

APPENDIX D
COUPON MARK MICROSCOPY DOCUMENTATION
SEM IMAGES
OPTICAL IMAGES

S2A COUPON

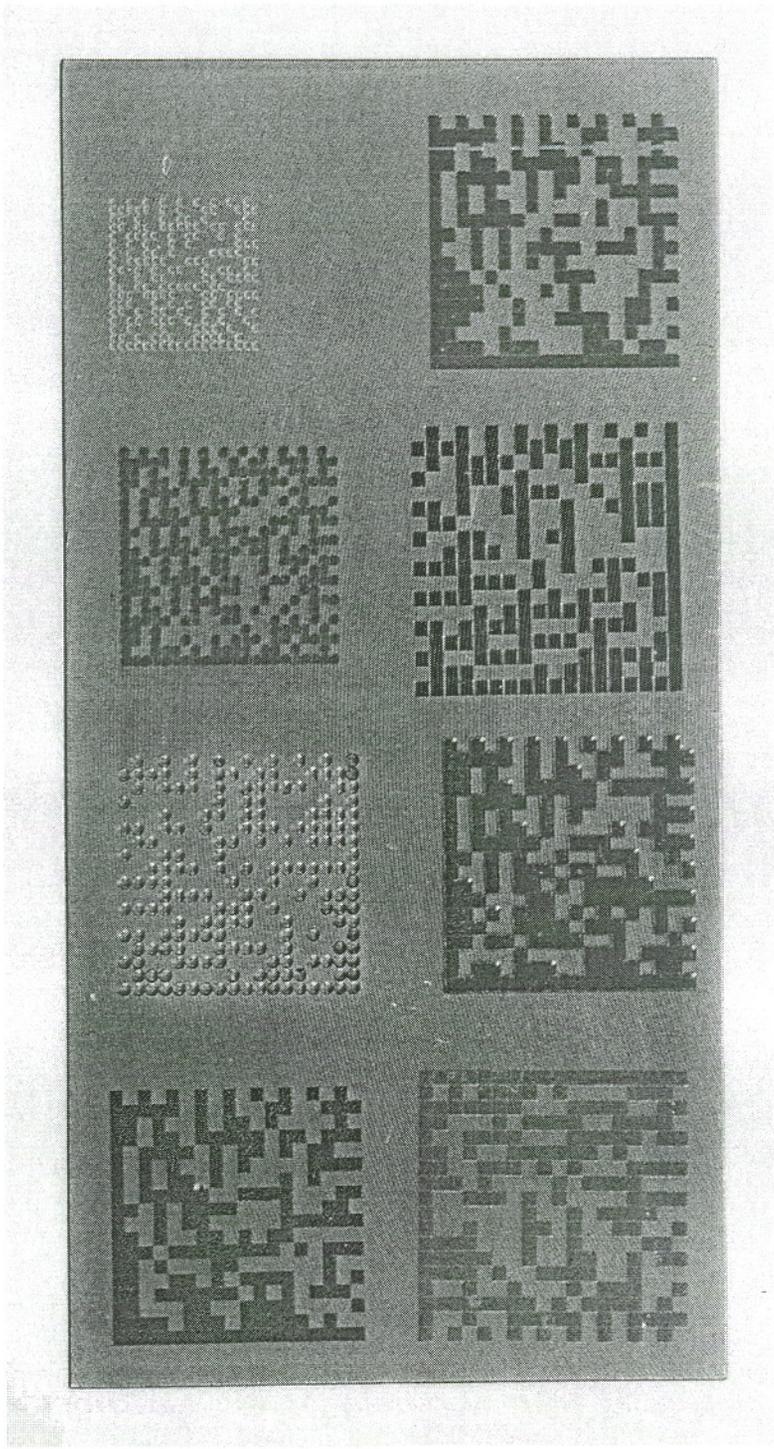


Figure S2A.0: Optical Image of Coupon S2A (~2X)

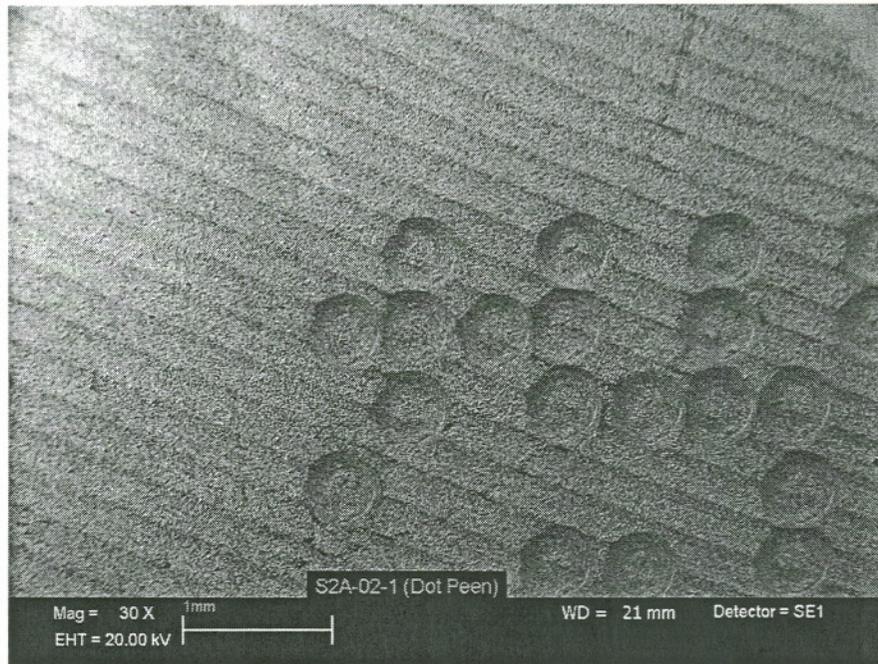


Figure S2A.1.1: SEM Surface Image of Dot Peen Cells (~30X)

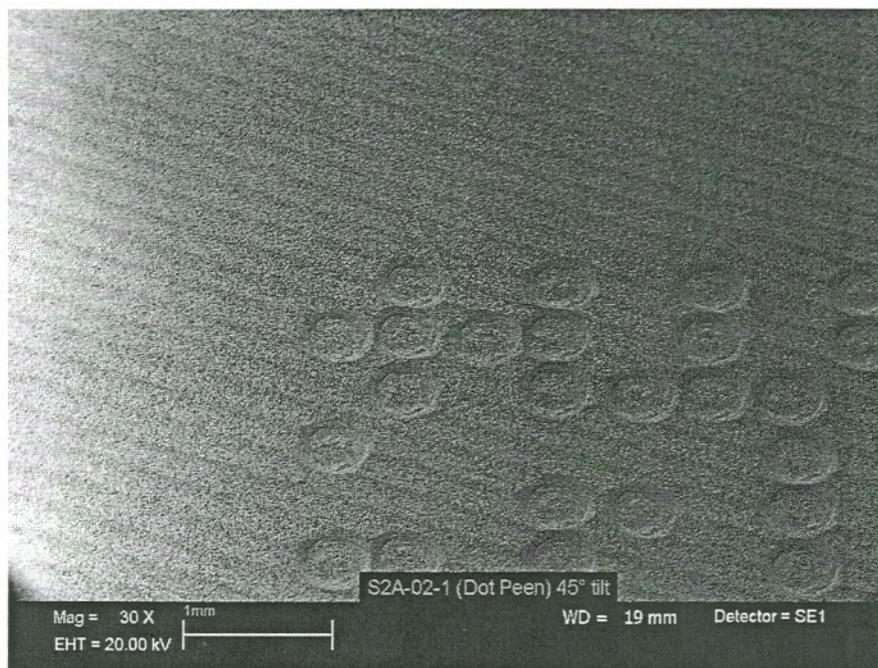


Figure S2A.1.2: SEM Surface Image of Dot Peen Cells at 45° Tilt (~30X)

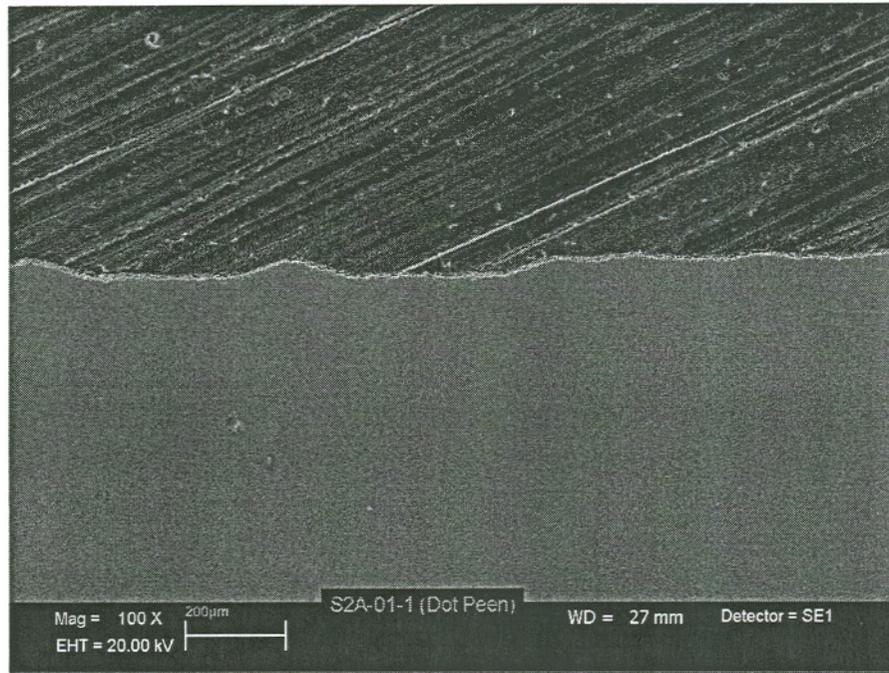


Figure S2A.1.3. SEM Cross Section Image of Dot Peen Cells (~100X)

