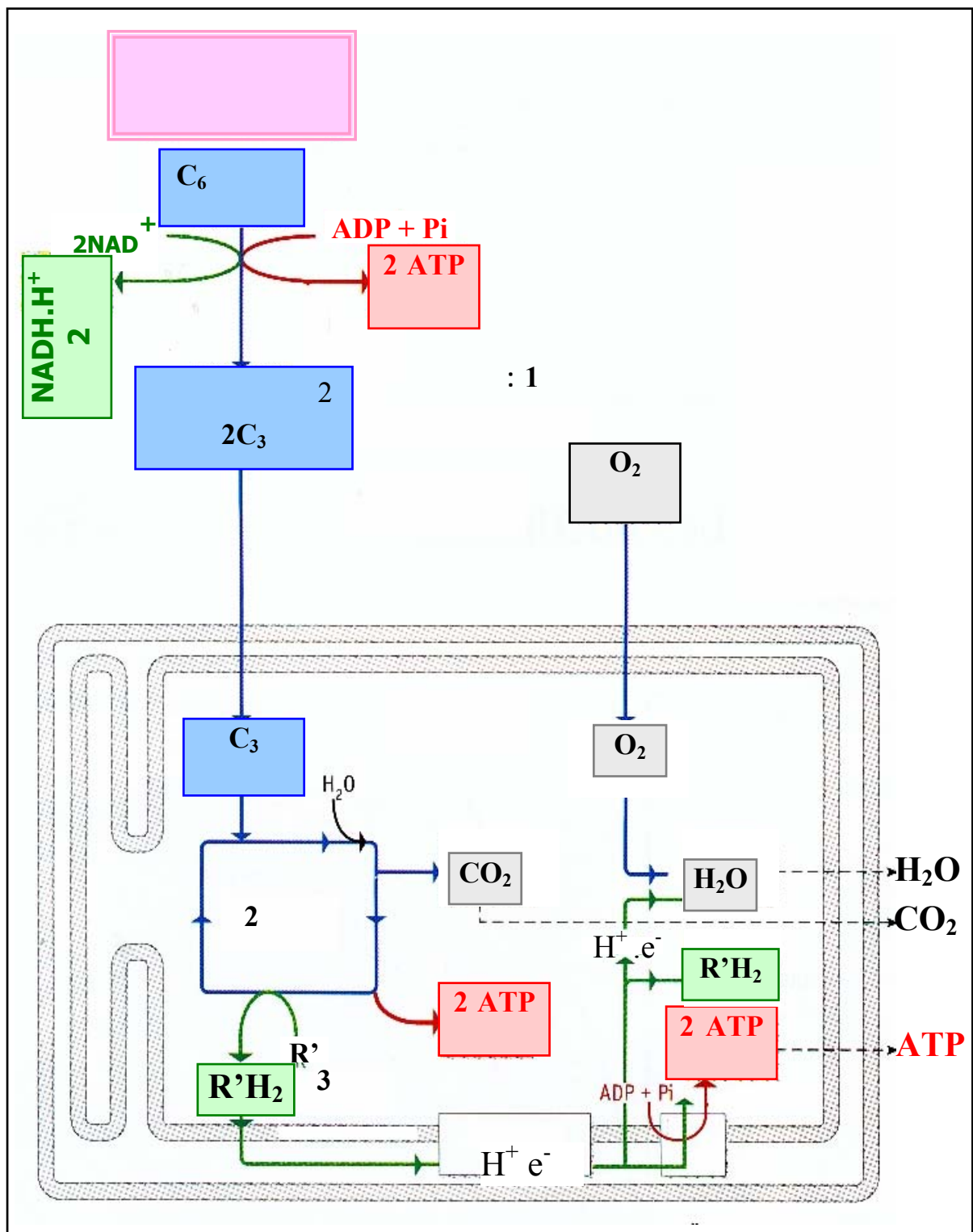
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ATP ) ATP ADP : 2

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$H^+$   $H^+$   $H_2O$   $H^+$   $e^-$   $O_2$  : 8





