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Which colour do you want for your cells, pink or blue? -Improving the synthesis of cyanine dyes

Peihan Xu
xupeiha@uwindsor.ca

Dr. John J. Hayward
Department of Chemistry and Biochemistry, University of Windsor

Dr. John F. Trant
University of Windsor

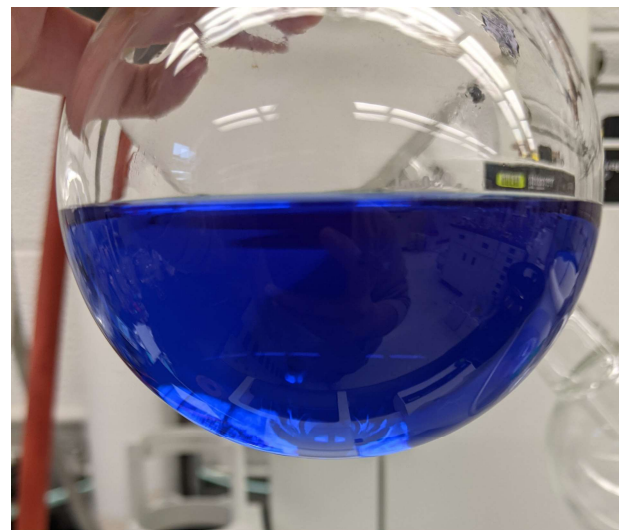
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Which colour do you want for your cells, pink or blue? -
Improving the synthesis of cyanine dyes



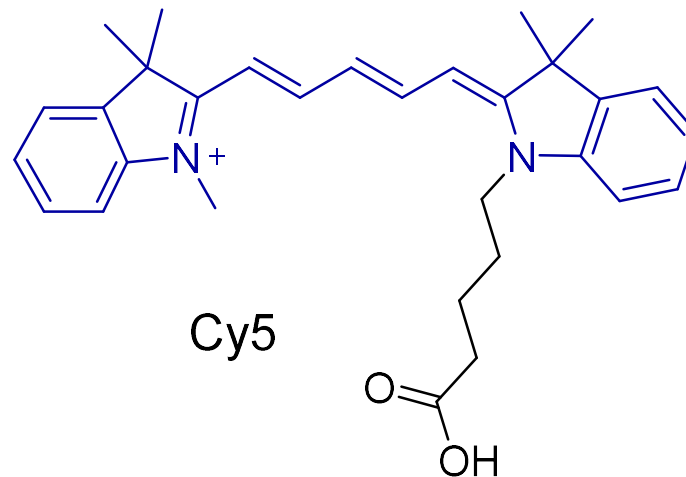
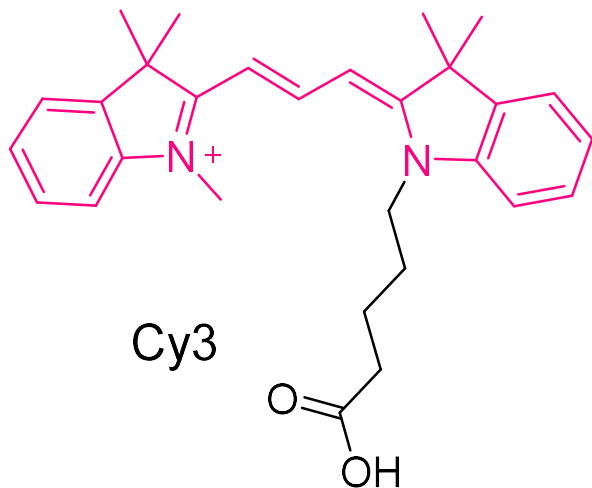
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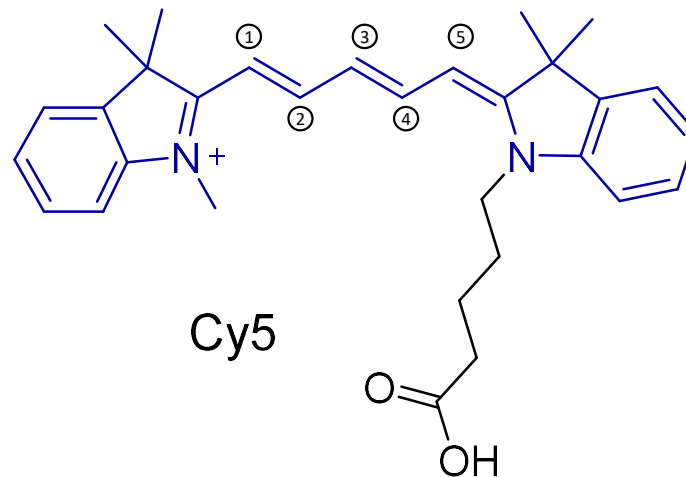
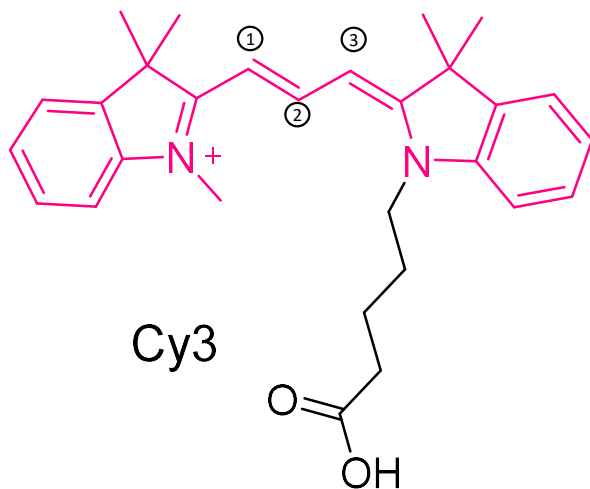


