

DYEING AND PAINTING WITH NATURE: THE CHEMISTRY OF COCHINEAL MAKING OF LAKE PIGMENT

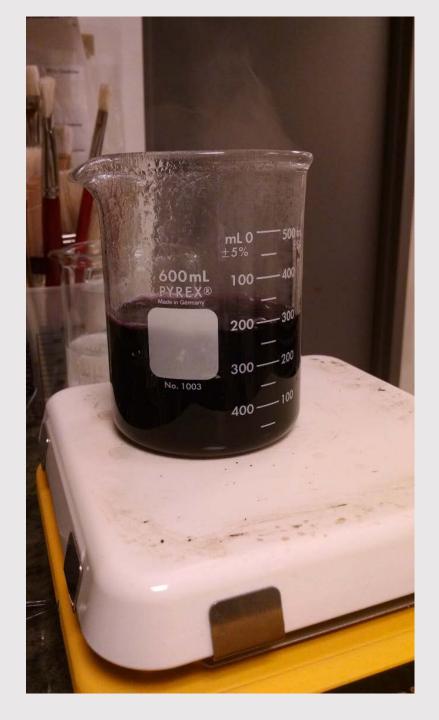
April 13-14, 2018 Genspace, New York Naomi Rosenkranz

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Cochineal (ground)





Add potash or alum (depending on recipe) Boil with water

With potash and potash alum







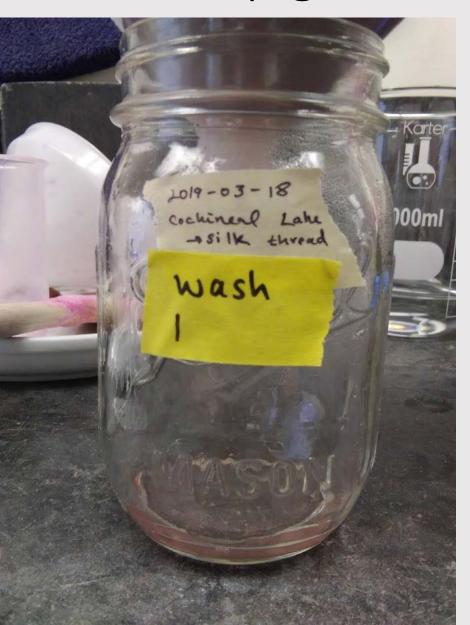
Cochineal solution, settled

Filtering





Wash the pigment with water





Leave to dry



BASE **Examples** Liquid drain cleaner (pH=14)Bleaches, oven cleaner, lye (pH=13.5)Ammonia solution (pH=10.5-11.5)Baking soda (pH=9.5)Sea water (8=Hq) Blood — Neutral (pH=7.4)Milk, urine, saliva (pH=6.3-6.6)Black coffee (pH=5)Grapefruit juice, soda, tomato juice (pH=2.5-3.5)Lemon juice, vinegar (pH=2)Battery acid, hydrochloric acid (pH=0)**ACID**

Overview of pH

pH is a numerical scale from 0 to 14 that describes the relative acidity or alkalinity of a solution

ACID

Donates a hydron (proton or hydrogen ion H⁺)

BASE/ALKALI

Releases hydroxide (OH⁻) ions.

Many times the terms "base" and "alkali" (or basic and alkaline) are used interchangeably.

More precisely, an alkali is a base that can be dissolved in water.

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