From: "Arthur W. Lichtenberger" <awl1l@watt.seas.virginia.edu>
To: "S.-K. Pan" <span2@NRAO.EDU>, Tony Kerr <AKerr@NRAO.EDU>
Subject: deliv
Date: Wed, 30 Apr 1997 12:03:07 -0400 (EDT)

Pan, Tony:

Two wafers to deliver

N5-05-L354C-0497

This wafer has thinner junction SiO as desired. This wafer has the same current density as previous N5 wafers; however, a modified trilevel resist junction process was used. In this process the poly Cr structure is replaced with a poly/Nb system. The advantages of this system is that the Cr wet etch is replaced with a Nb RIE etch - this should give more repeatable/uniform junction sizes across the wafer. We have also found the Futurex junction lithography on poly/Nb to be more uniform and closer to mask dimensions (similar to our anodization junction process with a simple Futurex resist structure) than with poly/Cr. From SEM the junction sizes on this wafer are more uniform across and closer to 1.7um (1.7-1.8um). The Junction resistance from NRAO pogo elements are all very similar (I-Vs alomost line up) - about 47 ohms.

N5-06-L366C-0497

This wafer has thinner junction SiO as desired. This wafer had a lower oxidation dose - shooting for 6.5KA/cm2, up from 5KA/cm2. Used poly/Cr based trilevel resist. Junction resistances (40-60) were more scattered than for N5-05-354C... wafer (?poly/Nb better process?).

Art

ps I have interviewed several people for the lba specialist position. My favorites so far are Lisa Seidel and Jian-Zhong Zhang. In the interview Lisa picked up very quickly on my cross section drawings of the device process and interpreted several SEMs correctly. She corrected my mistaken use of units once and seemed very eager and excited. She knows photolithography and RIE. She would hit the ground running more than any other candidate. My main reservation is not knowing if she will continue to "work" at a job 6 months from now (she doesn't need to work given her settlement and its difficult to judge if her desire to work will last). [this is all confidential]

Jian-Jhong has been in the states for 3 months, his wife has a 3.5 year appointment with the hospital as a research fellow. He has B.D. (medicine) and M.D. (orhtopedics/1993) degrees from China. He has performed microsurgery, experienced in electron microscopy, biochemistry ...other medical techniques. He seemed very bright, enthusiastic and educated. His english was so so, I had to speak slowly and choose my words. He could be a good find, (definitely good with his hands, attentive to detail etc) though I would

expect that he would take longer to train than Lisa. Whether his
english will improve or not is my major concern. He is taking a class
at Piedmont and says that he working "very hard" at this.