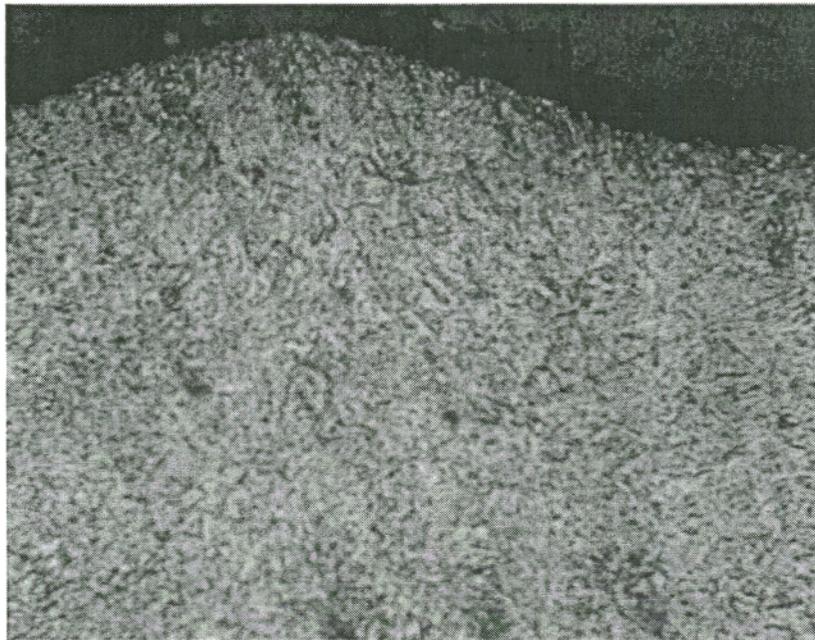


Figure S2A.1.4. Optical Cross Section Image of Etched Dot Peen Cell (~500X)

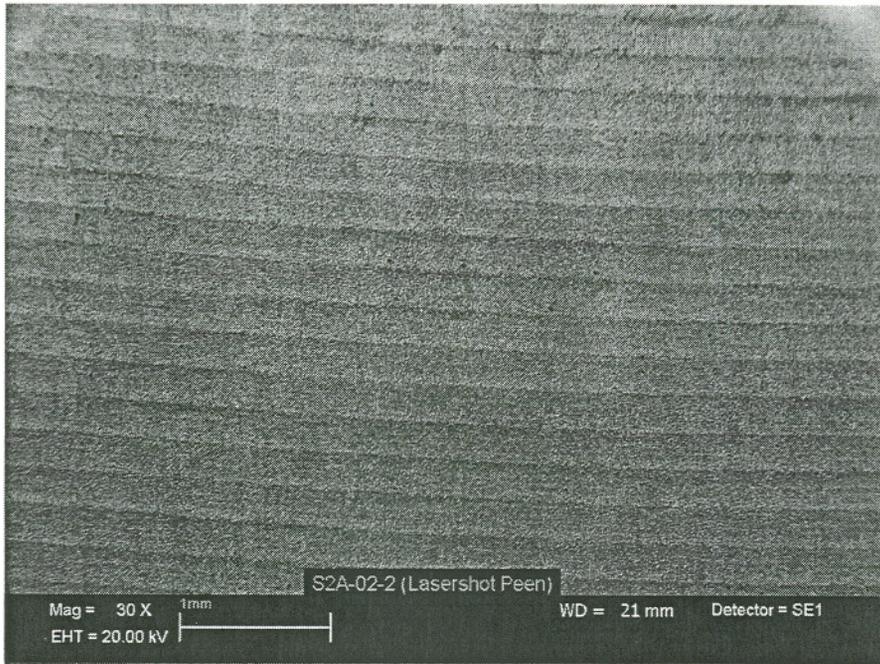


Figure S2A.2.1: SEM Surface Image of Lasershot™ Peen Cells (~30X)

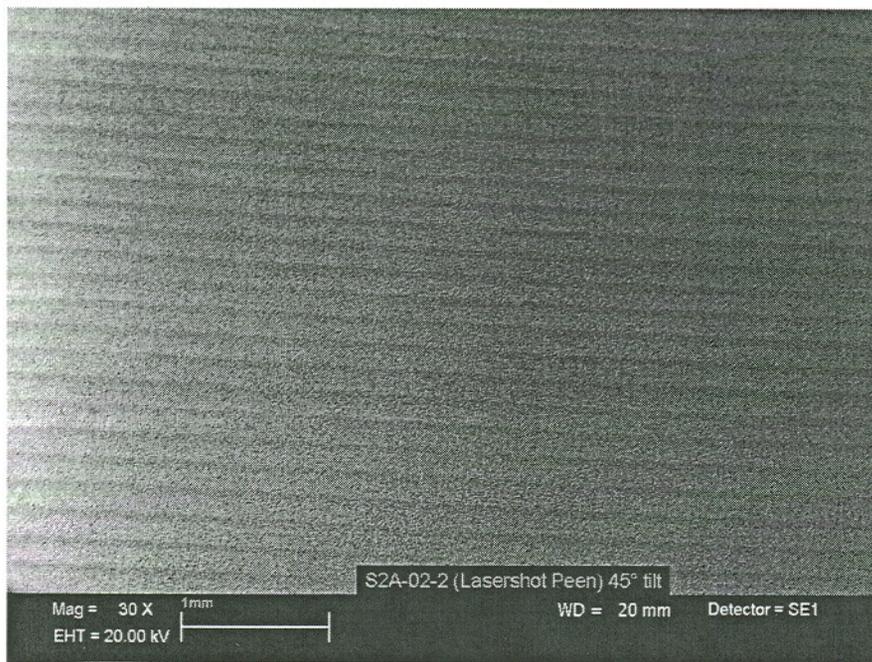


Figure S2A.2.2: SEM Surface Image of Lasershot™ Peen Cells at 45° Tilt (~30X)

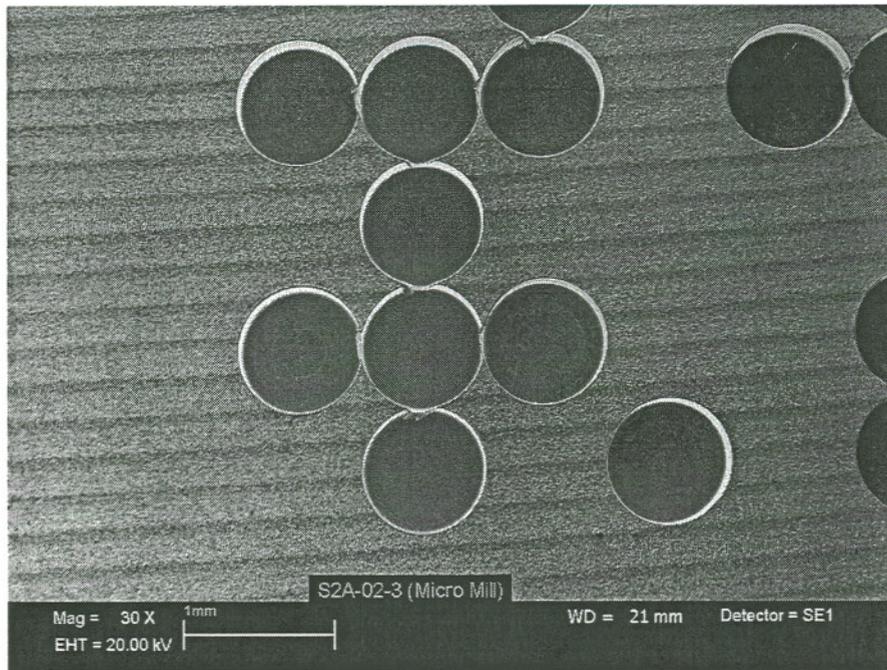


Figure S2A.3.1: SEM Surface Image of Micro-Mill Cells (~30X)

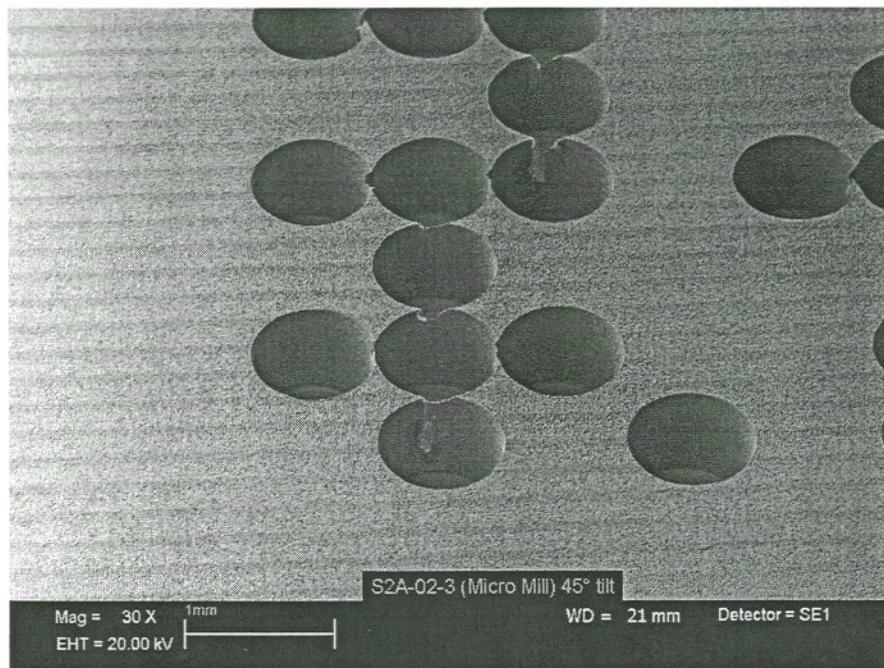


Figure S2A.3.2: SEM Surface Image of Micro-Mill Cells at 45° Tilt (~30X)

