









**Figure 6:** Variation of  $I_p$  with Light intensity for parallel combination of two cells (Temp=18 °C)

#### 4. Conclusion

When the photovoltaic cells were fabricated by sandwiching the material between Al-plate and conducting glass plate, then no photovoltaic effect has been observed. The output current and voltage may be increased by connecting the several cells in parallel and series respectively. The variation of  $V_p$  or  $I_p$  with excitation wavelength gives us information about energy gap of the sample. Maximum  $I_p$  and  $V_p$  is obtained in the UV region. So, the band gap of material may lie in the UV region.  $V_p$  and  $I_p$  both decrease with increasing wavelength for all the samples.

#### References

[1] J. BERANOVSKÝ, J. TRUXA et al. "Alternative energy for your house. Brno: ERA", ISBN 80-86517, pp59-4, 2004

[2] A. LUQUE, S. HEGEDUS, " Handbook of Photovoltaic Science and Engineering", John Wiley & Sons Ltd. ISBN 0-471-49196-9, 2003.

[3] A. Mottershead, " Electronic Devices and Circuits : An Introduction ", Prentice-Hall of India, pp. 514, 1980.

[4] K. MURTINGER, J. TRUXA, "Solar energy for your house. Brno: ERA", ISBN 80-7366-076-8, 2006.

[5] K. MURTINGER et al., " Photovoltaic – energy from sun. Brno: ERA", ISBN 978-80-7366-100-7, 2007.

[6] MESSENGER, R. VENTRE, " J. Photovoltaic Systems Engineering", New York: CRC Press LLC, ISBN 0-8493-1793-2, 2005.

[7] T. MARKVART, T. CASTANER, L. Solar Cells: Materials, Manufacture and Operation. Amsterdam: Elsevier, ISBN:1-85617-457-3, 2005.

[8] BELICA, P. et al., " Guide to energy saving and renewable energy sources. Valasske Mezirici: Regional Energy Centre, 89, ISBN 80-903680-1-8, 2006.

[9] Om Prakash, R. Chaitrananda Sindhu and Manish Gangey IETE Technical Review, Vol 10, No. 6, pp 579-583, Nov-Dec 1993.

[10] Y. Sakai, H. Okimura and K. Tanaka, Japanese J. Appl. Phys. Vol. 2, pp. 662, 1993.

[11] A. Zerky & G. Eldallal, Solid State Electronics, Vol. 31, No. 1, pp. 91, 1988.

[12] Meenu S. Sachan, "Study of Variation of Capacitance in (ZnO - PbCrO<sub>4</sub>) thick binder layer", Int. Joul. Science and Research, Vol 3, Issue 6, pp. 2610-2612, 2014.

[13] SumitRuhela, Sunil K. Srivastava, " Photoconductivity Study of (Al<sub>2</sub>O<sub>3</sub> – ZnS) and its Mixed Composite", Int. Joul. Of Scientific & Engg. Research, Vol. 3, Issue 11, 2012.