

Supporting Information

Three-Dimensional Printing of Nonlinear Optical Lenses

Esa Kukkonen ^a, Elmeri Lahtinen ^a, Pasi Myllyperkiö ^b, Jari Konu ^a and Matti Haukka ^a*

^a Department of Chemistry, University of Jyväskylä, P.O. Box 35, FI-40014 Jyväskylä, Finland.
Email: matti.o.haukka@jyu.fi

^b Nanoscience Center, University of Jyväskylä, P.O. Box 35, FI-40014 Jyväskylä, Finland.

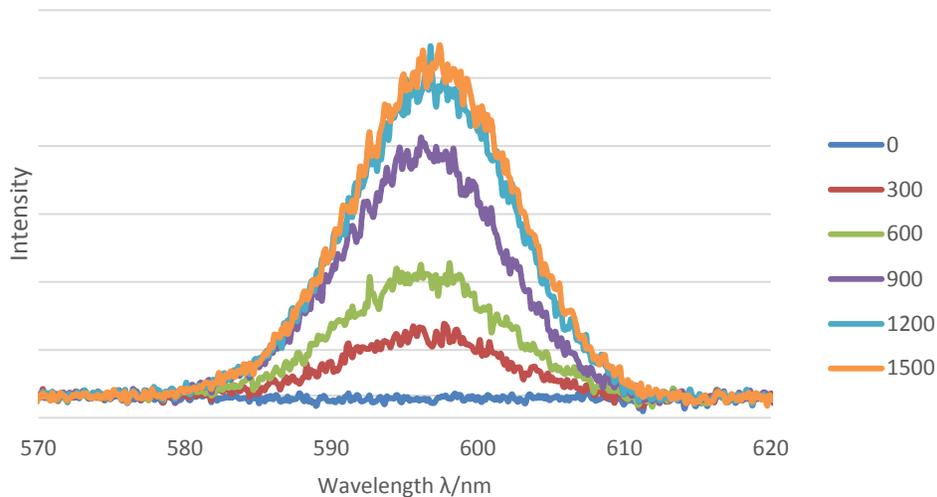


Figure S1. The SHG intensities of urea containing NLO lenses. The spectra were collected with 10 consecutive 0.217 s exposure pulses.

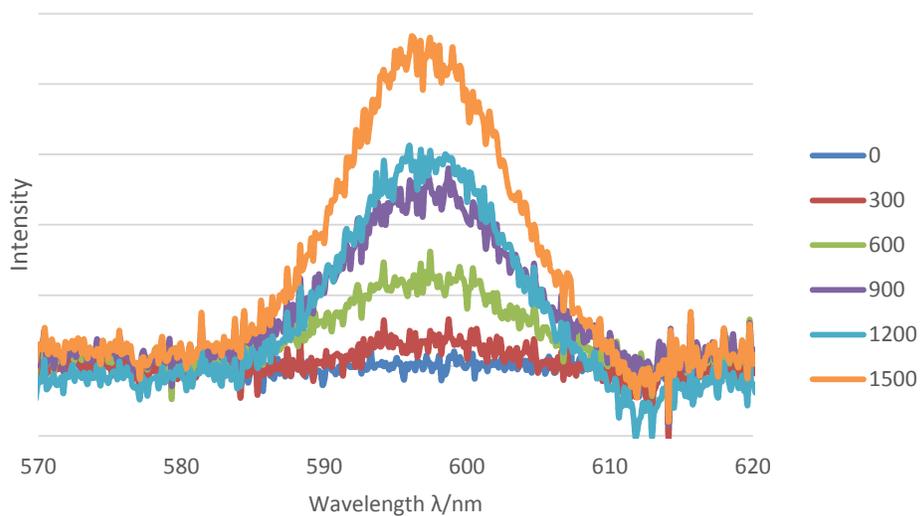


Figure S2. The SHG intensities of the KDP containing NLO lenses. The spectra were collected with 10 consecutive 2.17 s exposure pulses.