ATP

ATP

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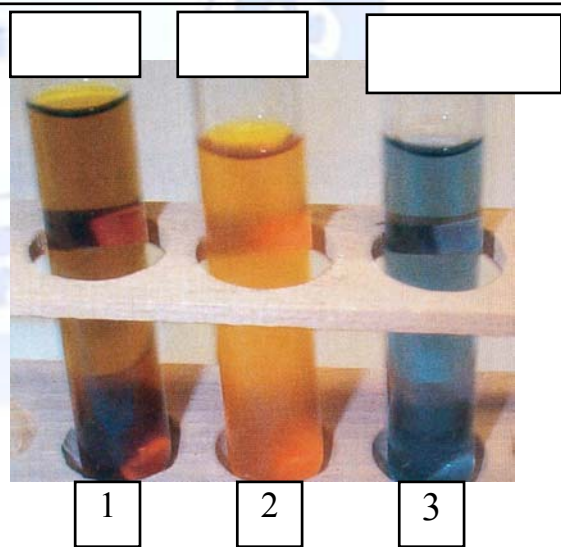
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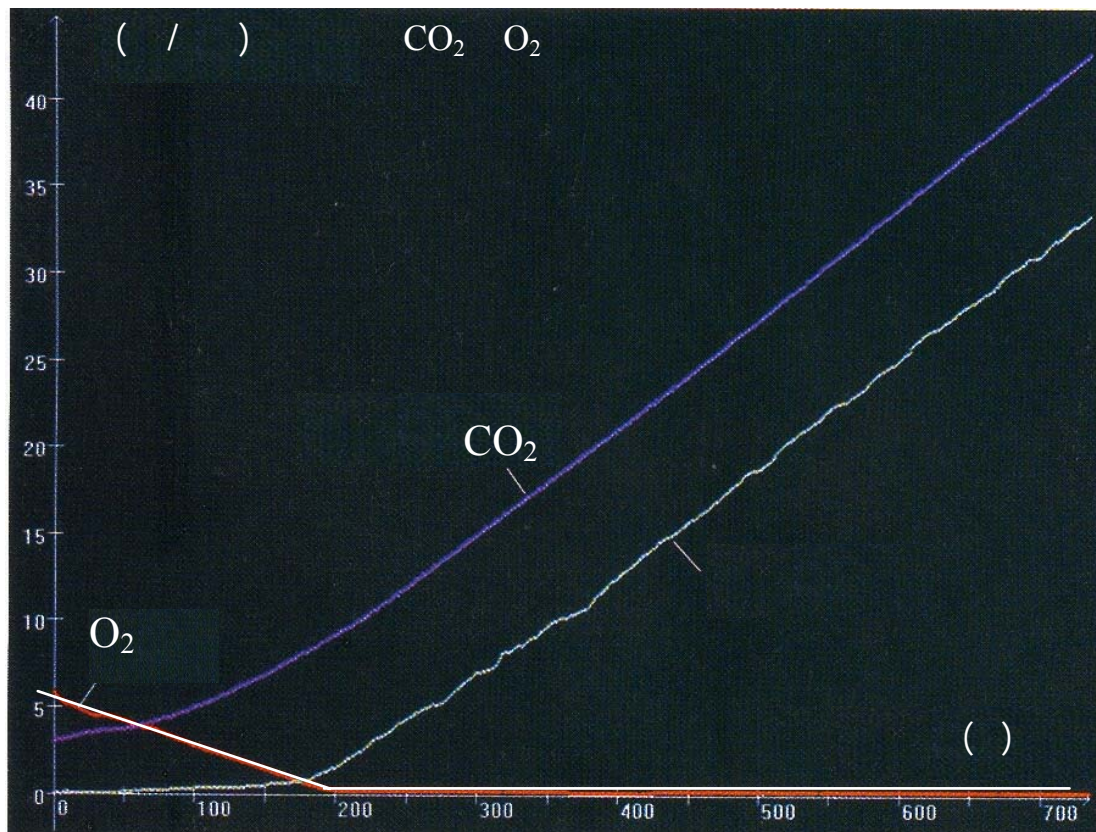