Target molecules



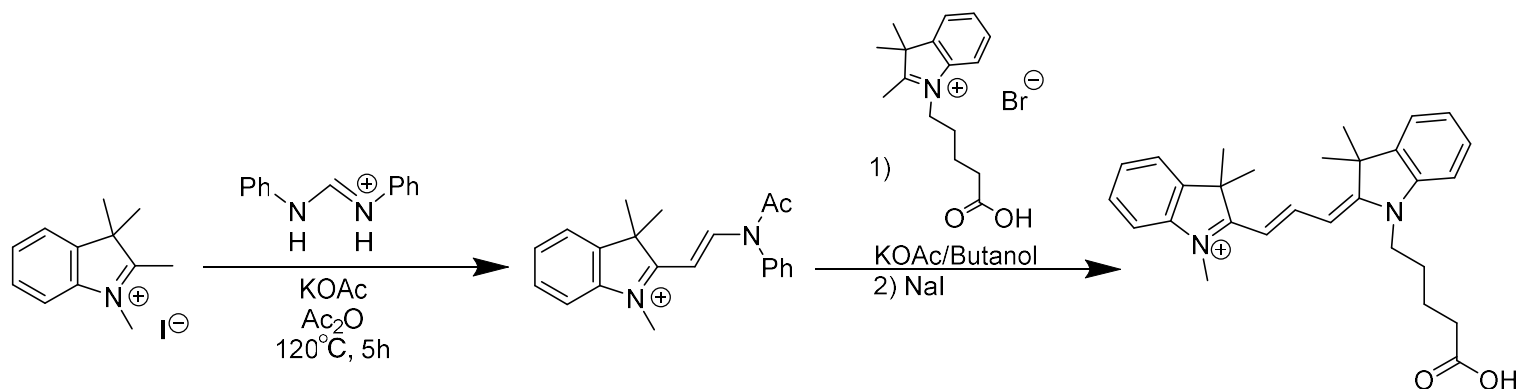


Target molecules





Synthesis route of Cy3



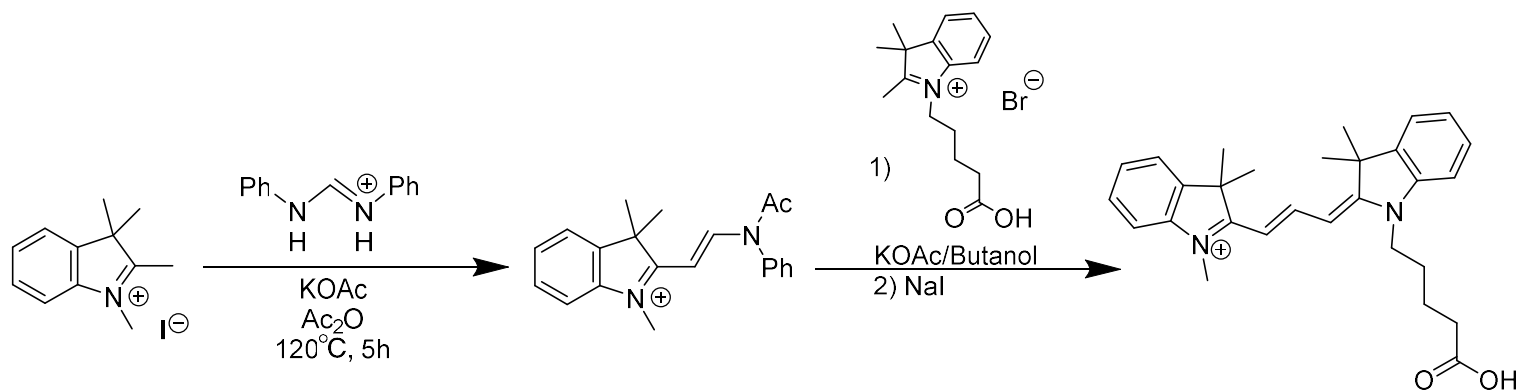
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Synthesis route of Cy3



