

Thesis Title	Controllable fabrication of bent near-field optical fiber probes by electric arc heating
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## ABSTRACT

We describe the construction of a high voltage electric arc puller for controllable fabrication of bent near-field optical fiber probes. Various probes with bent angles ranging from 30 degree to 75 degree and bent length between 600 and 900  $\mu\text{m}$  were successfully produced. The tip diameters achieved are between 100 and 200 nm. These bent type probes can be made into cantileverd probes that can be used for any dynamic mode atomic force microscope, and make the construction of a scanning near-field optical microscope easily attainable.