# Summary

December 6, 2023

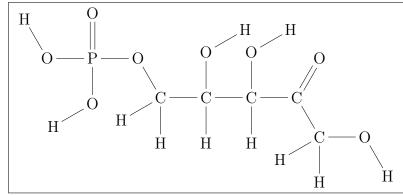
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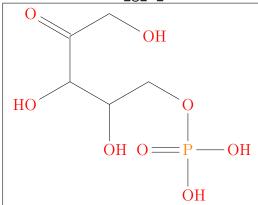
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## 0.1 Loaded Graphs

#### 0.1.1 Ribulose-5-Phosphate



File: out/002\_g\_0\_10300000

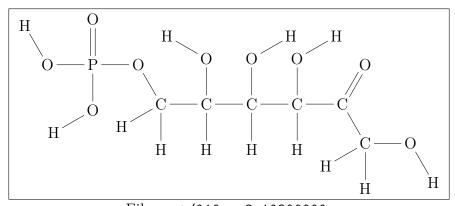


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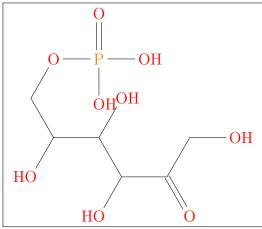
#### 0.1.2 H20

File: out/008\_g\_1\_11310100

#### 0.1.3 Fructose-6-Phosphate



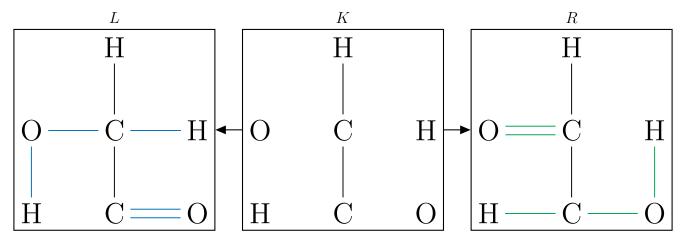
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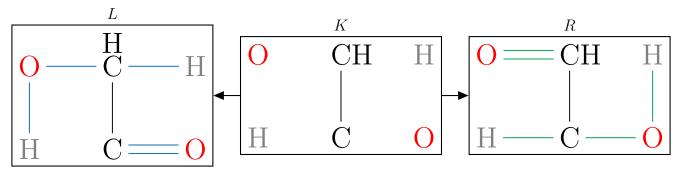
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#### 0.2 Loaded Rules

#### 0.2.1 Aldose-Ketose <-



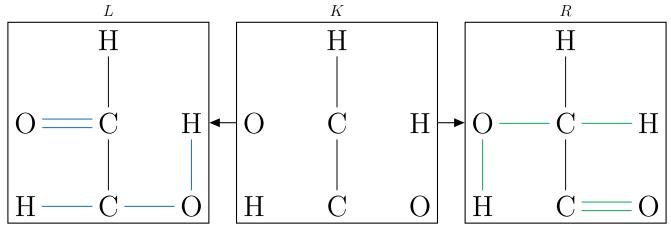
Files: out/014\_r\_0\_10300000\_{L, K, R}



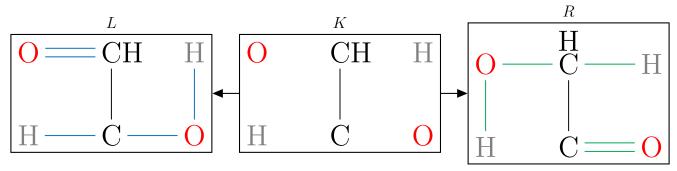
Files: out/016\_r\_0\_11300100\_{L, K, R}

```
\begin{aligned} |\{e \in \text{outEdges}(1) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`0'}\} \\ \}| = 1 \end{aligned}
```

#### 0.2.2 Aldose-Ketose ->



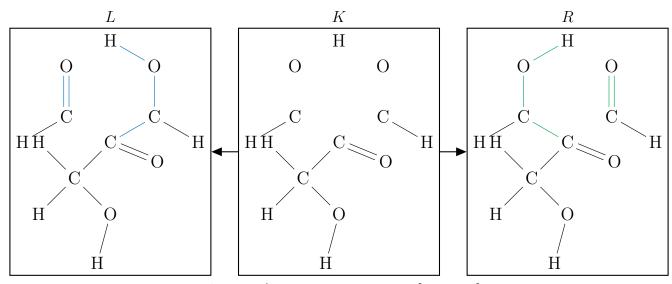
Files:  $out/019_r_1_10300000_{L, K, R}$ 