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CO<sub>2</sub> O<sub>2</sub>



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( O<sub>2</sub>

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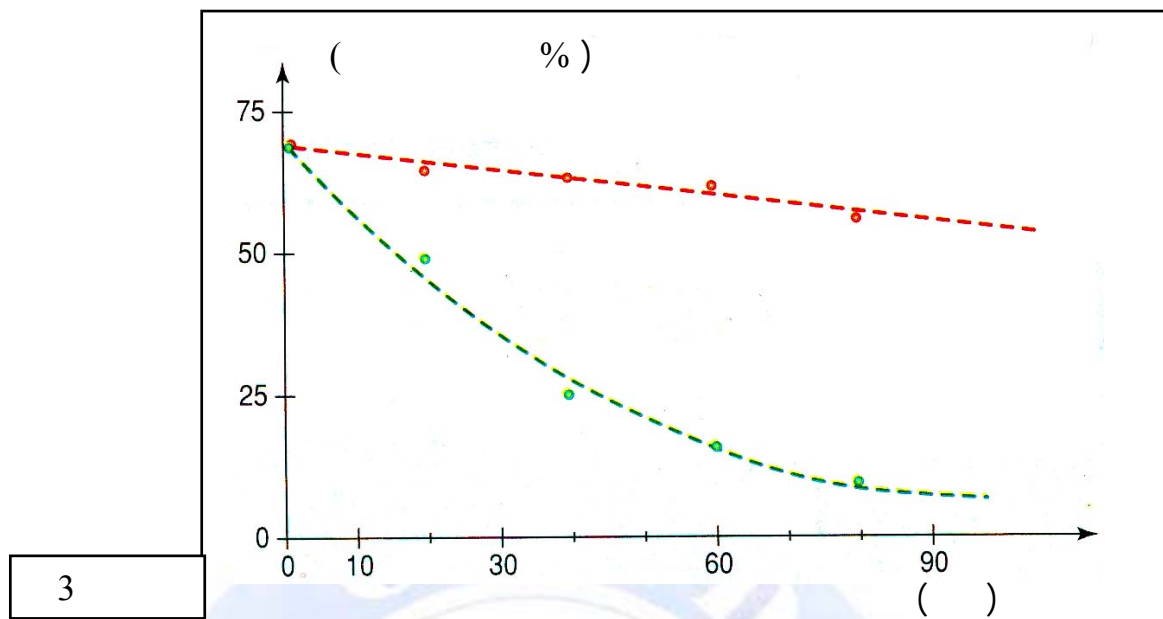
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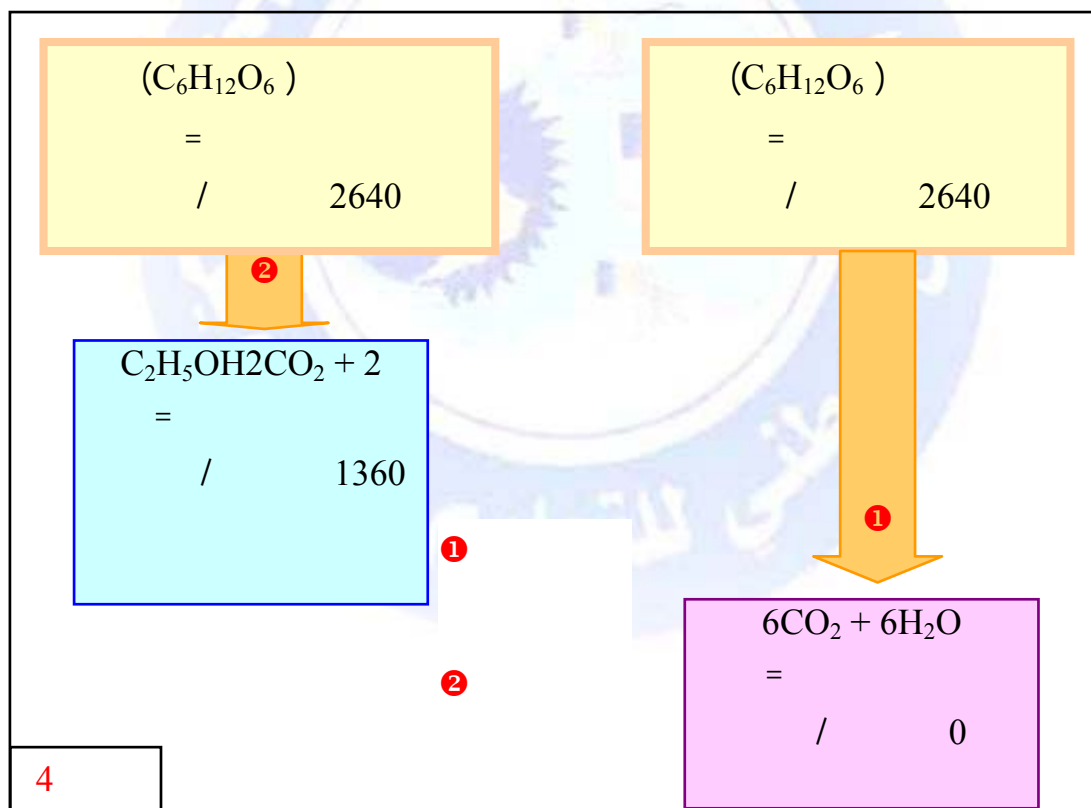
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