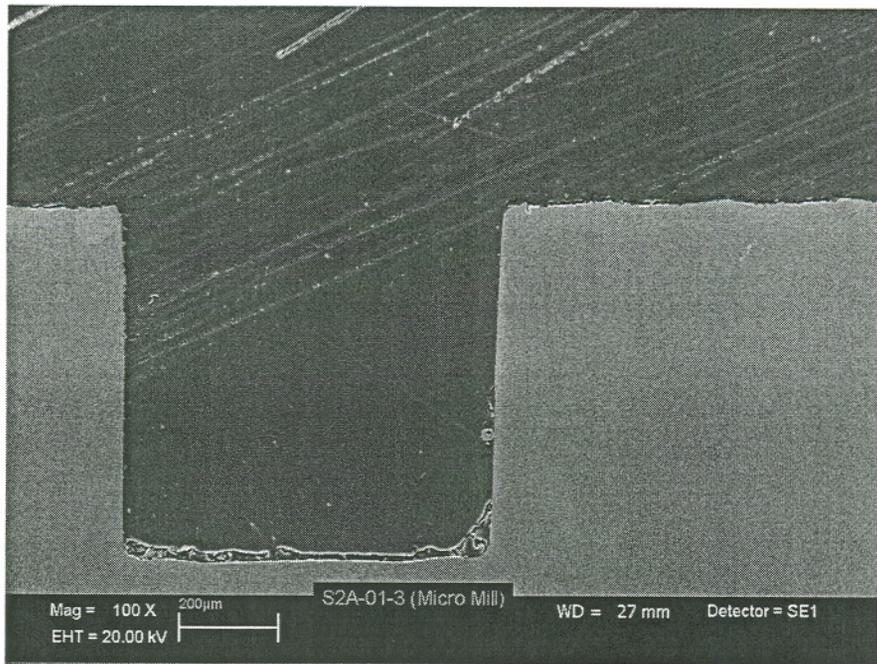


Figure S2A.3.3: SEM Cross Section Image of Micro-Mill Cells (~100X)

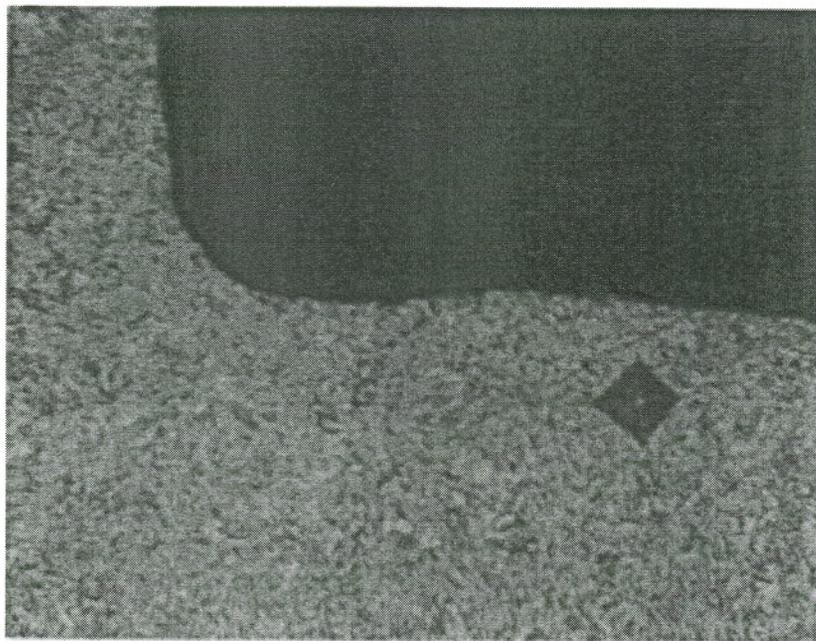


Figure S2A.3.4: Optical Cross Section Image of Etched Micro-Mill Cell (~500X)

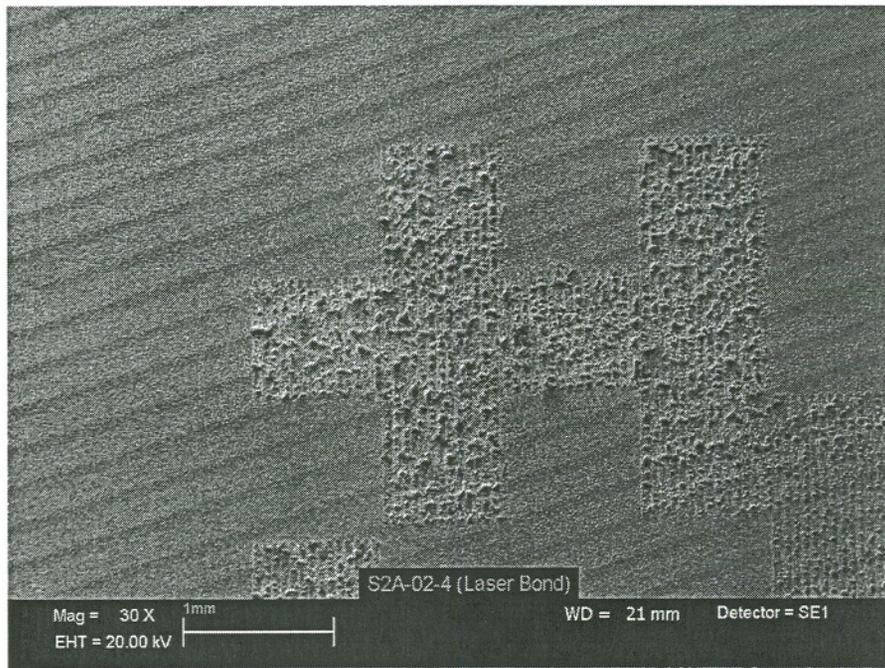


Figure S2A.4.1: SEM Surface Image of Laser Bond Cells (~30X)

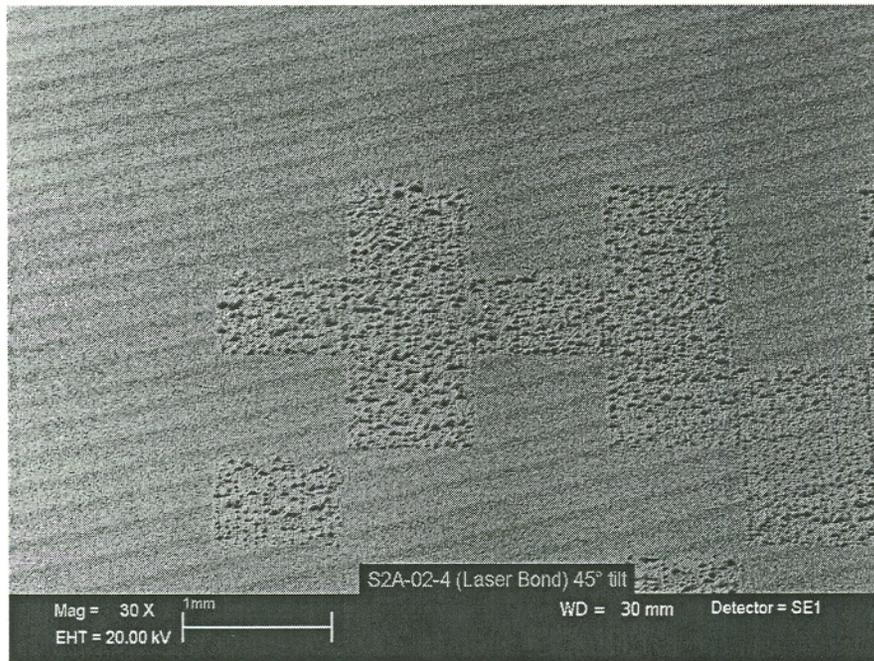


Figure S2A.4.2: SEM Surface Image of Laser Bond Cells at 45° Tilt (~30X)

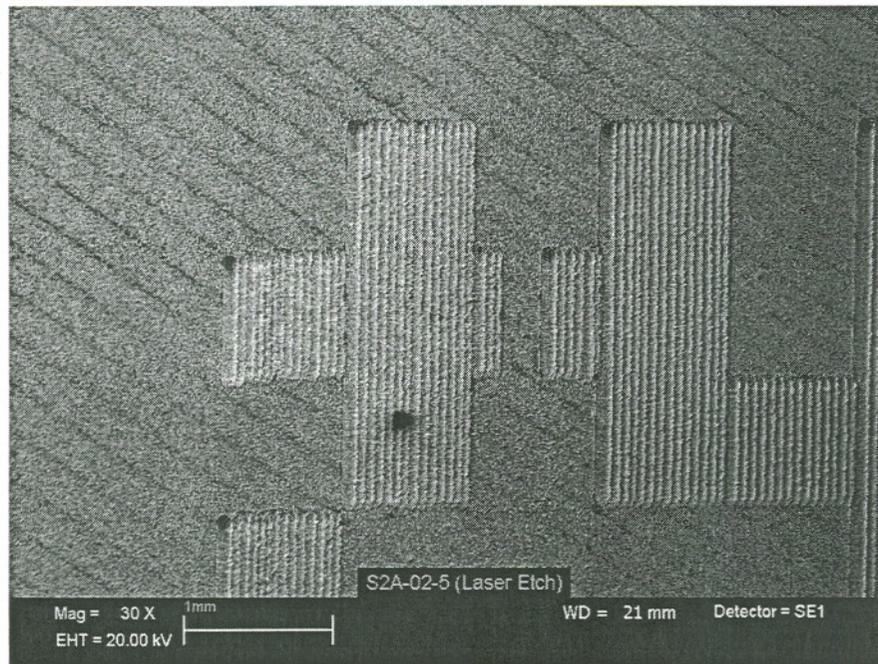


Figure S2A.5.1: SEM Surface Image of Laser Etch Cells (~30X)

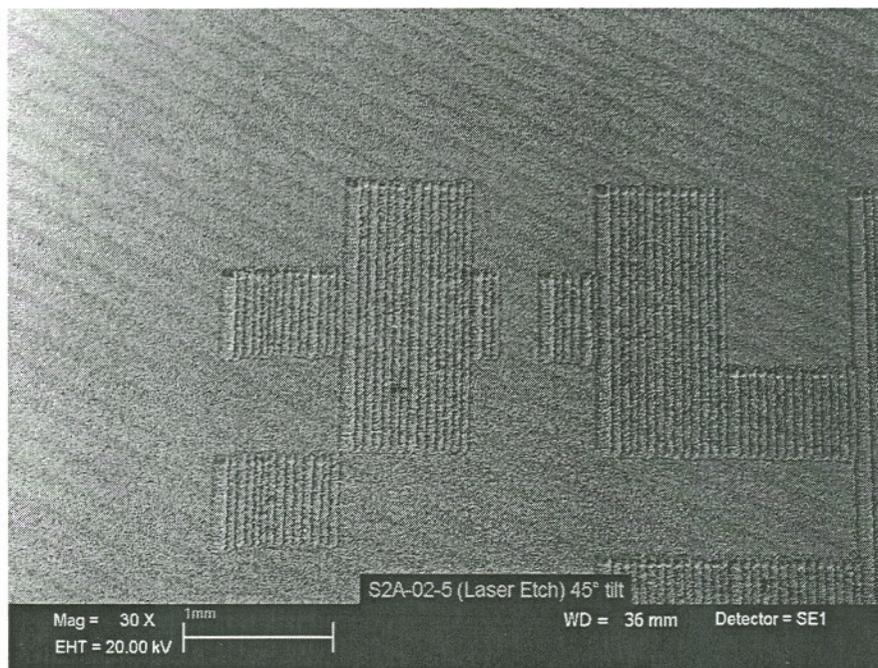


Figure S2A.5.2: SEM Surface Image of Laser Etch Cells at 45° Tilt (~30X)