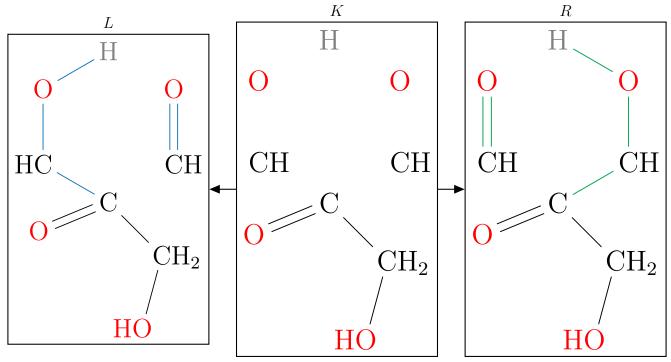
Files: out/021\_r\_1\_11300100\_{L, K, R}

$$\begin{aligned} |\{e \in \text{outEdges}(1) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`0'}\} \\ \}| = 1 \end{aligned}$$

#### 0.2.3 Transketolase

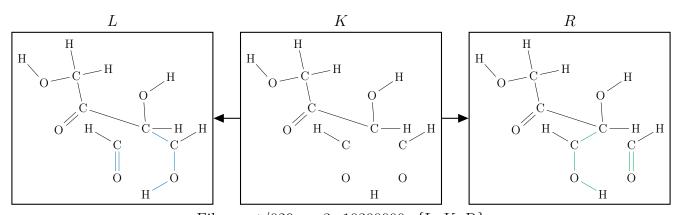


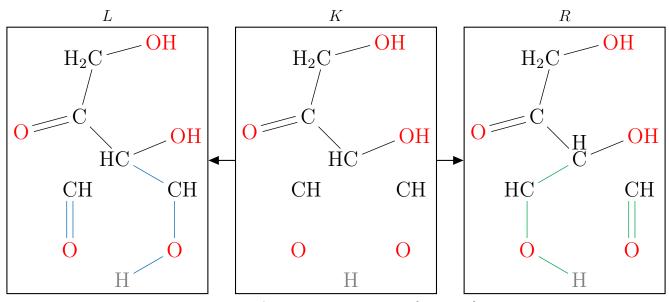
Files:  $out/024_r_2_10300000_{L, K, R}$ 



Files: out/026\_r\_2\_11300100\_{L, K, R}

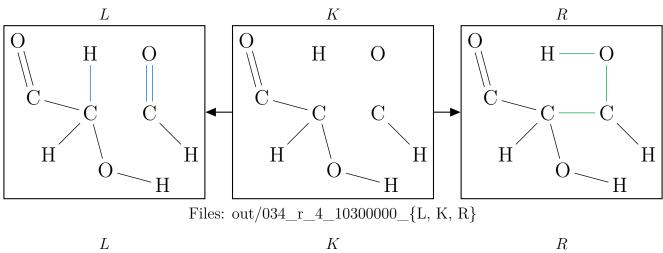
#### 0.2.4 Transaldolase

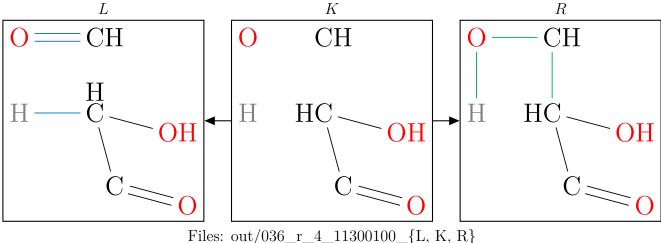




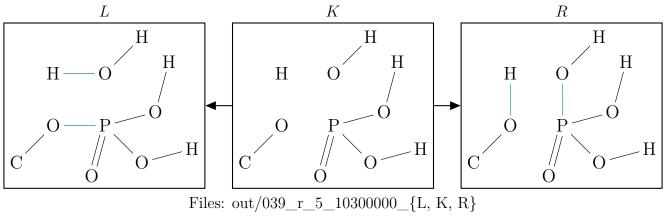
Files:  $out/031_r_3_11300100_{L, K, R}$ 

