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# Chemistry

In[\*]:=

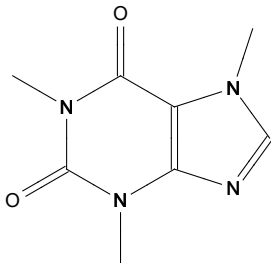
```
caffeine = caffeine CHEMICAL
```

Out[\*]=

**caffeine**

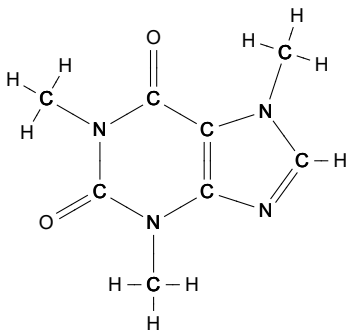
In[\*]:= **ChemicalData**[ **caffeine** CHEMICAL, "StructureDiagram"]  
化学数据

Out[\*]=



In[\*]:= **ChemicalData**[ **caffeine** CHEMICAL, "CHStructureDiagram"]  
化学数据

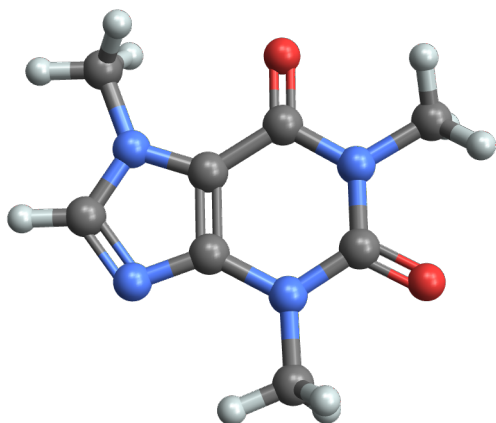
Out[\*]=



```
In[ ]:= ChemicalData[ caffeine CHEMICAL , "MoleculePlot"]
```

化学数据      二维分子图

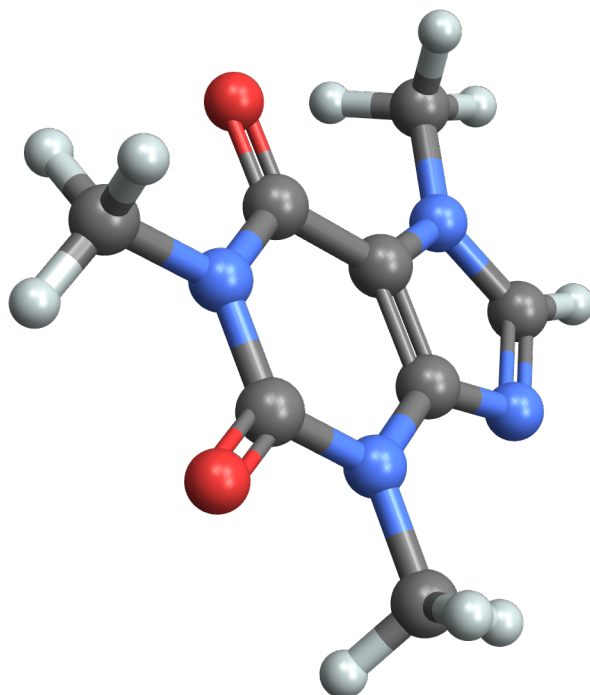
```
Out[ ]:=
```



```
In[ ]:= MoleculePlot3D[caffeine]
```

三维分子图

```
Out[ ]:=
```



```
In[ ]:= planets =  planets PLANETS
```

```
Out[ ]:=
```

 planets

```
In[ ]:= EntityList[planets]
```

实体列表

```
Out[ ]:=
```

{ **Mercury** , **Venus** , **Earth** , **Mars** , **Jupiter** , **Saturn** , **Uranus** , **Neptune** }

In[\*]:= **Jupiter** PLANET

Out[\*]=

Jupiter

In[\*]:= **Jupiter** PLANET ["Satellites"]

Out[\*]=

{ Metis , Adrastea , Amalthea , Thebe , Io , Europa , Ganymede , Callisto ,  
Themisto , Leda , S/2018 J1 , Himalia , S/2017 J4 , Lysithea , Elara , Dia ,  
S/2003 J12 , Carpo , Valetudo , Euporie , S/2003 J3 , S/2003 J18 , S/2017 J7 ,  
S/2017 J3 , S/2016 J1 , Orthosie , Euanthe , Harpalyke , Praxidike , Thyone ,  
S/2003 J16 , S/2010 J1 , S/2010 J2 , Iocaste , Mneme , Hermippe , Thelxinoe ,  
Helike , Ananke , S/2017 J9 , S/2017 J6 , S/2003 J15 , Eurydome , Arche ,  
Herse , Pasithee , S/2003 J10 , Chaldene , S/2011 J2 , Isonoe , S/2017 J5 ,  
S/2017 J8 , Erinome , Kale , Aitne , S/2017 J2 , Taygete , S/2003 J9 ,  
Carme , S/2011 J1 , Sponde , Megaclite , S/2003 J5 , S/2003 J19 , S/2017 J1 ,  
S/2003 J23 , Kalyke , Kore , Pasiphae , Eukelade , S/2003 J4 , Sinope ,  
Hegemone , Aoede , Kallichore , Autonoe , Callirrhoe , Cyllene , S/2003 J2 }