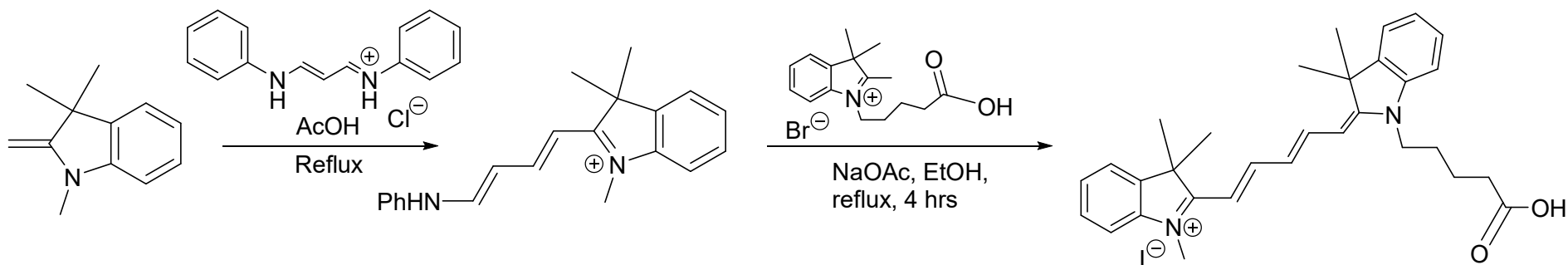
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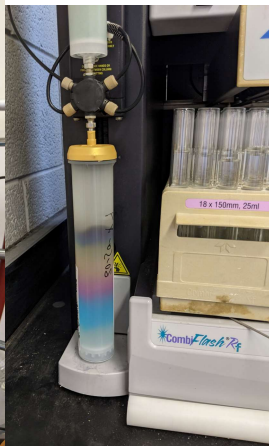
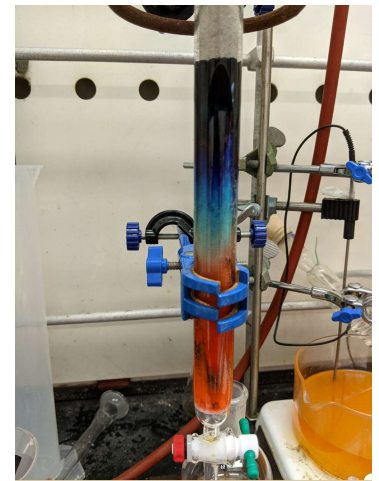
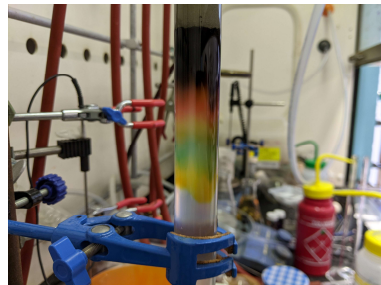
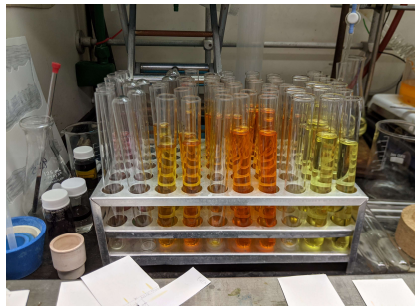


