PMGI & LOR

Sacrificial layers for bi-layer lift-off processing

MICRO•CHEM

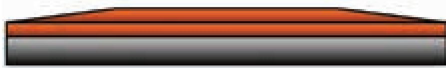
NIPPON KAYAKU

PMGI & LOR resists are commonly used as under layers in very high resolution or very thick bi-layer metal lift-off processes. They are also used as sacrificial layers to form air bridges and other 3-D structures. PMGI & LOR resists won't intermix with conventional photo resists, are compatible with TMAH and metal ion containing developers and strip cleanly and easily in NMP-based resist strippers.

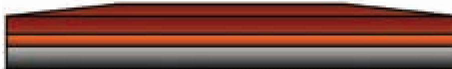
Attributes

- Compatible with most photoresists & developers
- Easy to tune re-entrant sidewall profiles
- Strips easily in NMP-based strippers
- Available in a wide range of film thicknesses

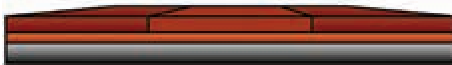
Process Flow



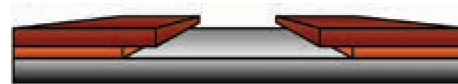
1. Coat and Soft-bake PMGI or LOR.



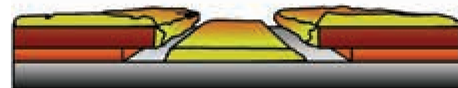
2. Coat and Soft-bake Imaging Resist.



3. Expose Imaging Resist.

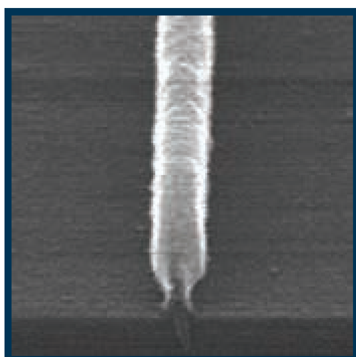


4. Develop resist and PMGI/LOR.

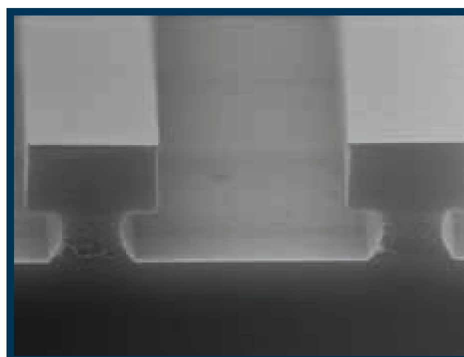


5. Deposit film.

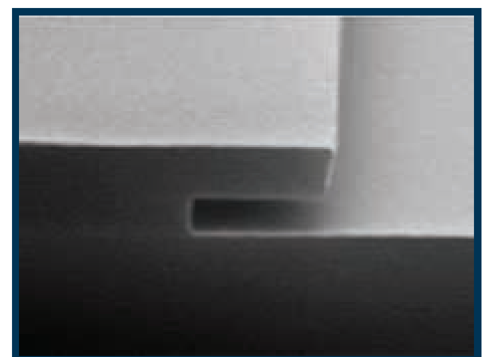
6. Lift-off Bi-layer stack and residual deposition.



SFG2 – 80 nm line



LOR 30B 5 μm lines



PMGI 0.6 – 3 μm line

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