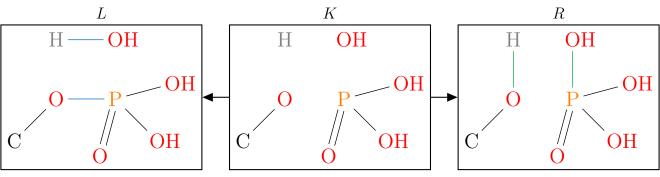
#### 0.2.5 Aldolase





#### 0.2.6 Phophohydrolase





Files: out/041\_r\_5\_11300100\_{L, K, R}

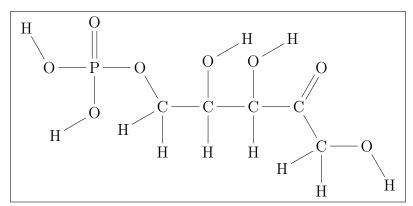
#### 0.2.7 DG Hyper, dg\_0

Figure too large, see out/043\_dg\_0\_11100\_coord.pdf

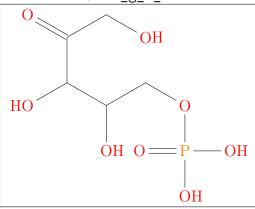
File: out/159\_dg\_0\_11100

## 0.3 Product Graphs

#### 0.3.1 Ribulose-5-Phosphate



File: out/002\_g\_0\_10300000



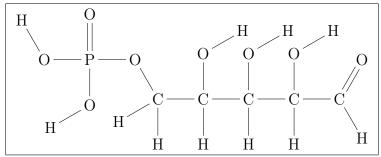
File: out/004\_g\_0\_11310100

#### 0.3.2 H20

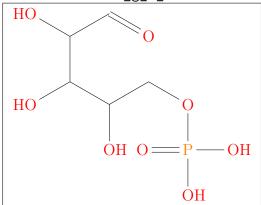
File: out/006\_g\_1\_10300000

 $File: \ {\tt out/008\_g\_1\_11310100}$ 

#### $0.3.3 p_{0.0}$

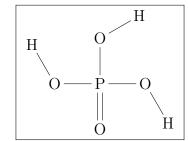


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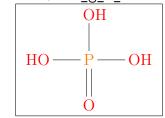


File: out/162\_g\_3\_11310100

#### $0.3.4 p_{0.1}$



File: out/164\_g\_5\_10300000



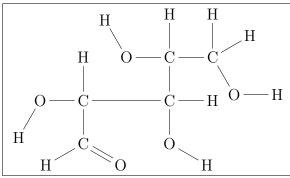
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#### $0.3.5 p_{0,2}$

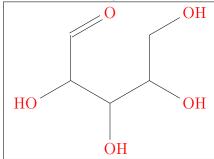
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File: out/168\_g\_6\_11310100

#### $0.3.6 p_{0,3}$

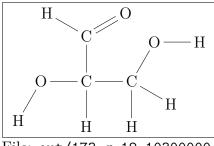


File: out/170\_g\_9\_10300000



File: out/171\_g\_9\_11310100

#### $0.3.7 p_{0,4}$



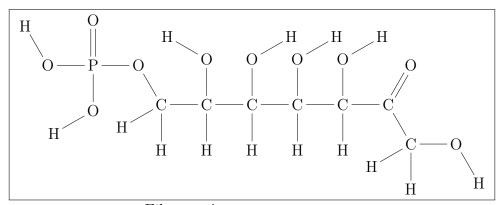
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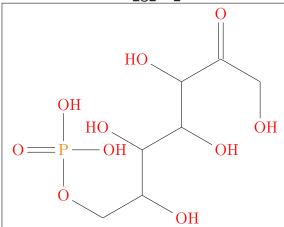
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OH

## 0.3.8 p\_{0,5}

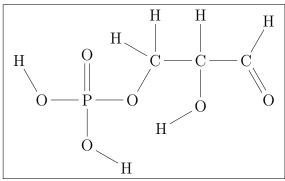


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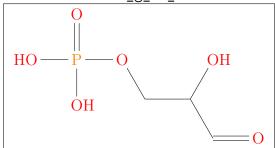


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#### p\_{0,6} 0.3.9

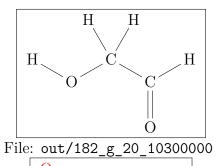


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File: out/180\_g\_17\_11310100

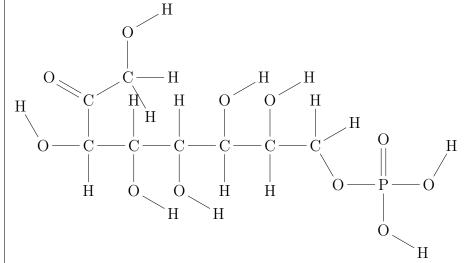
## $0.3.10 p_{0.7}$



File: out/183\_g\_20\_11310100

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#### $0.3.11 p_{0.8}$

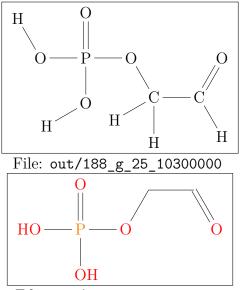


File: out/185\_g\_21\_10300000

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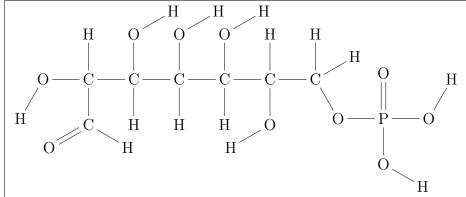
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#### 0.3.12 p\_{0,9}