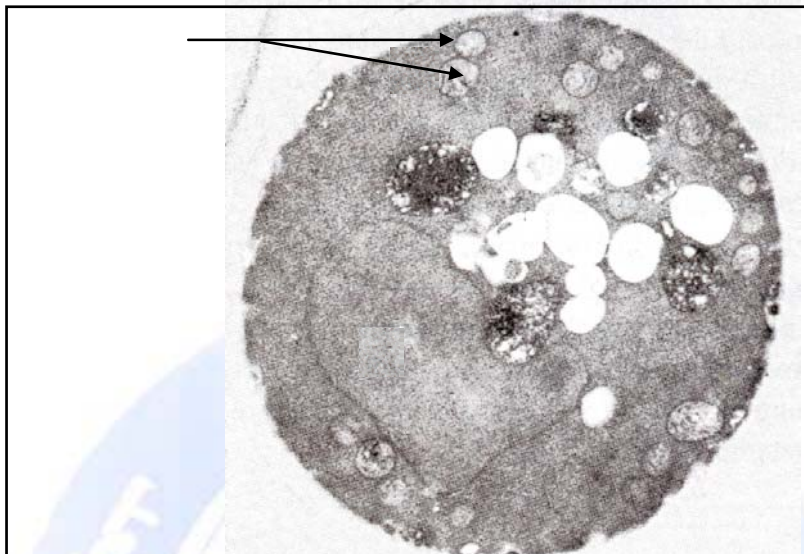
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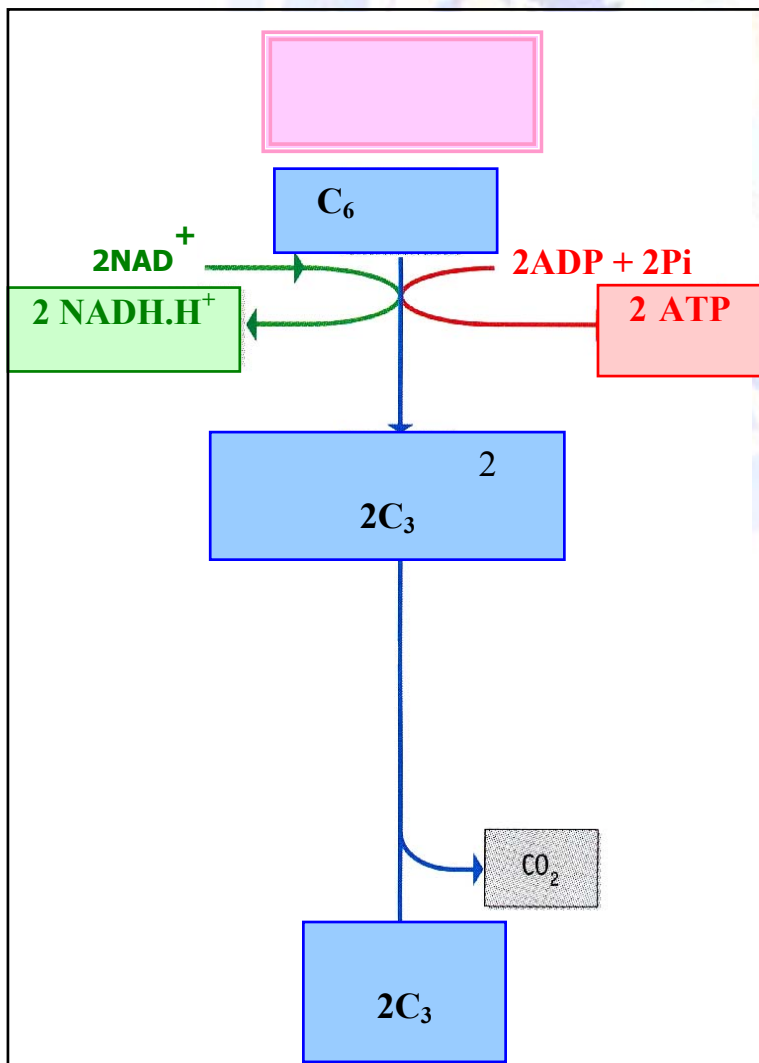
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