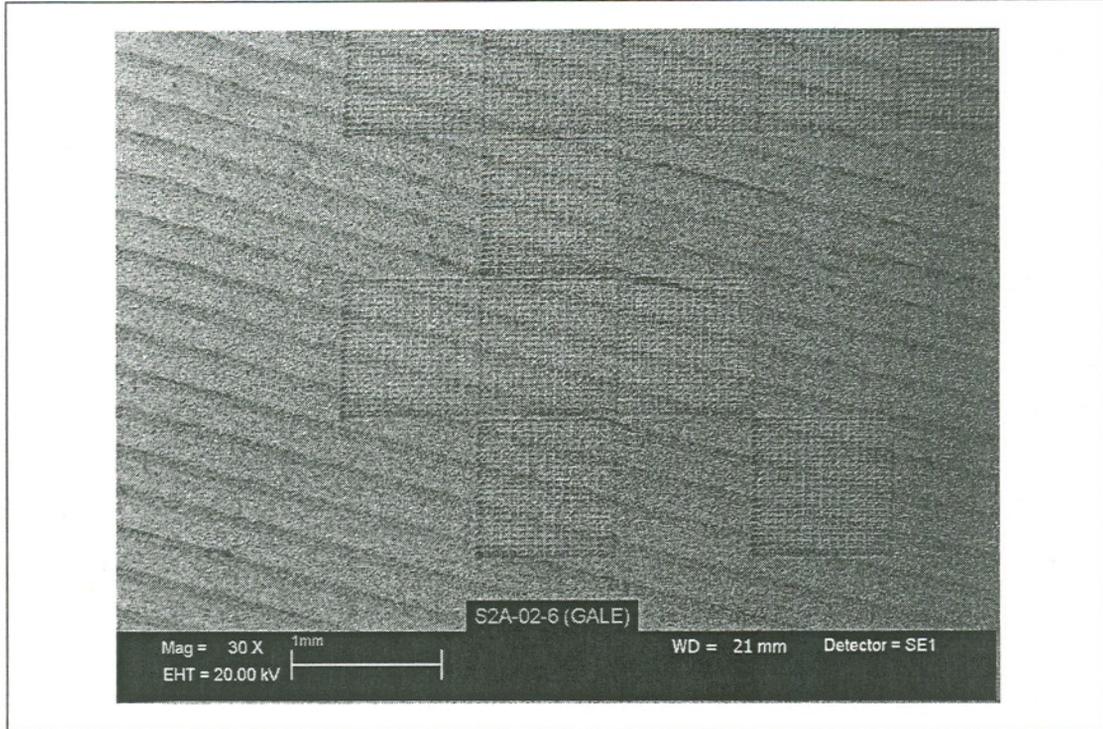


Figure S2A.6.1: SEM Surface Image of GALE Cells (~30X)

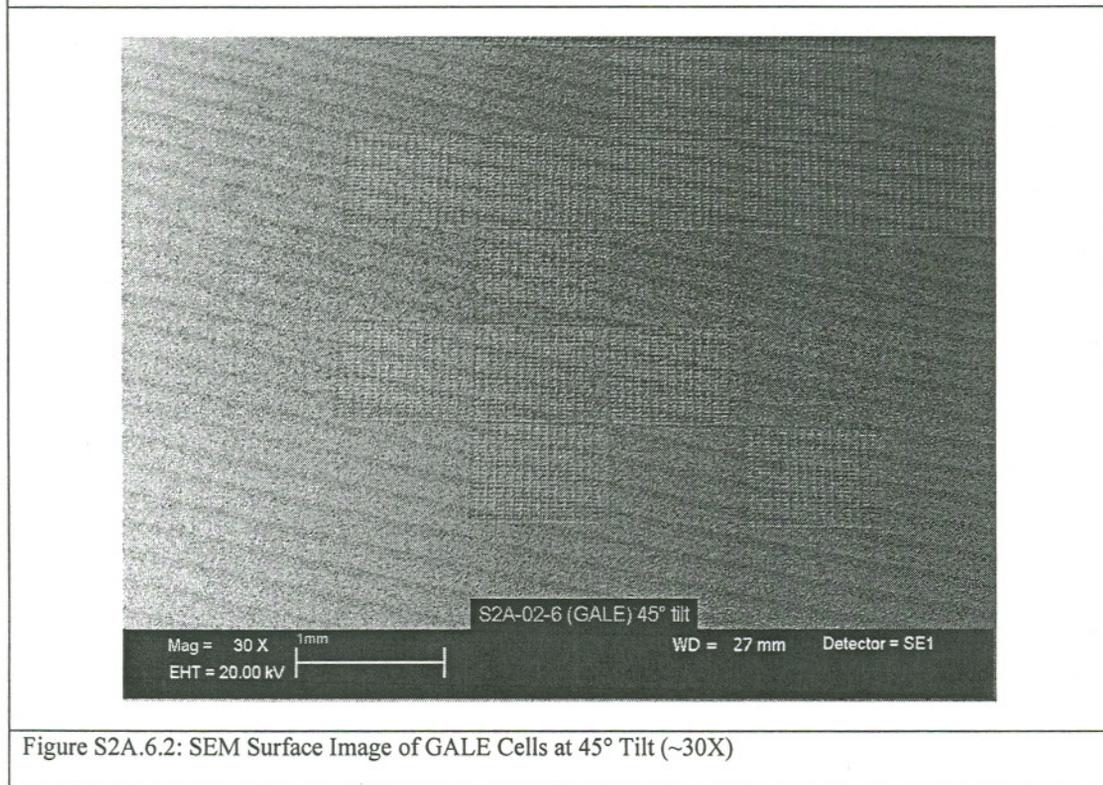


Figure S2A.6.2: SEM Surface Image of GALE Cells at 45° Tilt (~30X)

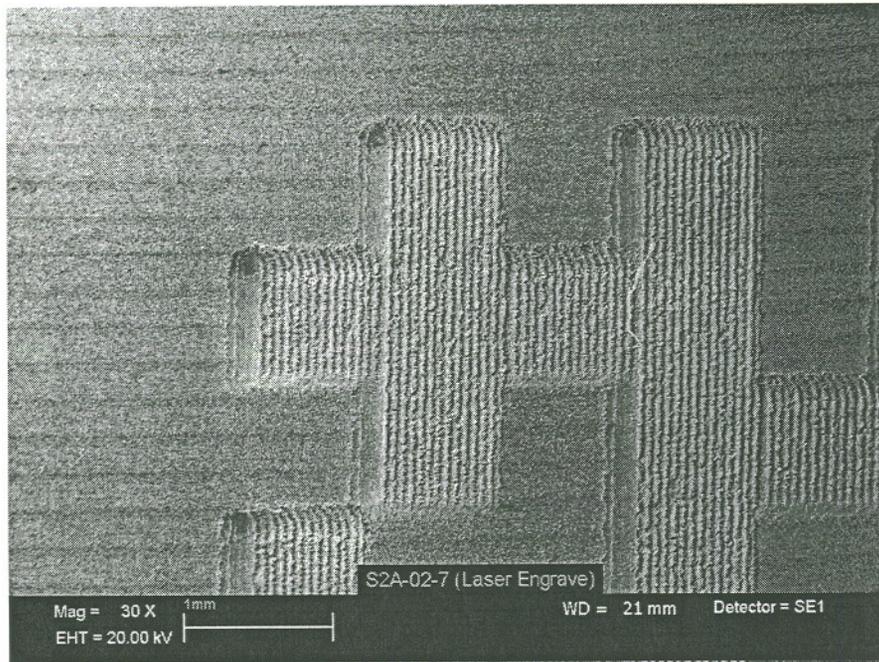


Figure S2A.7.1: SEM Surface Image of Laser Engrave Cells (~30X)

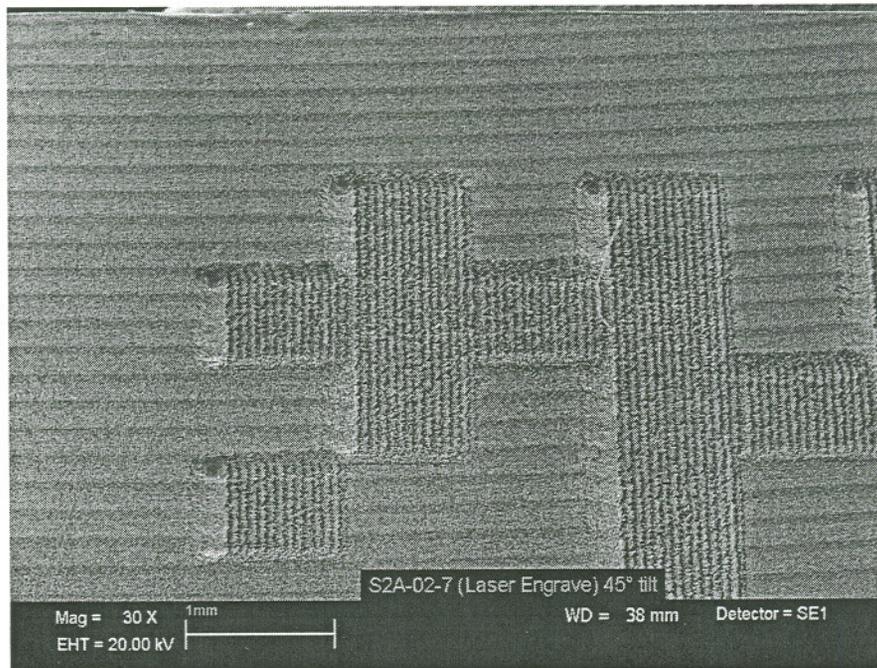


Figure S2A.7.2: SEM Surface Image of Laser Engrave Cells at 45° Tilt (~30X)