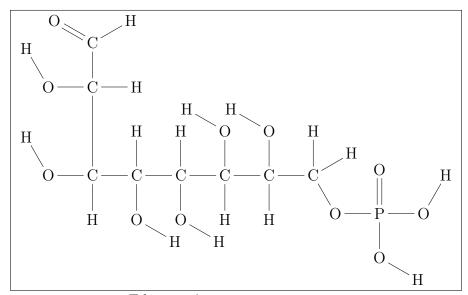
File: out/189\_g\_25\_11310100

#### $0.3.13 p_{0.10}$



File: out/192\_g\_36\_11310100

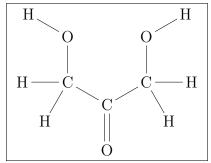
#### $0.3.14 p_{0.11}$



File: out/194\_g\_40\_10300000

File: out/195\_g\_40\_11310100

#### $0.3.15 p_{0.12}$



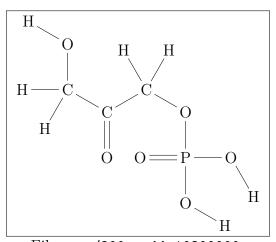
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OH

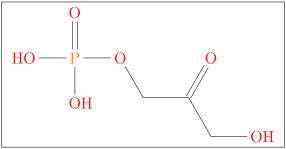
OH

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#### $0.3.16 p_{0.13}$

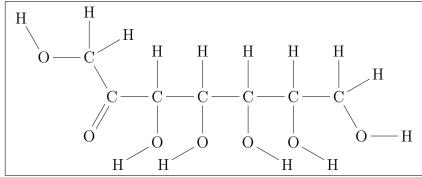


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#### 0.3.17 p\_{0,14}

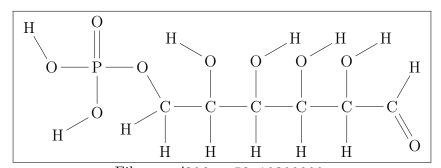


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File: out/204\_g\_47\_11310100

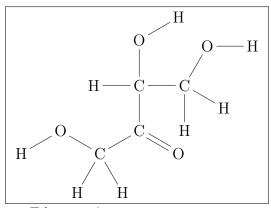
## $0.3.18 p_{0.15}$



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## $0.3.19 p_{0,16}$

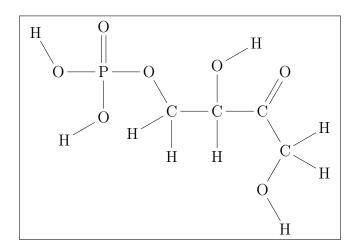


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File: out/210\_g\_81\_11310100

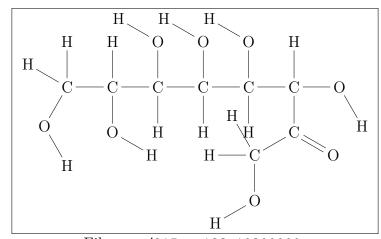
## $0.3.20 p_{0.17}$



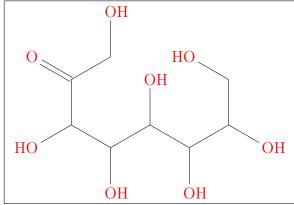
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File: out/213\_g\_83\_11310100

#### $0.3.21 p_{0.18}$

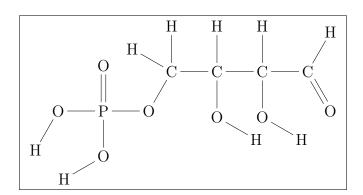


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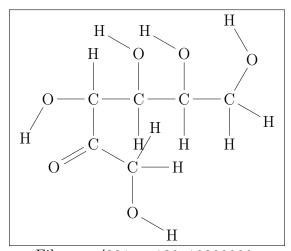
File: out/216\_g\_123\_11310100

#### $0.3.22 p_{0.19}$



File: out/219\_g\_124\_11310100

#### 0.3.23 p<sub>{0,20}</sub>

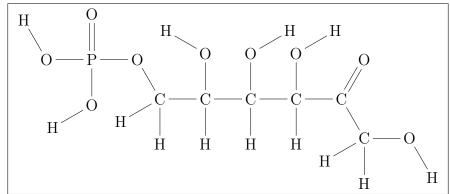


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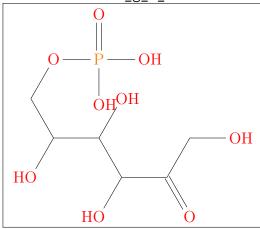
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НО

