

The Buzz About Bugs

Chemists Celebrate Earth Week

THE BUZZ **#ccew**
ABOUT BUGS:
insect chemistry
April 17-23 • 2022

**CHEMISTS
CELEBRATE
EARTH WEEK**

ACS
Chemistry for Life®

O=C(O)C1CN(C2=CN=CC=C2S2)N1

THE BUZZ ABOUT BUGS:



insect chemistry

#ccew



Taking the Sting Out of Insect Bites

- That sting comes from formic acid
- To neutralize an acid, use a base
- Baking Soda
- Milk of Magnesia

THE BUZZ ABOUT BUGS:

 insect chemistry  #ccew

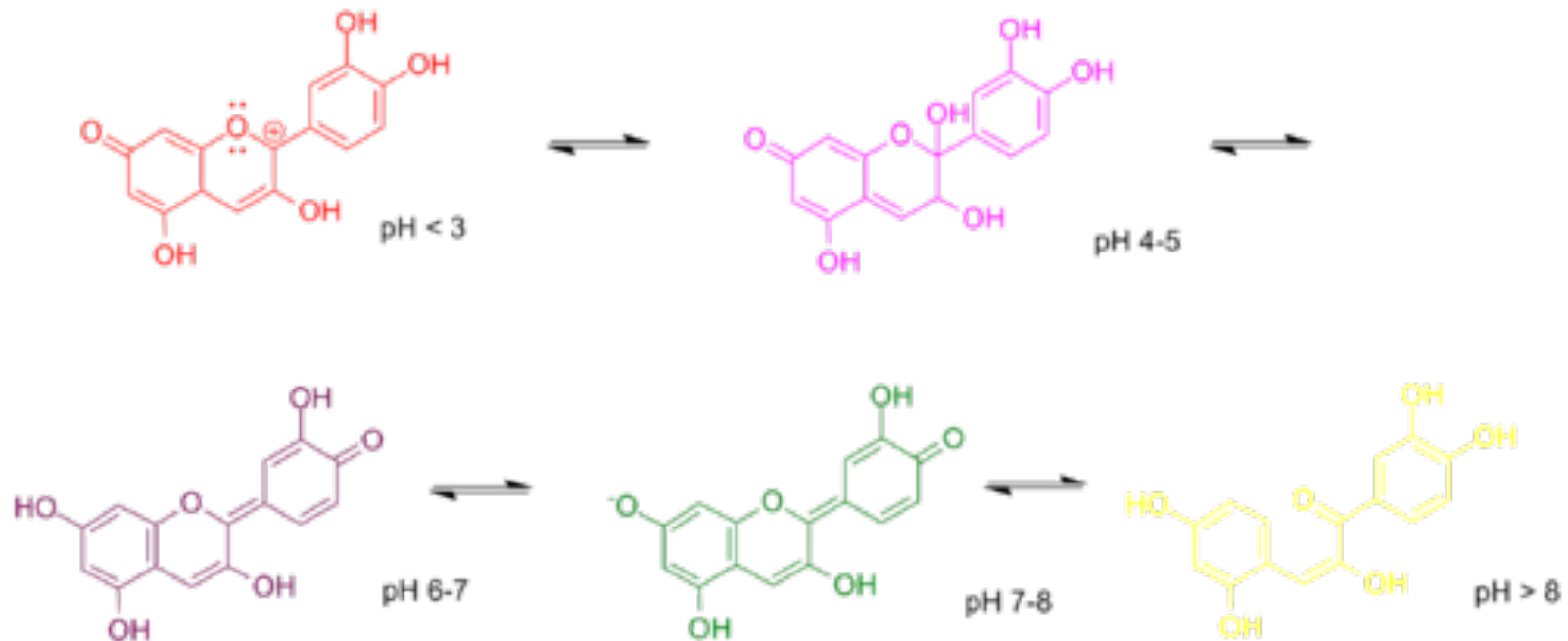


Demonstration: Acid-Base Indicator

- Natural compounds that change color
- Useful for detecting acids and bases
- Red Cabbage
- Purple Mizuna