In[\*]:= PlanetData[ **Jupiter** PLANET , "AtmosphericComposition"]  
行星数据

Out[\*]=

{ hydrogen → (85.1 to 87.5) vol% , helium → (14. to 16.3) vol% ,  
methane → (0.233 to 0.247) vol% , ammonia → (0 to 0.12) vol% ,  
water → (0.0033 to 0.0099) vol% , hydrogen sulfide → ( $5 \times 10^{-4}$  to 0.015) vol% ,  
neon → (0.00203 to 0.00257) vol% , deuterium hydride → 0.0011 vol% ,  
argon → (0.0002 to 0.0015) vol% , phosphine → (0 to 0.0010) vol% ,  
ethane → (0 to 0.0005) vol% , ethylene → (0 to 0.00002) vol% ,  
methane-d 1 →  $2. \times 10^{-6}$  vol% , acetylene → ( $0$  to  $3.02 \times 10^{-6}$ ) vol% ,  
krypton → ( $4.2 \times 10^{-7}$  to  $1.3 \times 10^{-6}$ ) vol% , xenon → ( $2.3 \times 10^{-7}$  to  $8.1 \times 10^{-7}$ ) vol% ,  
germane →  $6. \times 10^{-8}$  vol% , methylamine → ( $0$  to  $1.6 \times 10^{-7}$ ) vol% ,  
hydrogen cyanide → ( $0$  to  $1.6 \times 10^{-7}$ ) vol% , carbon monoxide →  $1. \times 10^{-8}$  vol% }

In[ ]:=

```
song = Import["E:\\KuGou\\kanon - 雪之少女.mp3"]
```

导入 自然常数

Out[ ]:=

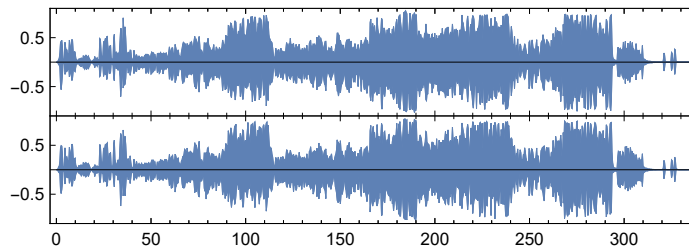


In[ ]:=

```
AudioPlot[song]
```

绘制音频波形

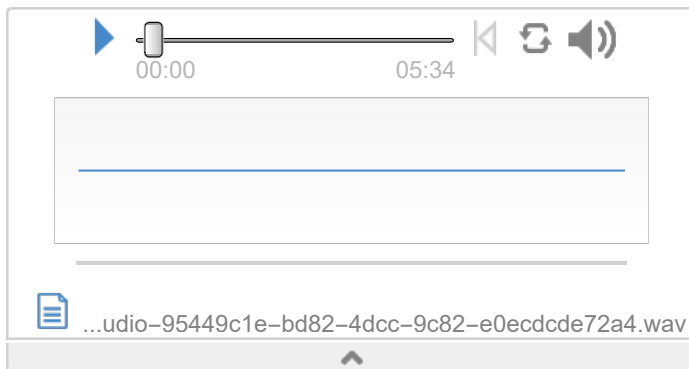
Out[ ]:=



```
AudioSpectralMap[#Value^1 &, song]
```

音频频谱

Out[ ]:=



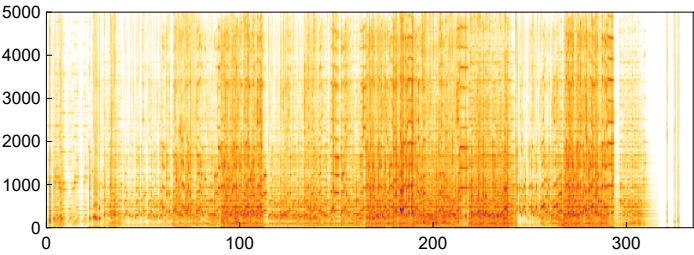
```
AudioSpectralTransformation
```

音频频谱变换

In[ \* ]:= **Spectrogram[song]**

频谱

Out[ \* ]:=



In[ \* ]:=

**? Video\***

Out[ \* ]:=

▼ System`

<a href="#">Video</a>	<a href="#">VideoFrameMap</a>	<a href="#">VideoMapTimeSeries</a>	<a href="#">VideoStream</a>
<a href="#">VideoCombine</a>	<a href="#">VideoGenerator</a>	<a href="#">VideoPause</a>	<a href="#">VideoStreams</a>
<a href="#">VideoDelete</a>	<a href="#">VideoIntervals</a>	<a href="#">VideoPlay</a>	<a href="#">VideoTrackSelection</a>
<a href="#">VideoEncoding</a>	<a href="#">VideoJoin</a>	<a href="#">VideoQ</a>	<a href="#">VideoTranscode</a>
<a href="#">VideoExtractFrames</a>	<a href="#">VideoMap</a>	<a href="#">VideoSplit</a>	<a href="#">VideoTrim</a>
<a href="#">VideoFrameList</a>	<a href="#">VideoMapList</a>	<a href="#">VideoStop</a>	