#### 0.3.24 Fructose-6-Phosphate

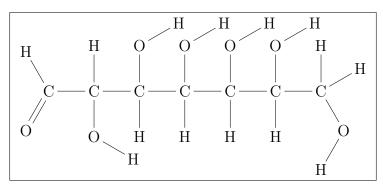


File: out/010\_g\_2\_10300000



File: out/012\_g\_2\_11310100

#### $0.3.25 p_{0.21}$

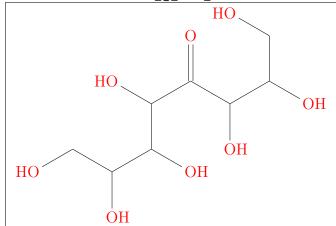


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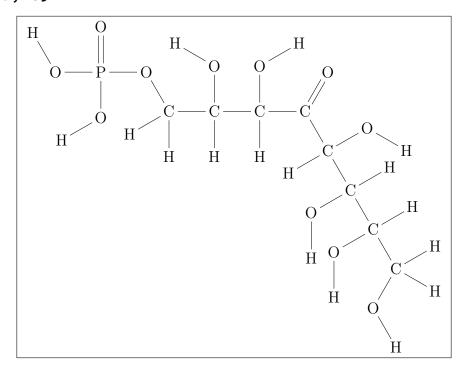
#### 0.3.26 p\_{0,22}

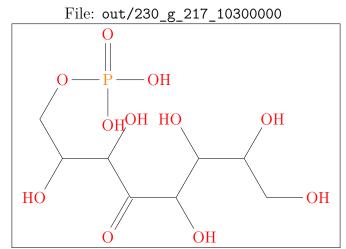
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File: out/228\_g\_215\_11310100

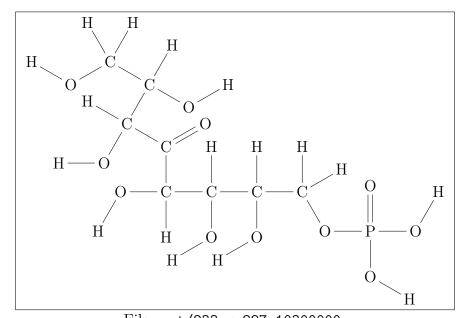
## 0.3.27 p<sub>{0,23}</sub>





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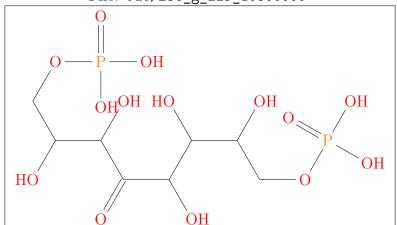
#### $0.3.28 p_{0.3.24}$



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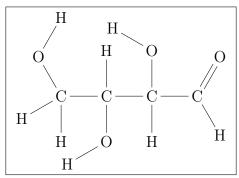
#### $0.3.29 p_{0.25}$

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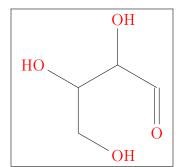


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## $0.3.30 p_{0.26}$

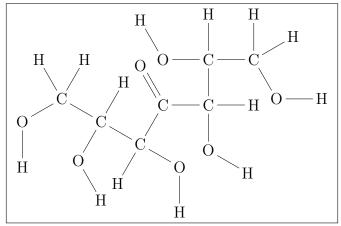


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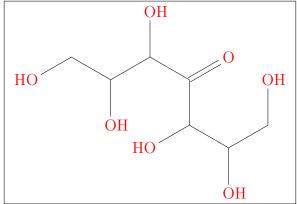


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#### $0.3.31 p_{0.27}$



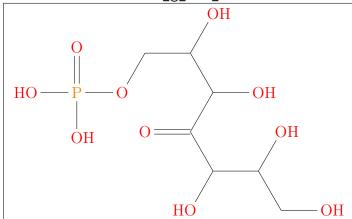
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File: out/243\_g\_235\_11310100

# 0.3.32 p\_{0,28}

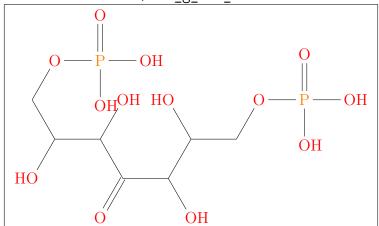
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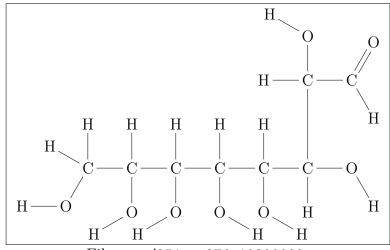
#### $0.3.33 p_{0.29}$

