

ELEG 340: Solid-State Electronics, Fall 2008

Homework #5 - due Tuesday, 14 October 2008, at the beginning of class

1. Problem 4.7, p. 149 of Streetman-Banerjee, 6th edition. Similar to Example 4.4. Hint: Remember to add the excess concentration to the thermal equilibrium concentration to get the total.
2. Problem 4.9, p. 150 of Streetman-Banerjee, 6th edition. Hints: Low level injection. Remember to include holes for the resistance during illumination. CdS mobilities (assume light doping) are in Appendix III.
3. Problem 4.11, p. 150 of Streetman-Banerjee, 6th edition. Hint: transit time = length / electron velocity
4. Problem 4.13, p. 150 of Streetman-Banerjee, 6th edition.
5. Problem 4.14, p. 150 of Streetman-Banerjee, 6th edition.

Homework assignments will appear on the web at:
<http://www.ece.udel.edu/~kolodzey/courses/eleg340f08.html>

Note: On each homework and report submission, please give your name, the due date, assignment number and the course number.