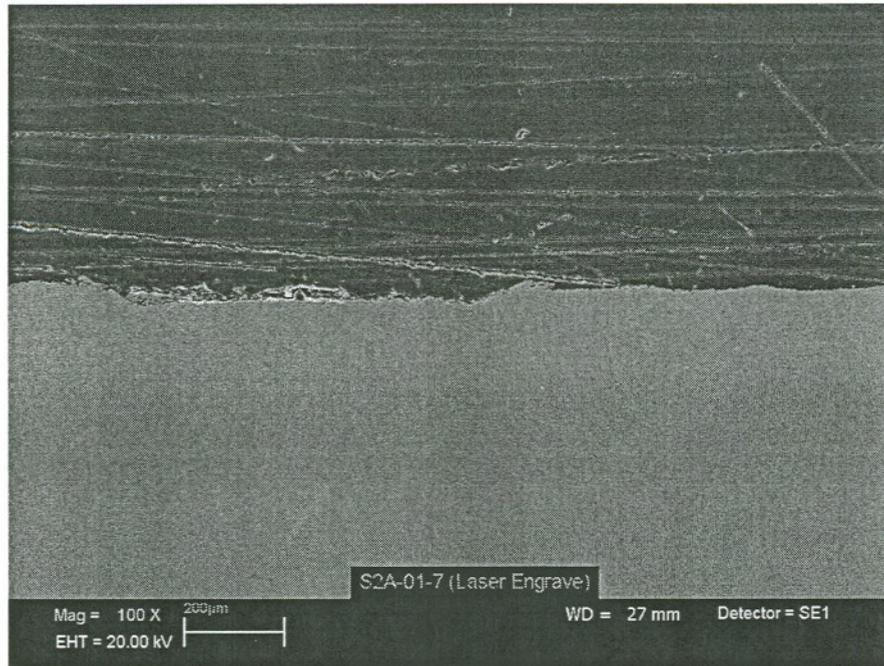


Figure S2A.7.3: SEM Cross Section Image of Laser Engrave Cells (~100X)

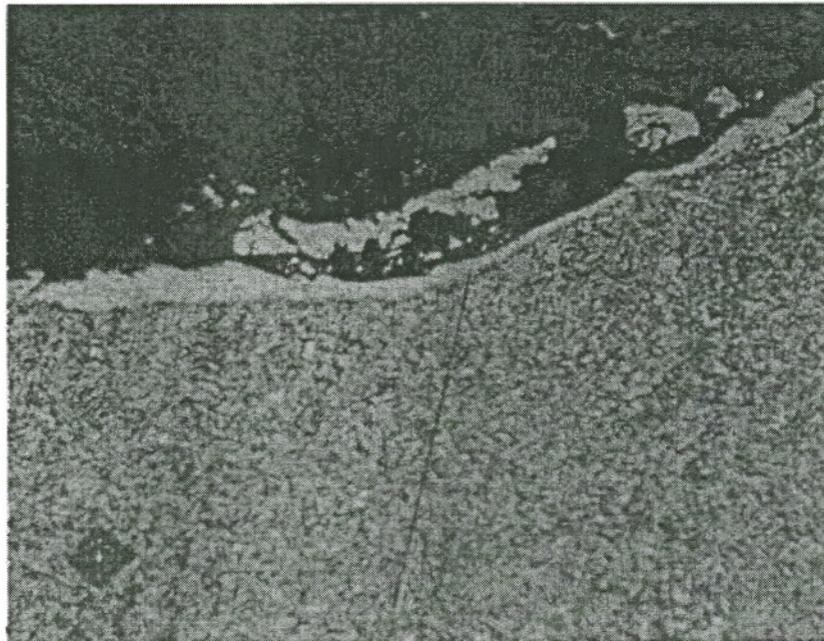


Figure S2A.7.4: Optical Cross Section Image of Etched Laser Engrave Cell (~500X)

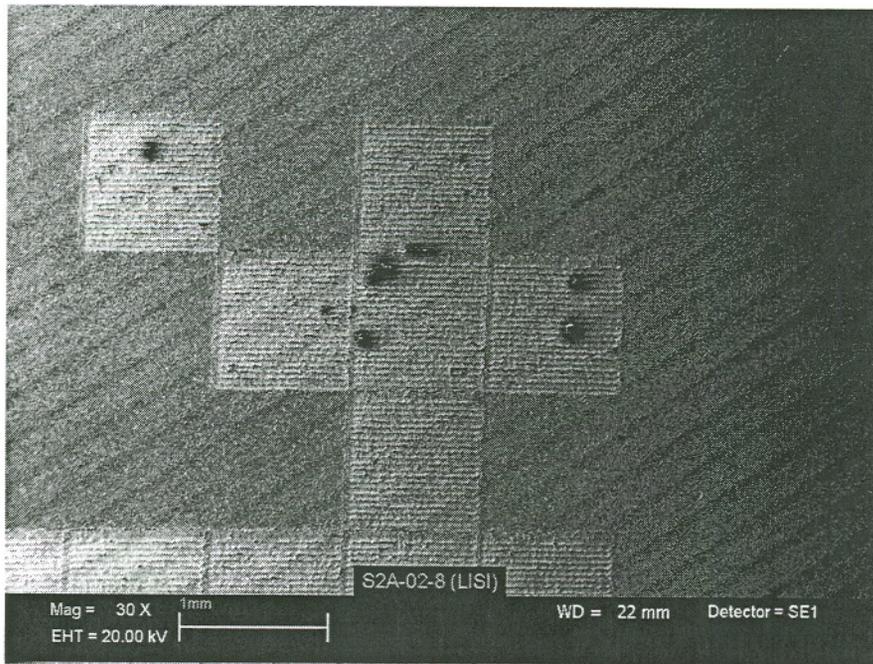


Figure S2A.8.1: SEM Surface Image of LISI Cells (~30X)

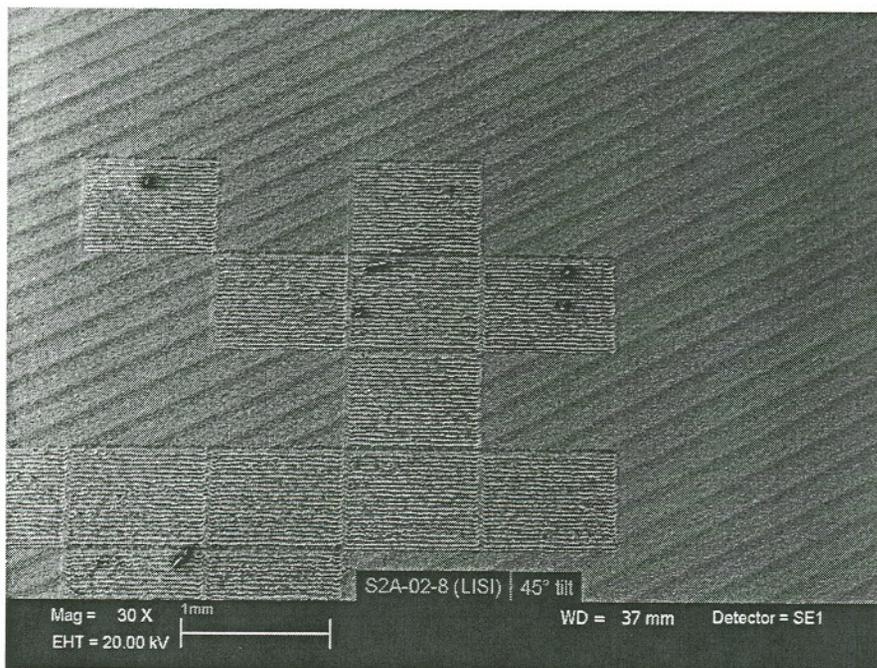


Figure S2A.8.2: SEM Surface Image of LISI Cells at 45° Tilt (~30X)

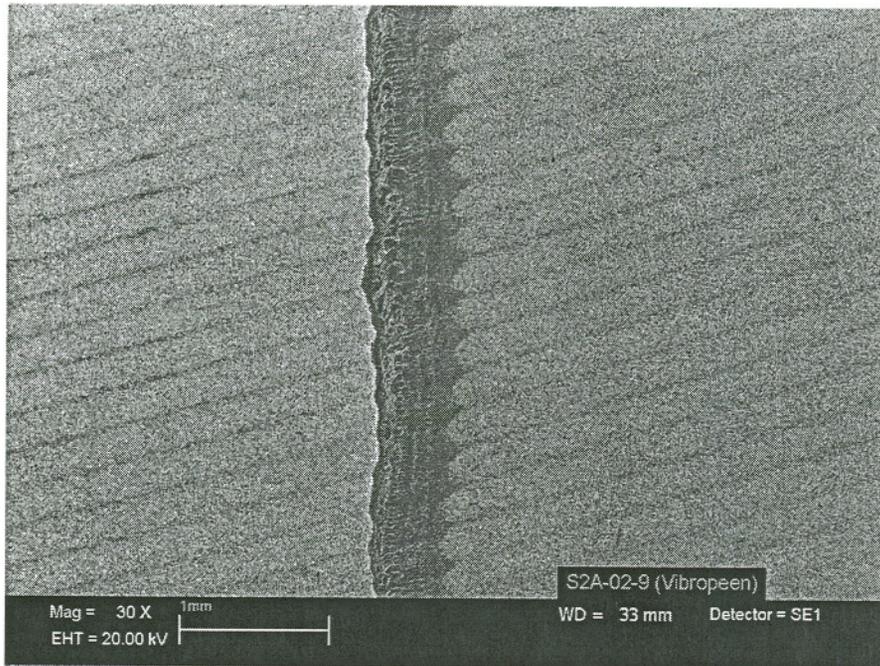


Figure S2A.9.1: SEM Surface Image of Vibropeen Mark (~30X)