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File: out/249\_g\_246\_11310100

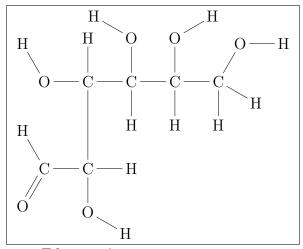
## 0.3.34 p\_{0,30}



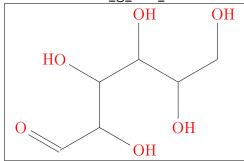
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File: out/252\_g\_276\_11310100

#### 0.3.35 p\_{0,31}

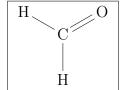


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File: out/255\_g\_278\_11310100

#### 0.3.36 p\_{0,32}

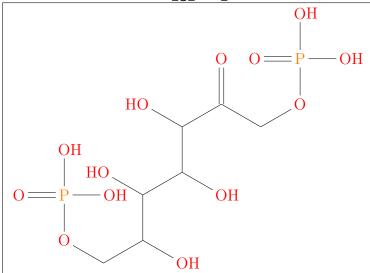


File: out/257\_g\_401\_10300000

File: out/258\_g\_401\_11310100

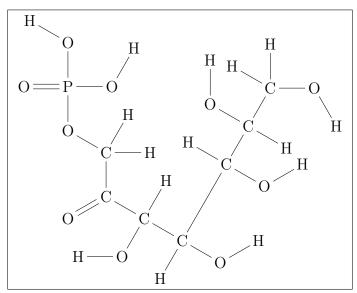
#### $0.3.37 p_{0.33}$

File: out/260\_g\_953\_10300000



File: out/261\_g\_953\_11310100

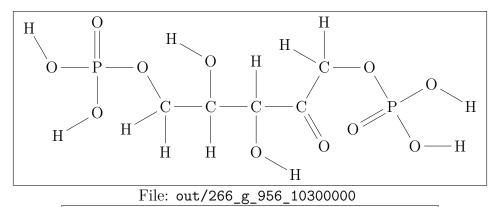
## $0.3.38 p_{0.34}$



File: out/263\_g\_955\_10300000

File: out/264\_g\_955\_11310100

## $0.3.39 p_{0,35}$



OH
OH
OH
OH
OH
OH
OH
OH

File: out/267\_g\_956\_11310100

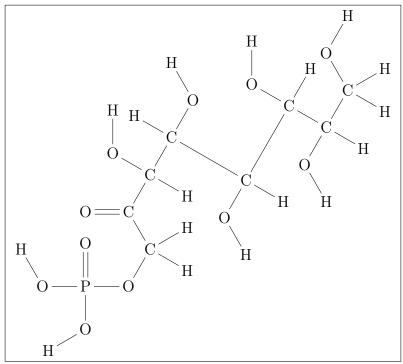
#### $0.3.40 p_{0,36}$

File: out/269\_g\_957\_10300000

OPOHOH HO
OHOOH
OHOOH
OHOOH

File: out/270\_g\_957\_11310100

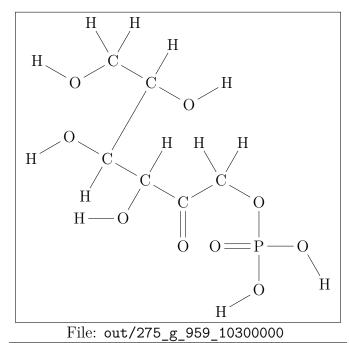
## $0.3.41 p_{0.37}$



File: out/272\_g\_958\_10300000

File: out/273\_g\_958\_11310100

#### 0.3.42 p\_{0,38}



HO OH OH OH

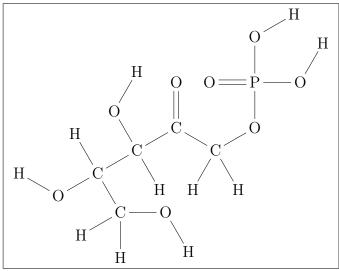
File: out/276\_g\_959\_11310100

