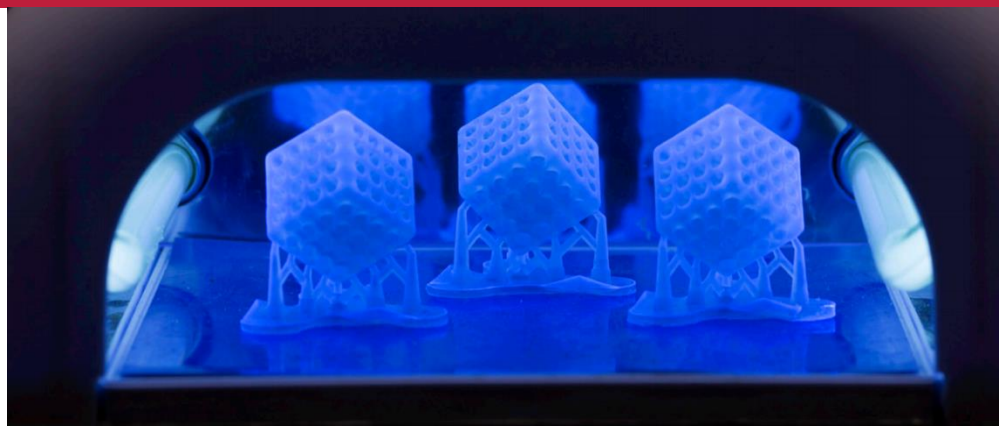
Influence of post-curing settings and methods on piezoelectric properties

✓ Bachelor- / Studien- / Masterarbeit



3D printed piezoelectric sensors require additional post-curing step after the printing. This additional step requires UV-light and heat to improve mechanical, electrical and thermal properties of the sensors. Varying curing parameters (UV-light exposure) and temperature produce different influence on the performance of the sensors.

Two different post-curing sources are available. Both produce light and heat and various combinations of the parameters must be systematically investigated. The exact influence of UV-light exposure, temperature on properties must be understood. The best combination of parameters must be found and proven experimentally.

Tasks:

- Investigate the influence of post-curing step (UV-light and temperature) on the mechanical, electrical and thermal properties of the sensors
- Manufacture the sensors and measure their performance

Additional information:

- Part of experimental work might take place at DLR Braunschweig
- Multiple works on same topic possible (e.g. Studienarbeit + Masterarbeit)

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