Chapter 6
Suggestions for future work

1. Photostriction effect in PLZT is strongly dependent on the wavelength of illumination. In this study, the absorption edge of PLZT (3/52/48) doped with Cu^{2+} and W^{6+} at 0.5 at% has been found to shift the wavelength response of PLZT to about 390 nm. Therefore the focus should be made on the effect of percentage variation of dopants on the optical absorption edge, towards the longer wavelength.

2. There was no observation of the anion substitution effects on the photostrictive properties. Substitution with lead sulfide (PbS) which has a band gap energy of 0.35 eV[40] should be further investigated to understand the role of S^{2-} which may extend the wavelength response toward visible light for wider applications and utilization.

3. The chemical synthesis method advantages on low sintering temperature and better control over stoichiometry as compared to the conventional oxide mixing technique. It is worthwhile to fabricate PLZT ceramics doped with promising dopants via co-precipitation or sol-gel techniques in order to control the distribution and concentration of dopants and PLZT which can affect the optical property of doped PLZT ceramics