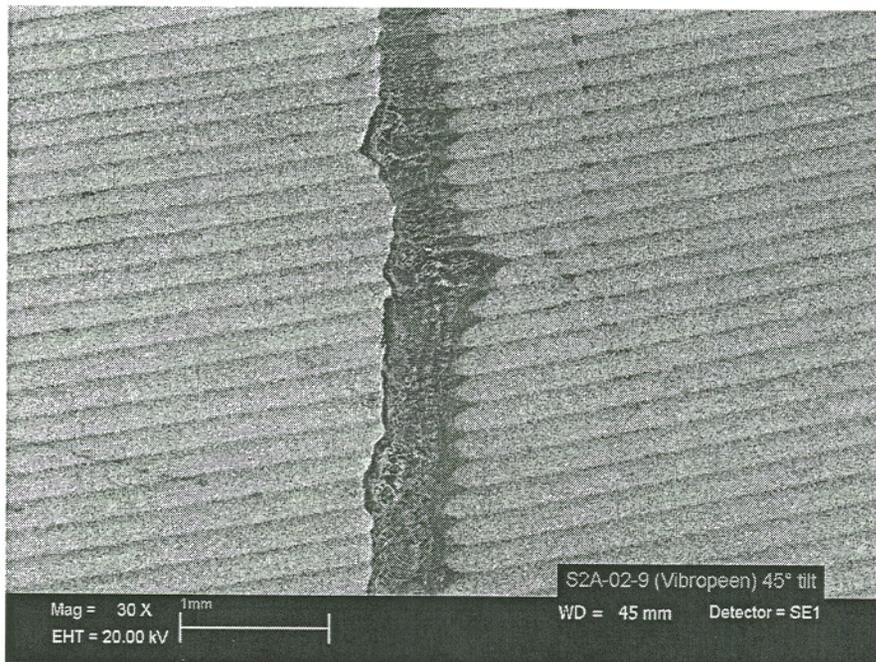


Figure S2A.9.2: SEM Surface Image of Vibropeen Mark at 45° Tilt (~30X)

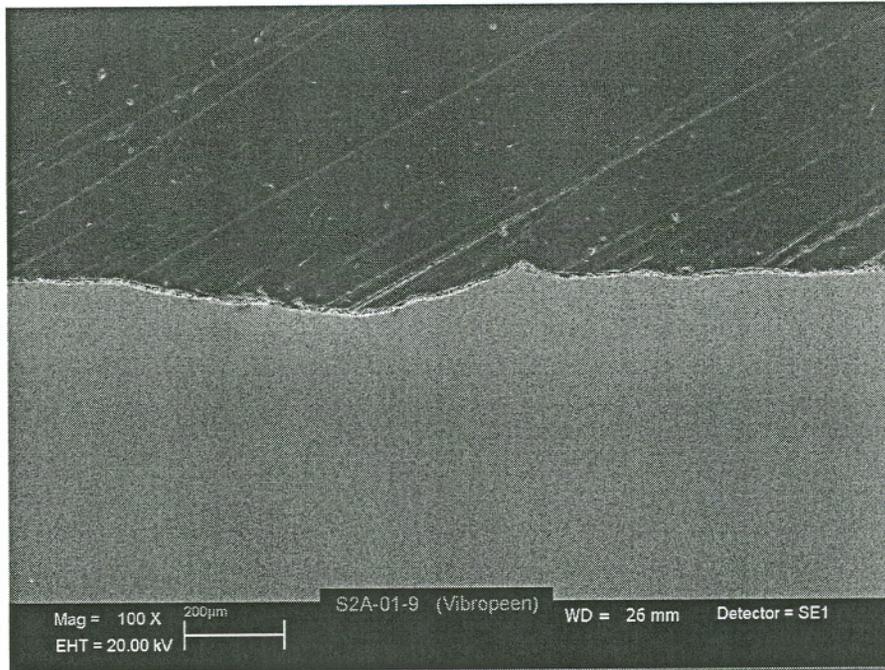


Figure S2A.9.3: SEM Cross Section Image of Vibropeen Mark (~100X)



Figure S2A.9.4: Optical Cross Section Image of Etched Vibropeen Mark (~500X)

S2B COUPON

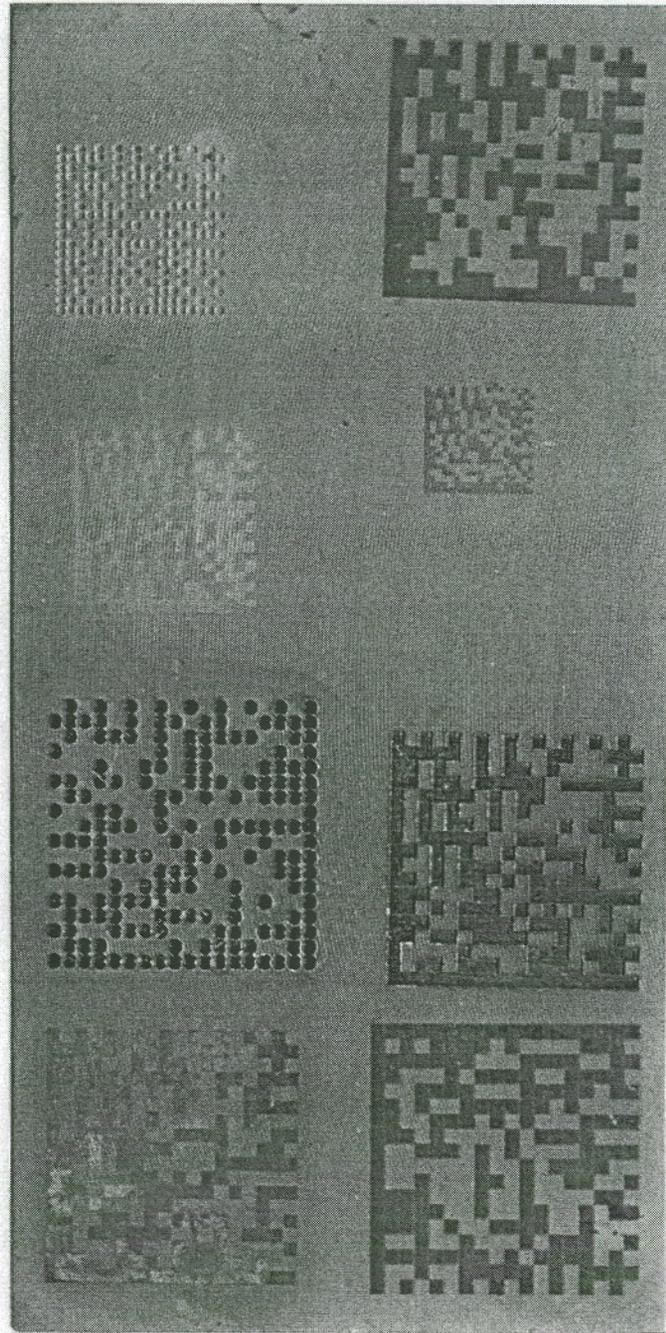


Figure S2B.0: Optical Image of Coupon S2B (~2X)

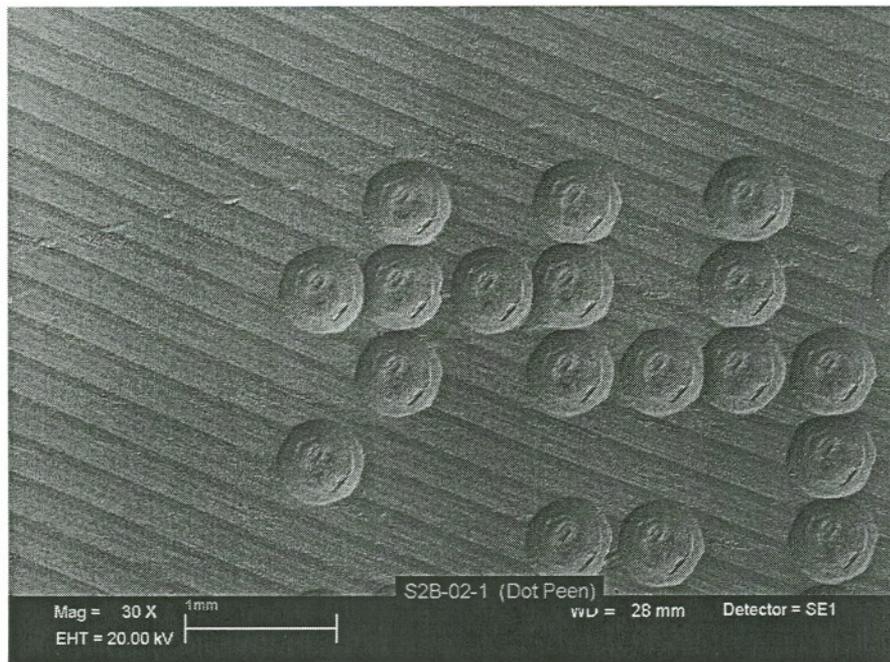


Figure S2B.1.1: SEM Surface Image of Dot Peen Cells (~30X)

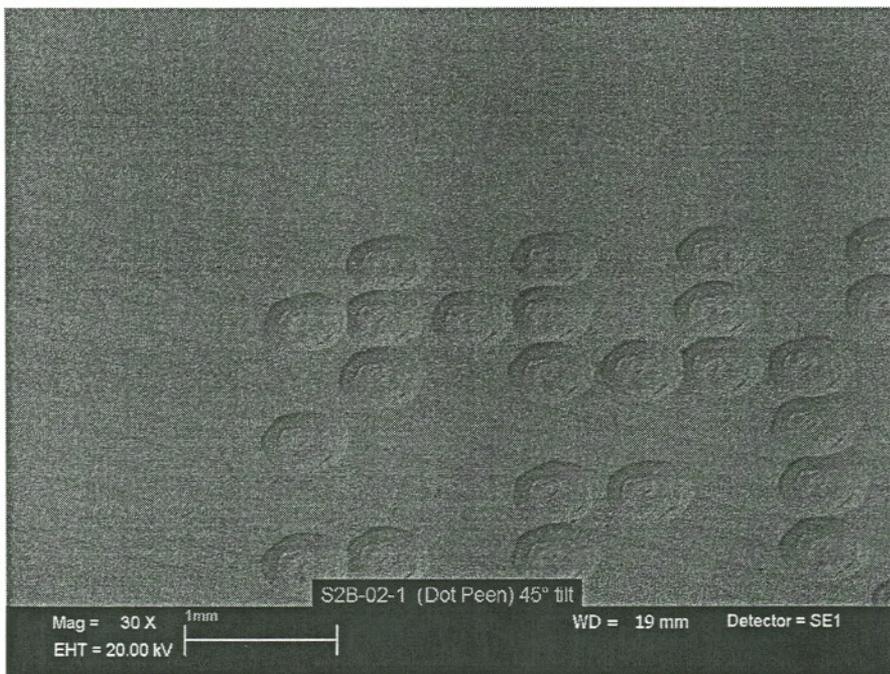


Figure S2B.1.2: SEM Surface Image of Dot Peen Cells at 45° Tilt (~30X)

