

Investigation of Photopolymer Suitability for 3D Printing of Piezoelectric Composites

✓ Bachelor- / Studien- / Masterarbeit

Piezoelectric composites, made of photopolymer and piezoelectric particles are 3D printable. They offer high flexibility, tailorable properties and high piezoelectric output while at the same time can have almost any geometry.

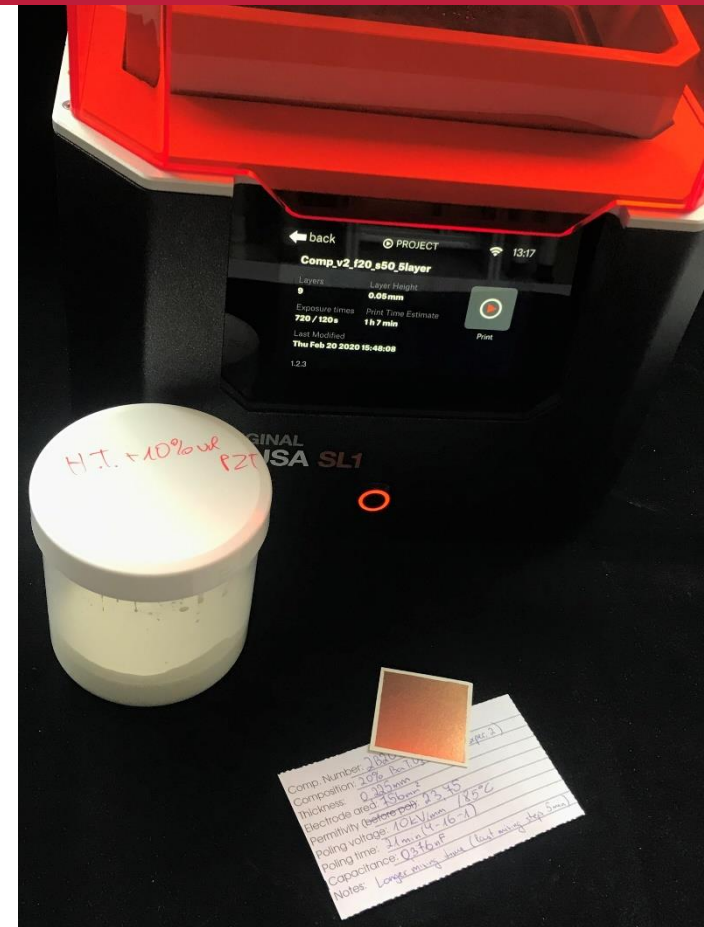
Different photopolymers have different mechanical properties that directly influence the final piezoelectric output. Moreover, some photopolymers are more suitable for piezoelectric composites than other. Their suitability for piezoelectric composite printing must be systematically investigated.

Tasks:

- Investigation and comparison of commercially available photopolymers
- Development of mixing procedure
- 3D printing of piezoelectric composites
- Comparison of performance of 3D printed piezoelectric composites

Additional information:

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



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