

Stain	Used for	Recipe
✓ p-Anisaldehyde (JACS, 95 (1973) 2307)	↔ <i>General purpose stain</i> (good for nucleophiles)	<ul style="list-style-type: none"> • 2 ml of acetic acid • 5 ml of <i>p</i>-anisaldehyde • 7 ml of conc. sulfuric acid • 185 ml 95% ethanol <p style="text-align: center;"><i>Add dropwise the acid at the end over an hour. Store unused solution at 0°C</i></p>
✓ Bromocresol Green	↔ <i>Acidic groups (pKa < 5)</i> ↔ <i>Carboxylic Acids</i>	<ul style="list-style-type: none"> • 0.04 g of bromocresol green • 100 ml of absolute ethanol • 0.1 M solution of sodium hydroxide <p style="text-align: center;"><i>Add the base slowly at the end until the solution turns pale blue.</i></p>
✓ Cerium Molybdate (CAM)	↔ <i>General purpose stain</i>	<ul style="list-style-type: none"> • 2 g of ammonium cerium sulfate • 5g of ammonium heptamolybdate • 12 ml of conc. sulfuric acid • 188 ml of water <p style="text-align: center;"><i>Dissolve all the components in the acid first and add water only at the end.</i></p>
✓ Cerium Sulfate	↔ <i>General purpose stain</i> (good for alkaloids)	<ul style="list-style-type: none"> • 15 % aqueous sulphuric acid saturated with ceric sulfate
✓ Chromic Acid	↔ <i>Difficulty stainable compounds</i>	<ul style="list-style-type: none"> • 2.5 g of potassium chromate • 100 ml of 20% sulfuric acid
✓ Dimethylaminobenzaldehyde	↔ <i>Amines</i>	<ul style="list-style-type: none"> • 0.5 g of dimethylaminobenzaldehyde • 10 ml of conc. sulfuric acid • 90 ml of 95% ethanol
✓ 2,4-Dinitrophenylhydrazine	↔ <i>Aldehydes</i> ↔ <i>Ketones</i>	<ul style="list-style-type: none"> • 12 g of 2,4-dinitrophenylhydrazine • 60 ml of conc. sulfuric acid • 80 ml of water • 200 ml of 95% ethanol
✓ Dragendorff Reagent	↔ <i>Amines</i> ↔ <i>Organics Bases</i>	<p>Solution A :</p> <ul style="list-style-type: none"> • 1.7 g of bismuth subnitrate • 80 ml of water • 20 ml of acetic acid <p>Solution B :</p> <ul style="list-style-type: none"> • 40 g of potassium iodide • 100 ml of water <p style="text-align: center;"><i>Mix 5 ml of both Solution A and B to a solution of 20 ml of acetic acid and 70 ml of water.</i></p>
✓ Iodine	↔ <i>General purpose stain</i>	<ul style="list-style-type: none"> • Iodine crystals in an amber bottle
✓ Ninhydrin	↔ <i>Amino Acids</i>	<ul style="list-style-type: none"> • 0.3 g of ninhydrin • 3 ml conc. sulfuric acid • 100 ml of <i>n</i>-butanol
✓ Phosphomolybdic Acid (PMA)	↔ <i>General purpose stain</i>	<ul style="list-style-type: none"> • 10 % of PMA solution in ethanol
✓ Potassium Permanganate	↔ <i>Olefins</i> ↔ <i>Readily oxidized groups</i>	<ul style="list-style-type: none"> • 1.5 g of potassium permanganate • 10 g of potassium carbonate • 1.25 ml of 10% sodium hydroxyde • 200 ml of water