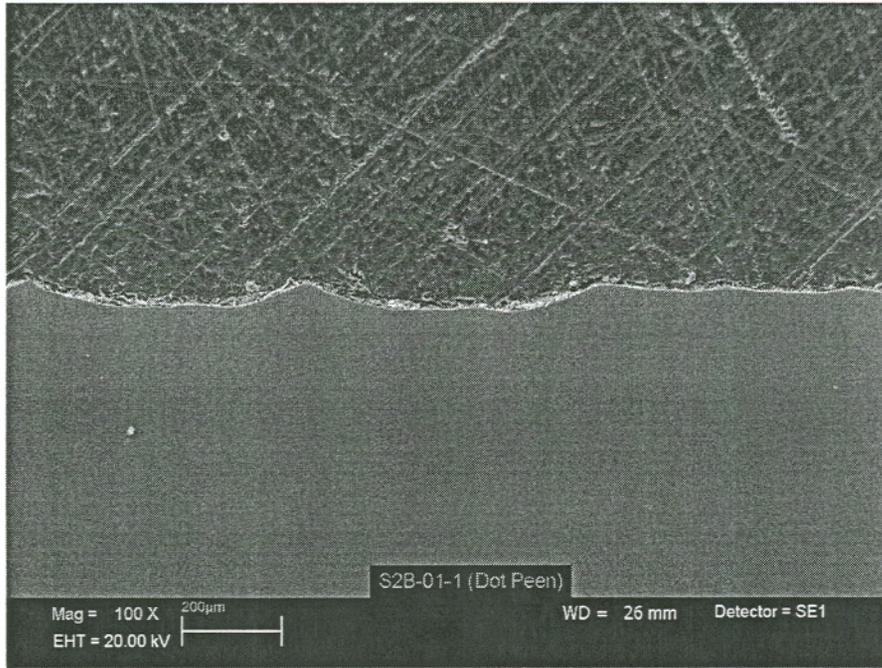


Figure S2B.1.3. SEM Cross Section Image of Dot Peen Cells (~100X)

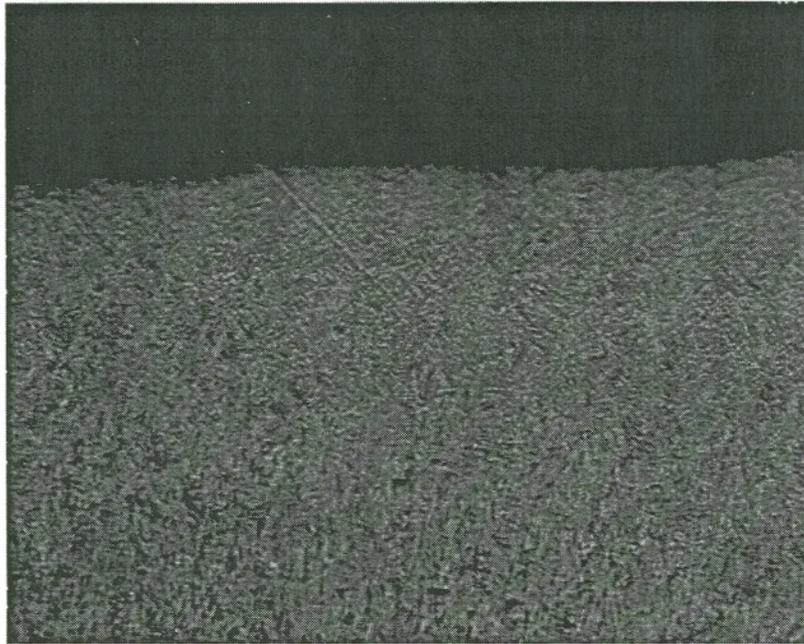


Figure S2B.1.4. Optical Cross Section Image of Etched Dot Peen Cell (~500X)

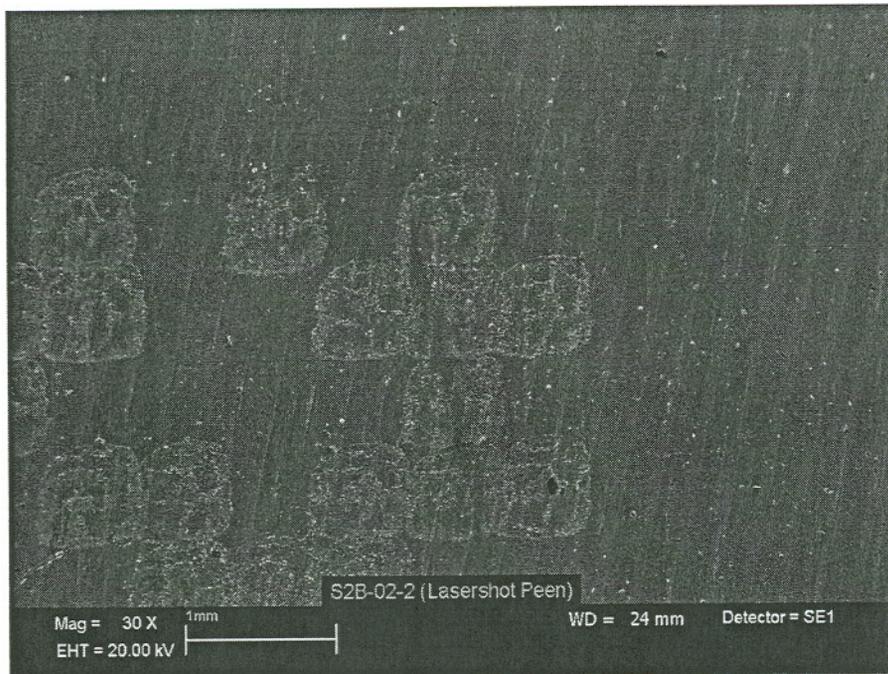


Figure S2B.2.1: SEM Surface Image of Lasershot™ Peen Cells (~30X)

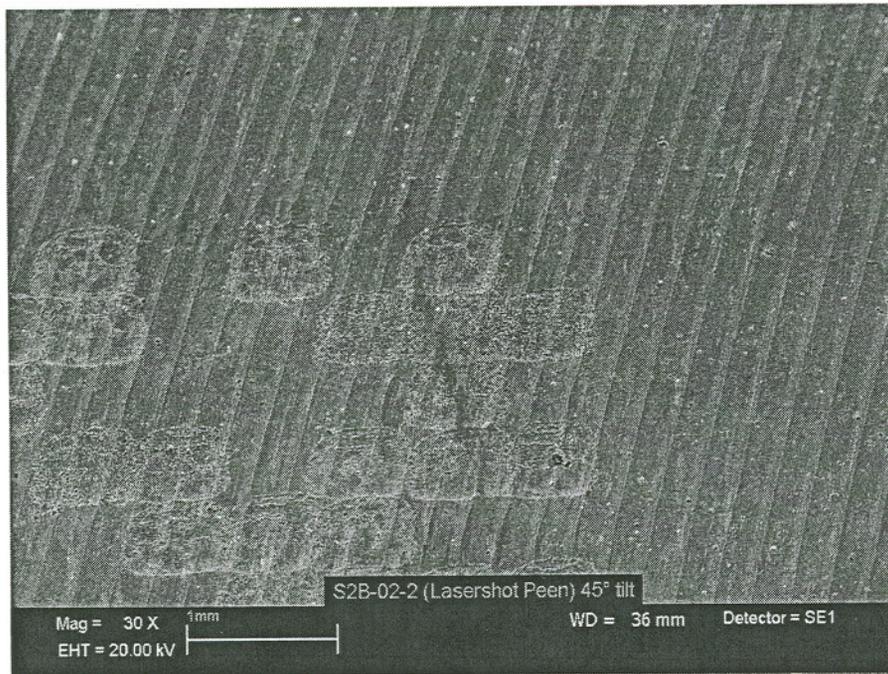


Figure S2B.2.2: SEM Surface Image of Lasershot™ Peen Cells at 45° Tilt (~30X)

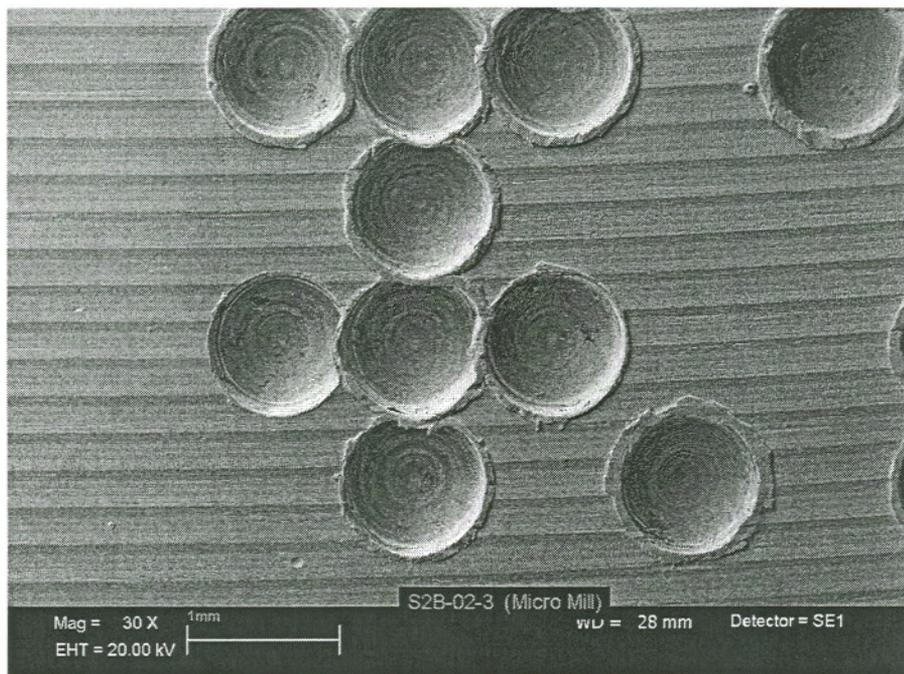


Figure S2B.3.1: SEM Surface Image of Micro-Mill Cells (~30X)