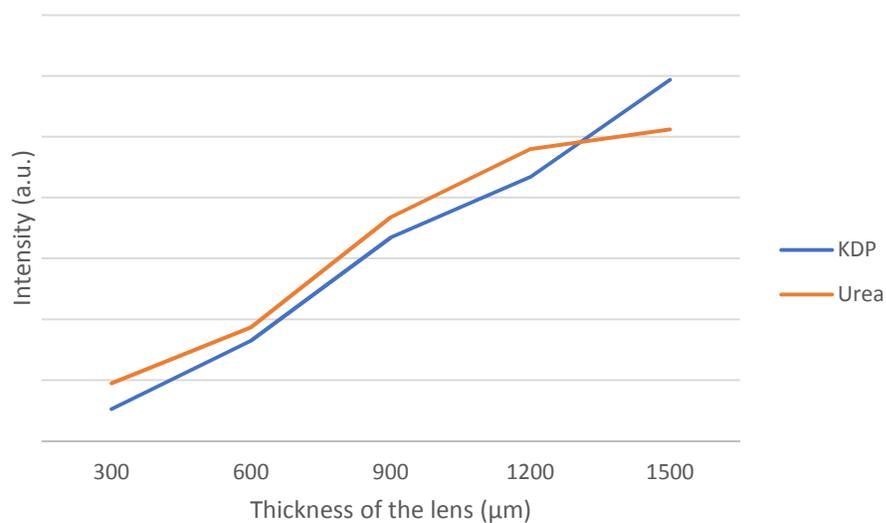


Figure S3. The SHG intensities based on the integrated surface areas of the SHG signals for KDP and urea lenses as the function of lens thickness.

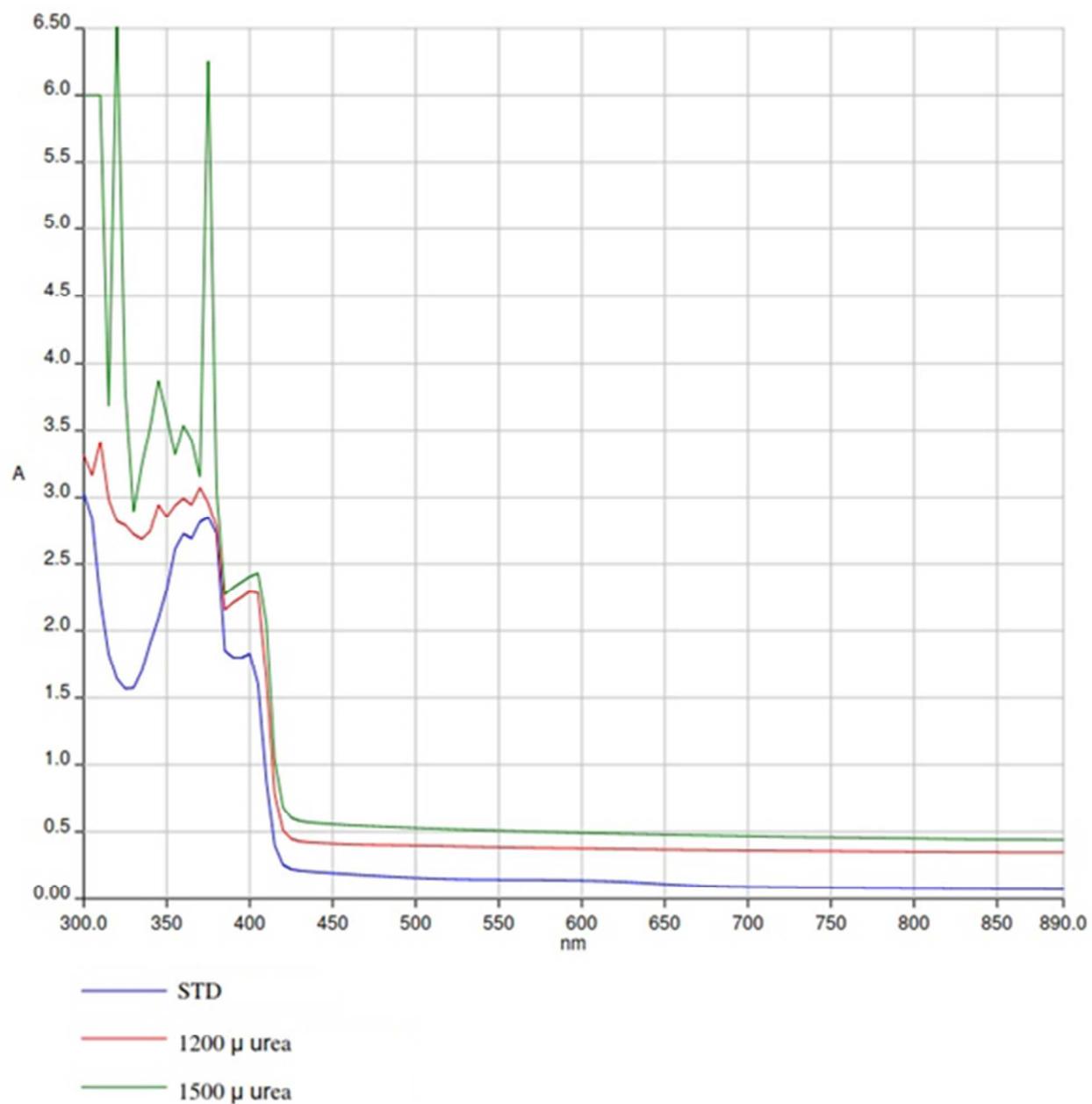


Figure S4. The UV/Vis absorbance spectrum of the printed polyacrylate based object without the NLO component (STD). The UV/Vis spectra of 1200 and 1500 μm thick urea containing lenses.