#### $0.3.43 p_{0.39}$

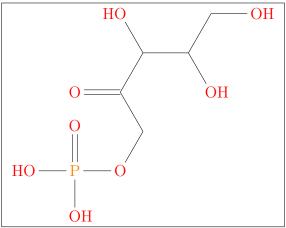
File: out/278\_g\_960\_10300000

File: out/279\_g\_960\_11310100

#### $0.3.44 p_{0.40}$

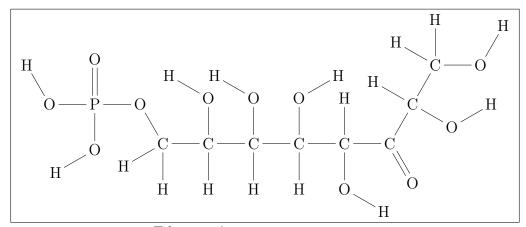


File: out/281\_g\_961\_10300000

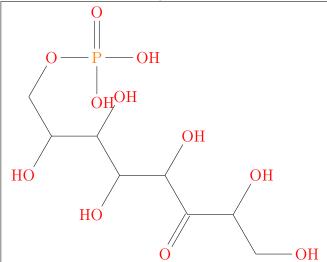


File: out/282\_g\_961\_11310100

## $0.3.45 p_{0.41}$



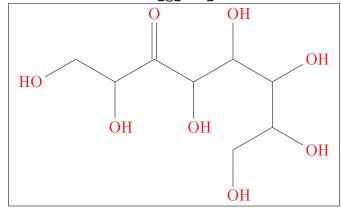
File: out/284\_g\_992\_10300000



File: out/285\_g\_992\_11310100

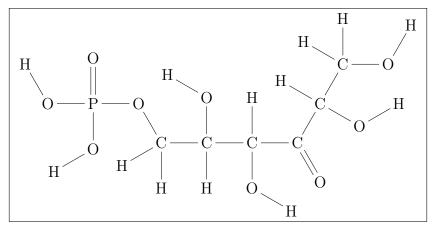
#### $0.3.46 p_{0,42}$

File: out/287\_g\_994\_10300000



File: out/288\_g\_994\_11310100

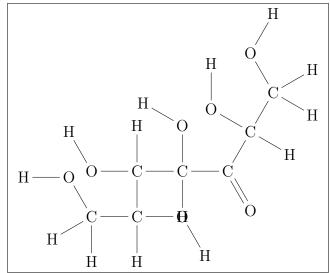
#### 0.3.47 p<sub>{0,43}</sub>



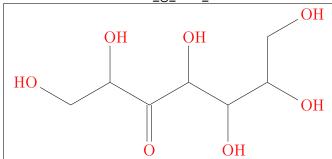
File: out/290\_g\_995\_10300000

File: out/291\_g\_995\_11310100

## $0.3.48 p_{0.44}$



File: out/293\_g\_998\_10300000



File: out/294\_g\_998\_11310100

#### $0.3.49 p_{0,45}$

File: out/296\_g\_999\_10300000

HO
OH
OH
OH
OH
OH
OH

File: out/297\_g\_999\_11310100

#### $0.3.50 p_{0,46}$

File: out/299\_g\_1000\_10300000

OH OH

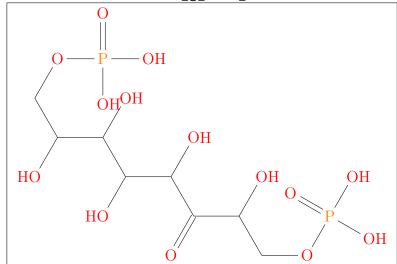
OH

OH

OH

## $0.3.51 p_{0.47}$

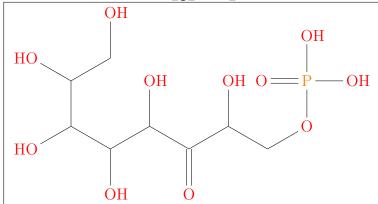
File: out/302\_g\_1001\_10300000



File: out/303\_g\_1001\_11310100

#### 0.3.52 p<sub>{0,48}</sub>

File: out/305\_g\_1003\_10300000



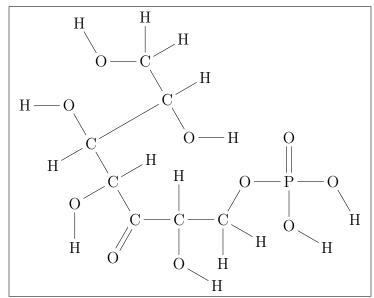
File: out/306\_g\_1003\_11310100