The Anthocyanin chemical rainbow





The Anthocyanin chemical rainbow



Red Cabbage pH Color Chart:
http://images.flatworldknowledge.com/averillfwk/averillfwk-fig16_013.jpg

The Buzz About Bugs

Chemists Celebrate Earth Week

THE BUZZ **#ccew**
ABOUT BUGS:
insect chemistry
April 17-23 • 2022

**CHEMISTS
CELEBRATE
EARTH WEEK**

ACS
Chemistry for Life®

O=C(O)C1CN(C2=CN=CC=C2S1)C3=CC=CC=C3

THE BUZZ ABOUT BUGS:

insect chemistry #ccew



Bioluminescence – Cool Light

- Deep sea creatures
- Algae
- Fireflies

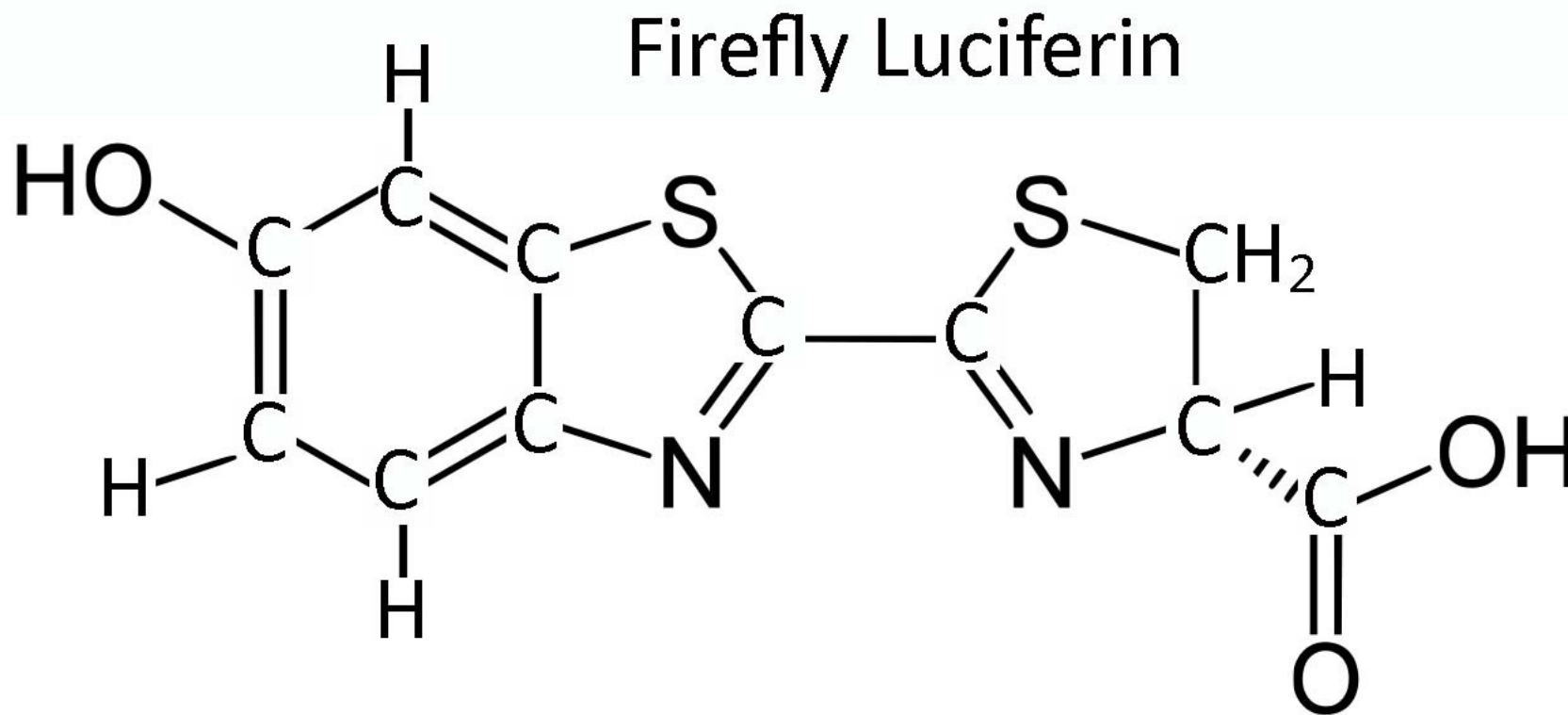


THE BUZZ ABOUT BUGS:

insect chemistry #ccew



Firefly Luciferin $C_{11}H_8N_2O_3S_2$

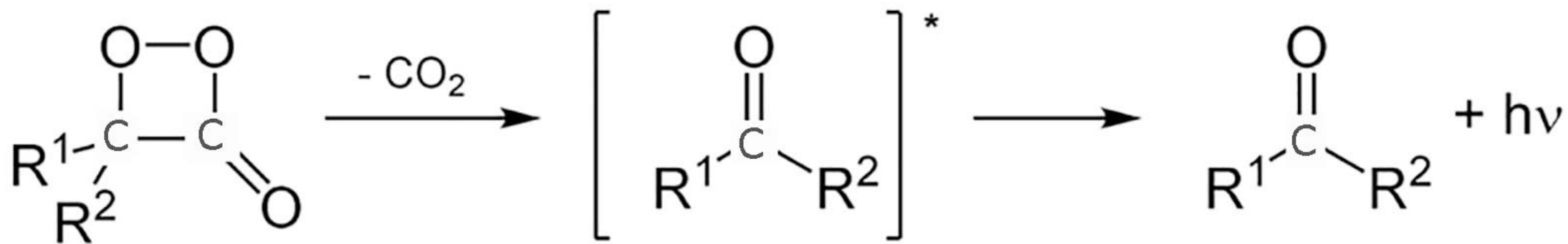


THE BUZZ ABOUT BUGS:

insect chemistry #ccew



Bioluminescence from Dioxetane



THE BUZZ ABOUT BUGS:

insect chemistry #ccew



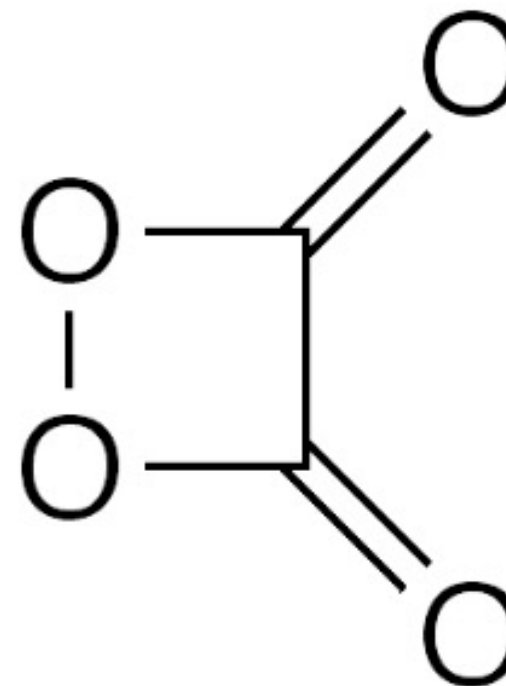
Chemiluminescence: <https://acs.org>

MOLECULE OF THE WEEK

I'm the key to brightening your day—
or night.

What molecule am I?