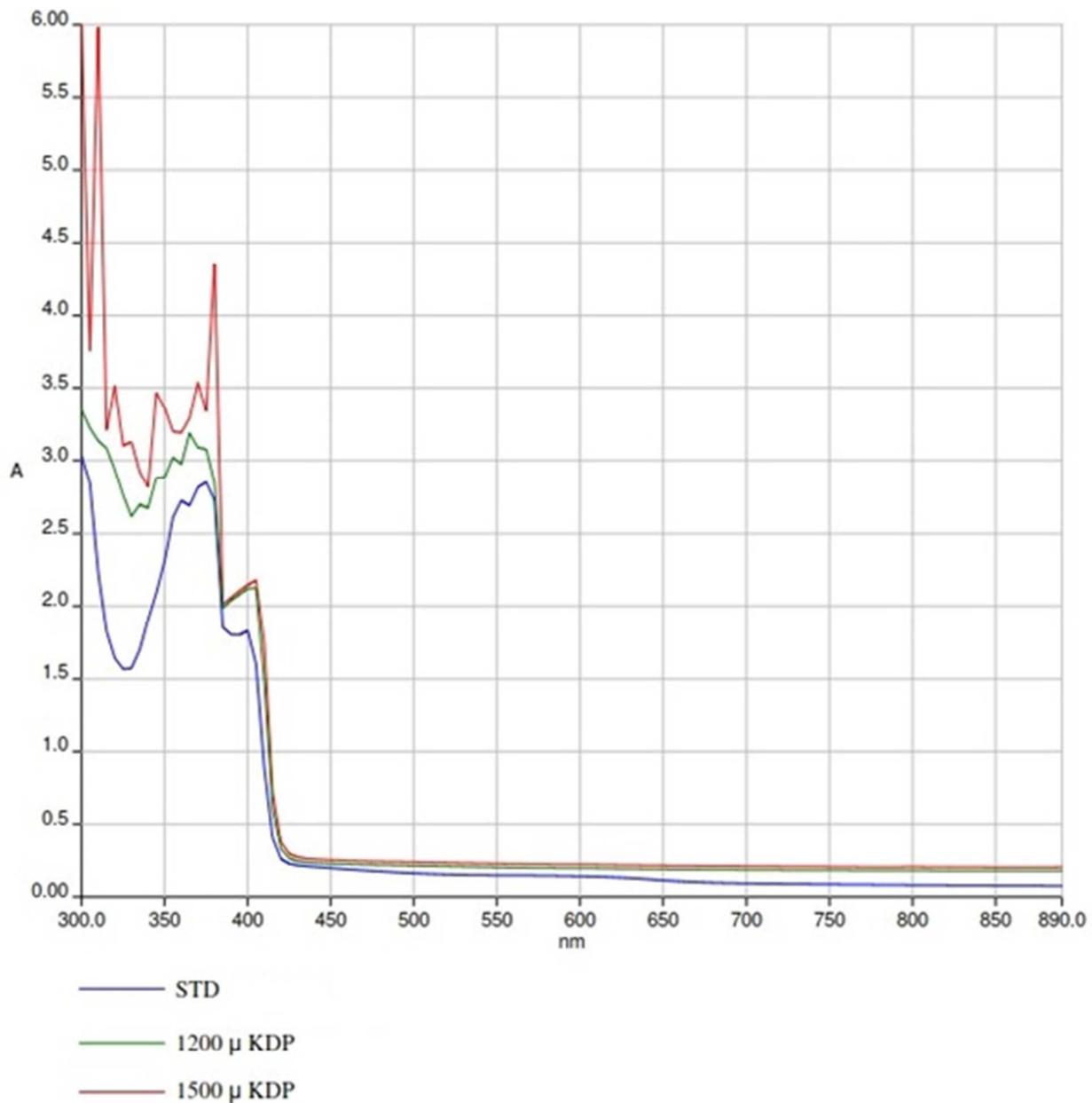
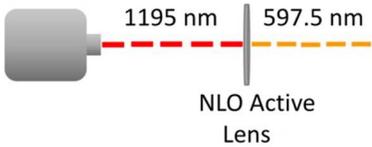


Figure S5. The UV/Vis absorbance spectrum of the printed polyacrylate based object without the NLO component (STD). The UV/Vis spectra of 1200 and 1500 μm thick KDP containing lenses.

Table S1. The SHG intensities of the KDP and urea lenses based on the integrated surface areas of the SHG signals.



Lens thickness (μm)	KDP lens intensity (a.u.)	Urea lens intensity (a.u.)
300	10460	18930
600	32990	37370
900	66830	73570
1200	86760	95960
1500	118710	102400