Double side polished, 500 μm, (100) n-doped silicon wafer

LPCVD to deposit 200 nm silicon nitride and etch backside

Patterning 300 nm gold features

Deposit and etch polyimide passivation layer

KOH etch to form well

Etch nitride from backside to release membrane

Spin photoresist and deposit gold

Lift-off processing of gold features

Deposit MPTMS (3-mercaptopropyl-trimethoxysilane)

Spin PDMS

Transfer gold feature to PDMS (After curing in 80°C oven for 90 minutes)

Process Flow Diagrams

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