#### 0.3.53 p<sub>{0,49}</sub>

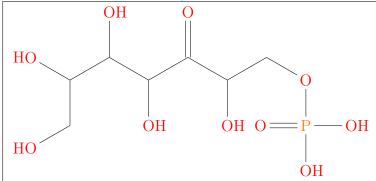
File: out/308\_g\_1004\_10300000

File: out/309\_g\_1004\_11310100

## 0.3.54 p\_{0,50}



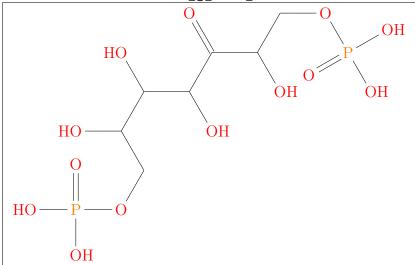
File: out/311\_g\_1007\_10300000



File: out/312\_g\_1007\_11310100

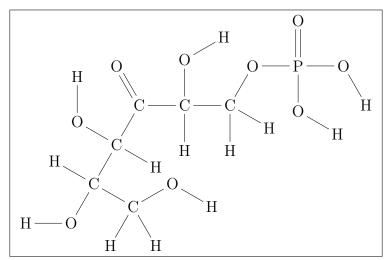
#### $0.3.55 p_{0.51}$

File: out/314\_g\_1008\_10300000



File: out/315\_g\_1008\_11310100

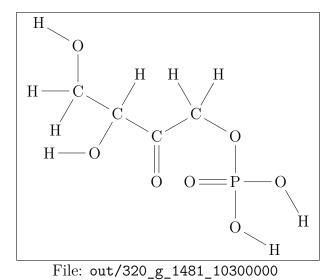
## 0.3.56 p\_{0,52}

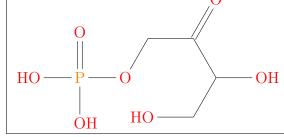


File: out/317\_g\_1009\_10300000

File: out/318\_g\_1009\_11310100

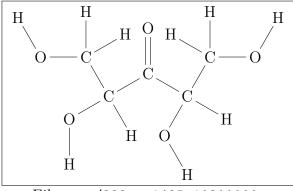
## 0.3.57 p<sub>{0,53}</sub>



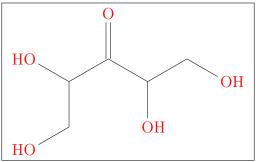


File: out/321\_g\_1481\_11310100

## 0.3.58 p<sub>{0,54}</sub>

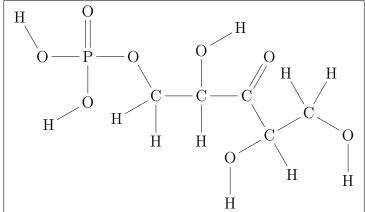


File: out/323\_g\_1485\_10300000



File: out/324\_g\_1485\_11310100

#### 0.3.59 p<sub>{0,55}</sub>



File: out/326\_g\_1487\_10300000

O
OH
OH
OH
OH
OH
OH
OH

File: out/327\_g\_1487\_11310100

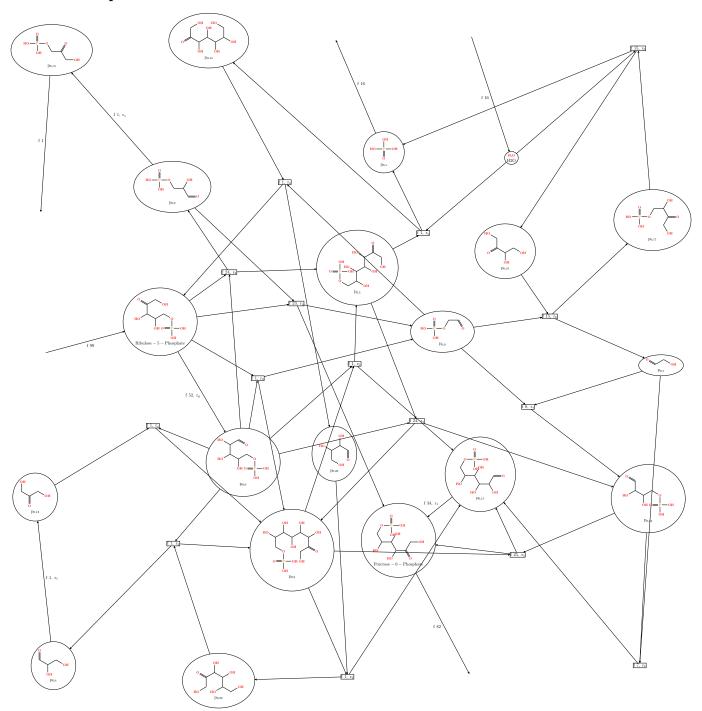
#### 0.4 Flow Solutions, id 0

#### **0.4.1** Solution 0

#### Overall Data

Objective value (integral): -82
Vertex/Graph In Out
Fructose-6-Phosphate 0 82
H2O 16 0
Ribulose-5-Phosphate 99 0
p\_{0,13} 0 1

#### Filtered Graph



 $File: \ \mathtt{out/330\_dg\_0\_11100\_f\_0\_0\_filt}$