

Prelab – Experiment 5 Filter Circuits

Please read both the lab instructions and Appendix B before coming to lab. Appendix B can be found in Canvas in the “Appendices” folder. Then answer the following question.

1 Question 1

Do Problem 4.10 in Sprott. This circuit is the resonant filter that you will investigate in the lab. Note that the output voltage is $V_R = IR$, so the output voltage is in phase with the current. You can solve for phasor I_0 using the equivalent impedance and AC ohm’s law, which will give the amplitude and relative phase between I and V_{in} .