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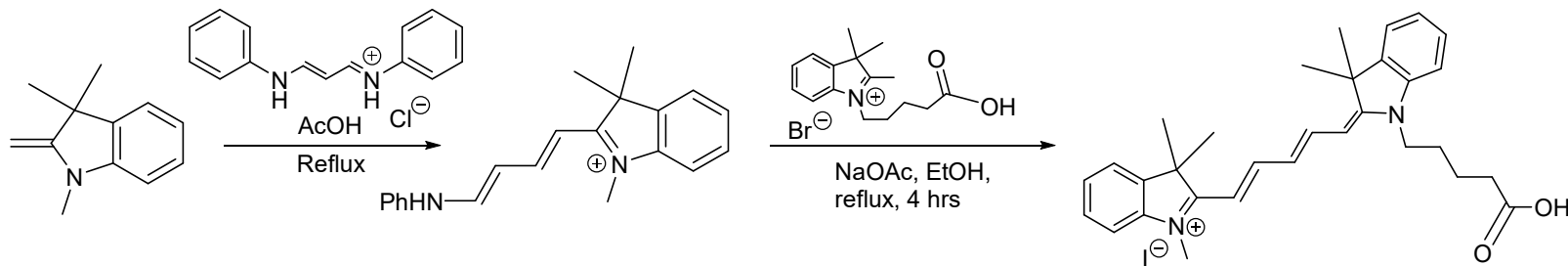
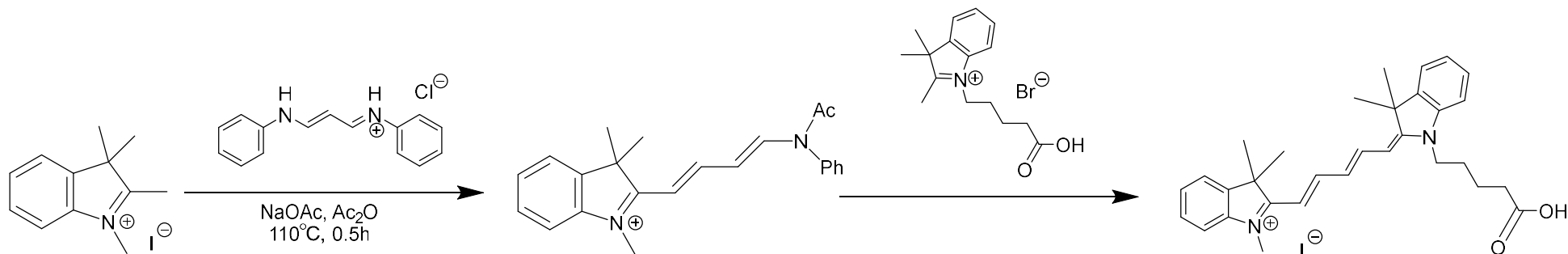
(Original) Synthesis route of Cy5







(Optimized) Synthesis route of Cy5





Supervisor: Dr. John F. Trant
Mentor: Dr. John J. Hayward



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