[View Archive](#)



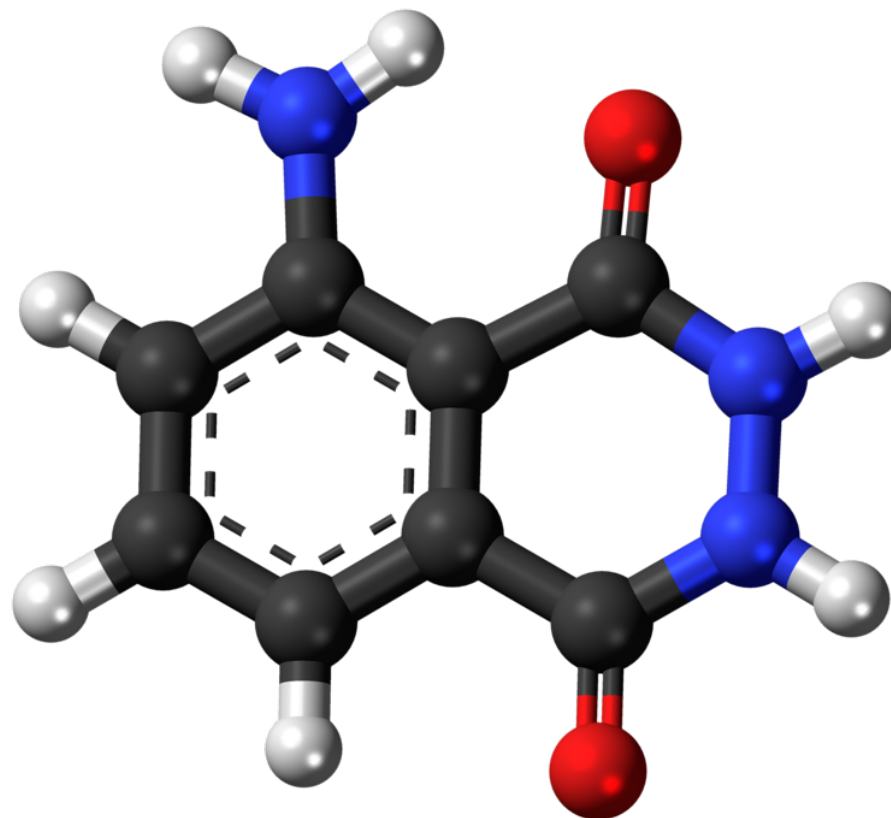
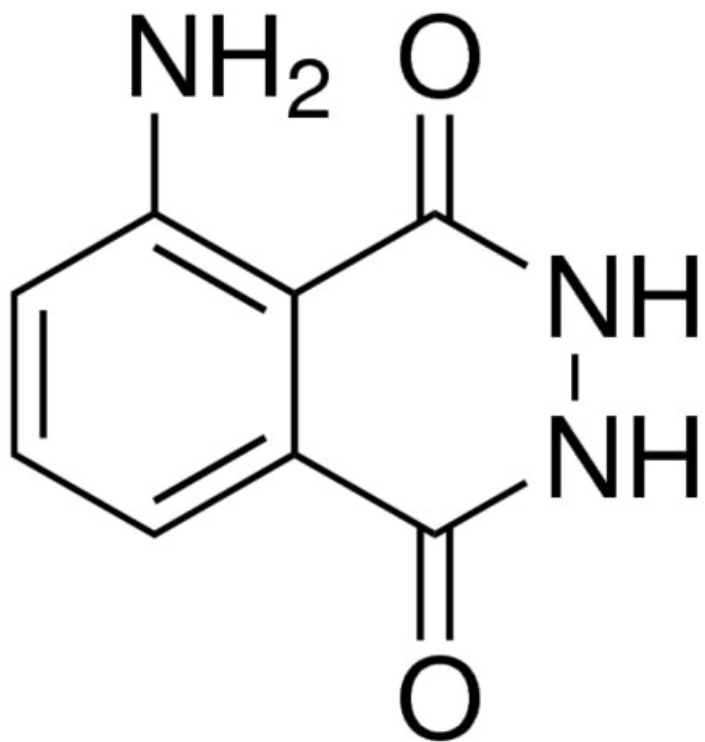
THE BUZZ ABOUT BUGS:

insect chemistry #ccew

CHEMISTS
CELEBRATE
EARTH WEEK

ACS
Chemistry for Life™

Chemiluminescence: Luminol



THE BUZZ ABOUT BUGS:

insect chemistry #ccew



Chemiluminescence: Luminol

