

Addendum to Eddy ALD-2019 abstract submission entitled
**Growth of AlN Barriers in Al/AlN/Al SIS Josephson Junctions
by Low Temperature Atomic Layer Epitaxy**

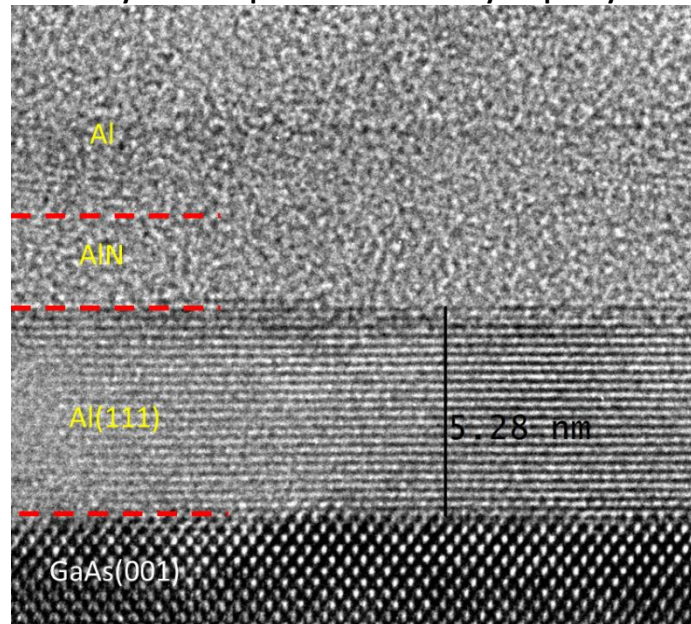


Figure 1. Cross sectional TEM of Al/AlN/Al structure formed by application of 5 cycles of nitridation atomic layer process. AlN is formed by consumption of underlying epitaxial aluminum to a thickness of 2nm. Aluminum layer on top shows evidence for polycrystallinity.

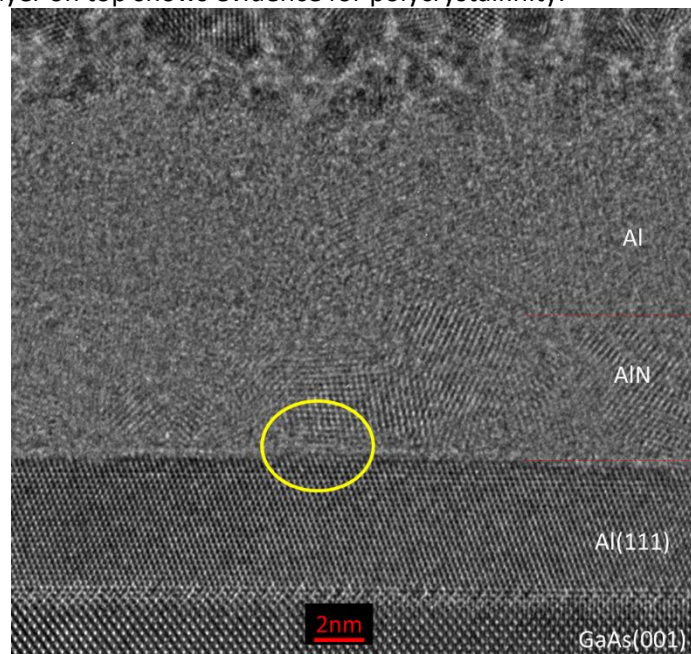


Figure 2. Cross sectional TEM of Al/AlN/Al structure formed by application of 1 cycle of nitridation ALP, followed by 5nm of AlN growth by low temperature (300°C) atomic layer epitaxy. AlN barrier shows polycrystallinity and select regions of sharp, potentially epitaxial interfaces. Aluminum layer on top shows evidence for polycrystallinity.