We present recent results on UV contact lithography in the sub-0.5µm range. Using a high resolution master mask and a conventional broadband resist material we were able to fabricate submicron structures down to 200nm. A subsequent additive or subtractive pattern transfer (Lift-off and dry etching) was accomplished to visualize the structures and to show the ability of this technique.

Concrete application is the fabrication of a capacitive biochemical sensor for detecting DNA bindings. This sensor includes large interdigitated electrode arrays with a half pitch of 500 nm or smaller.