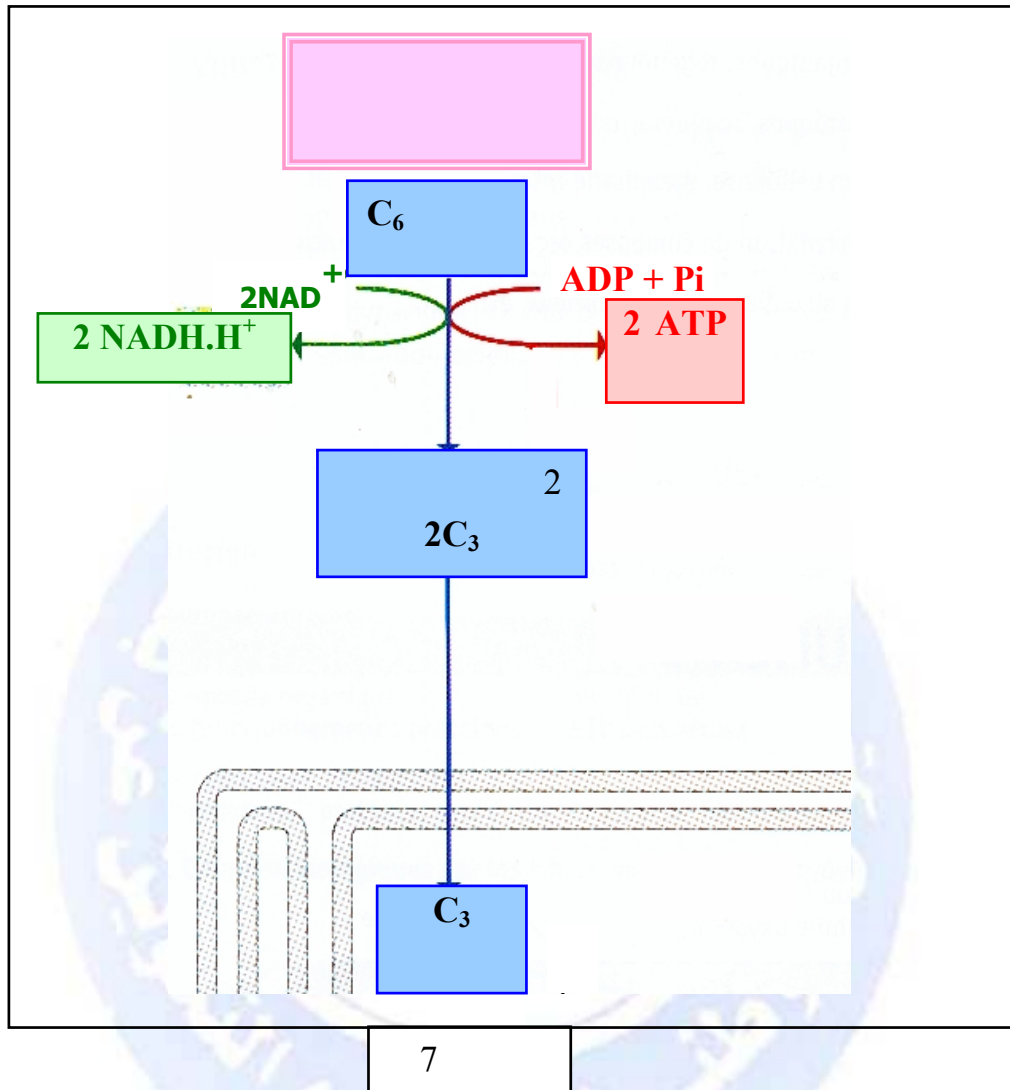


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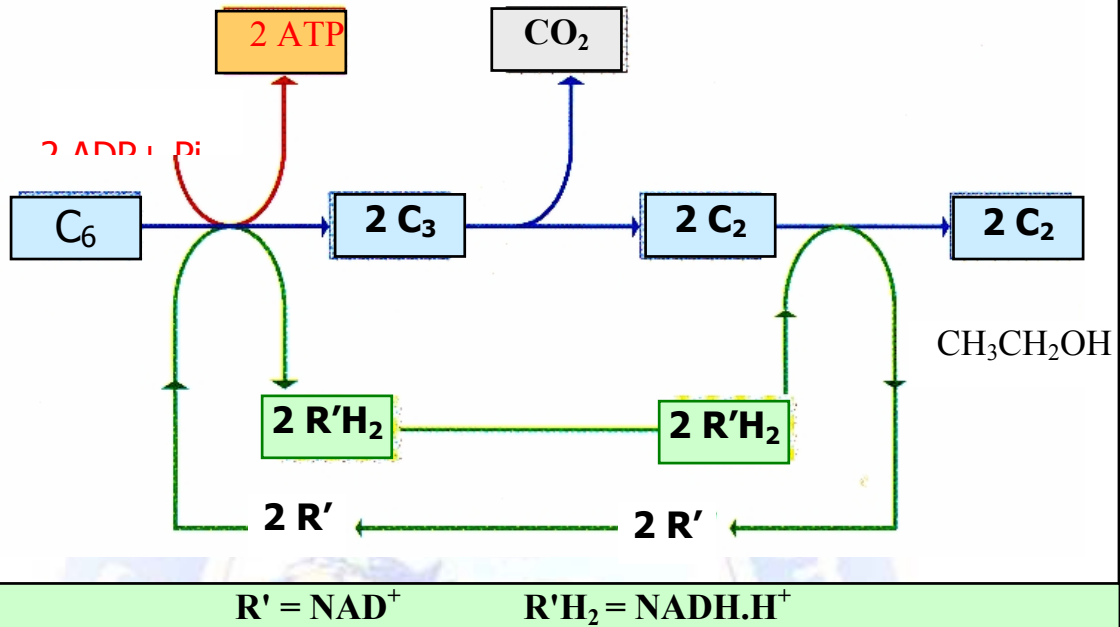


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