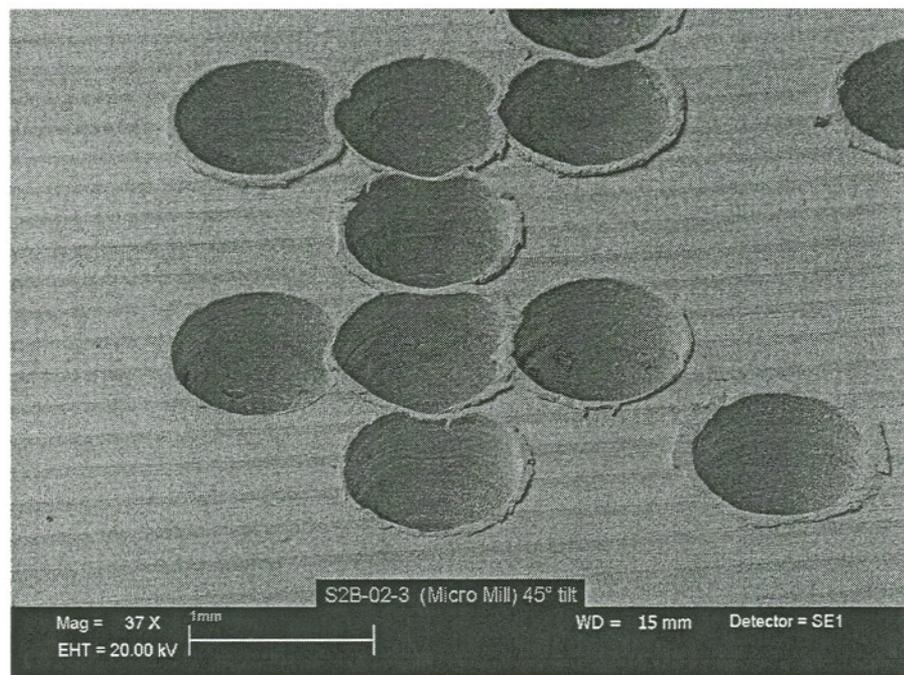


Figure S2B.3.2: SEM Surface Image of Micro-Mill Cells at 45° Tilt (~30X)

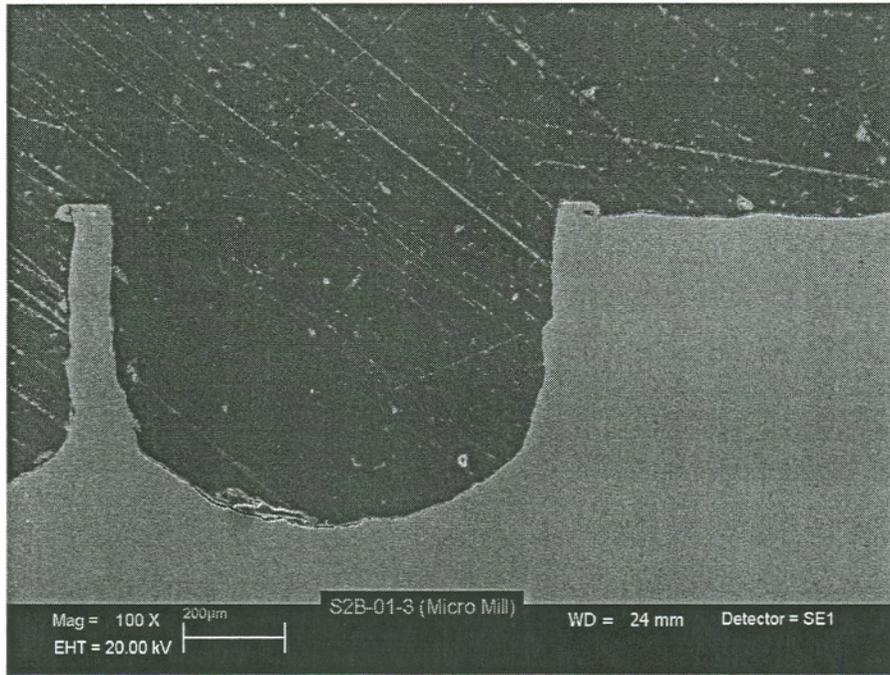


Figure S2B.3.3: SEM Cross Section Image of Micro-Mill Cells (~100X)

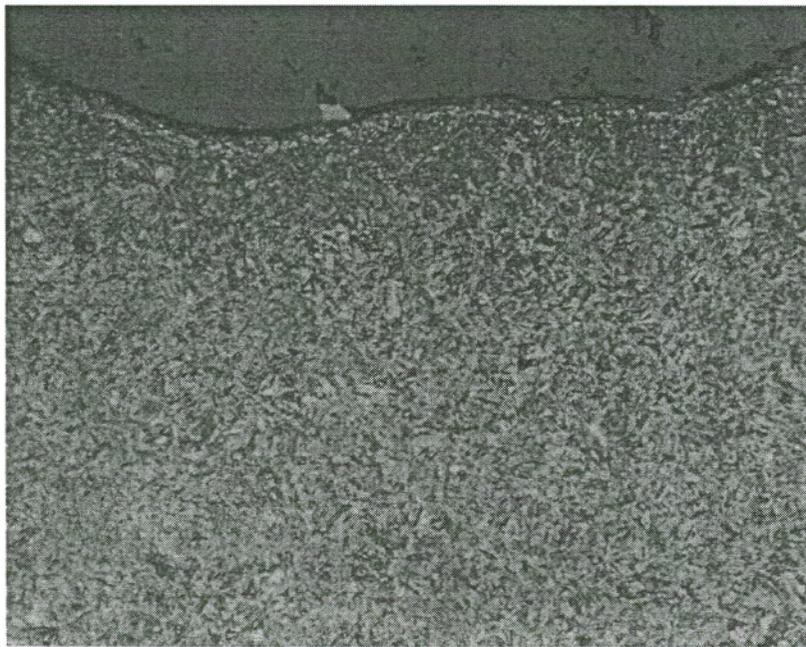


Figure S2B.3.4: Optical Cross Section Image of Etched Micro-Mill Cell (~500X)

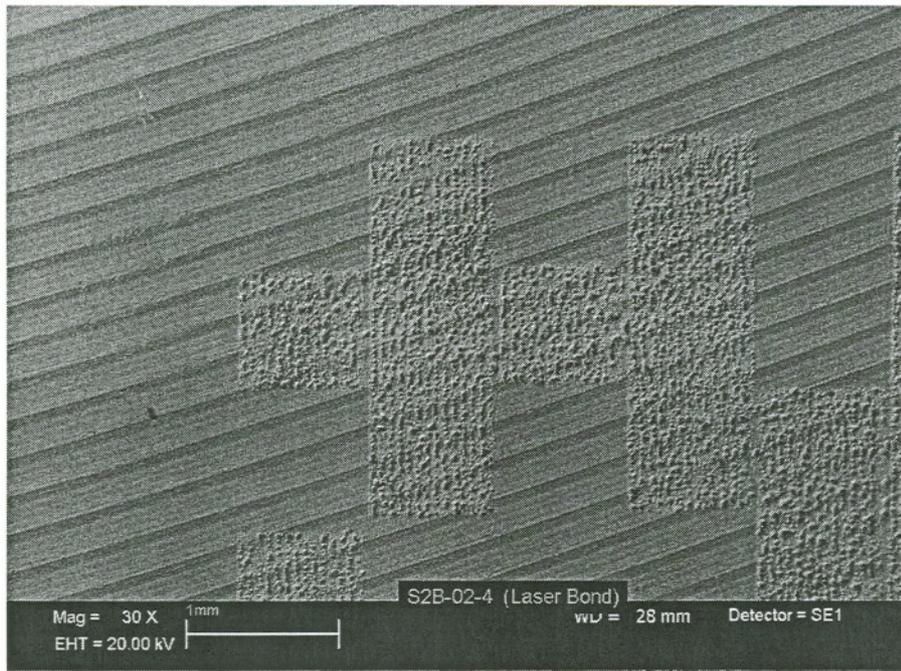


Figure S2B.4.1: SEM Surface Image of Laser Bond Cells (~30X)

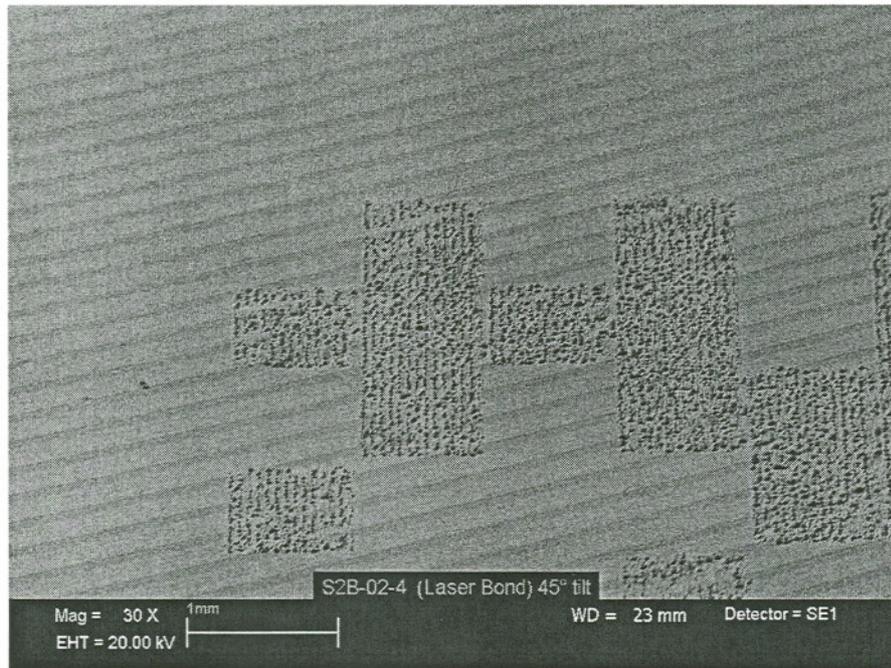


Figure S2B.4.2: SEM Surface Image of Laser Bond Cells at 45° Tilt (~30X)

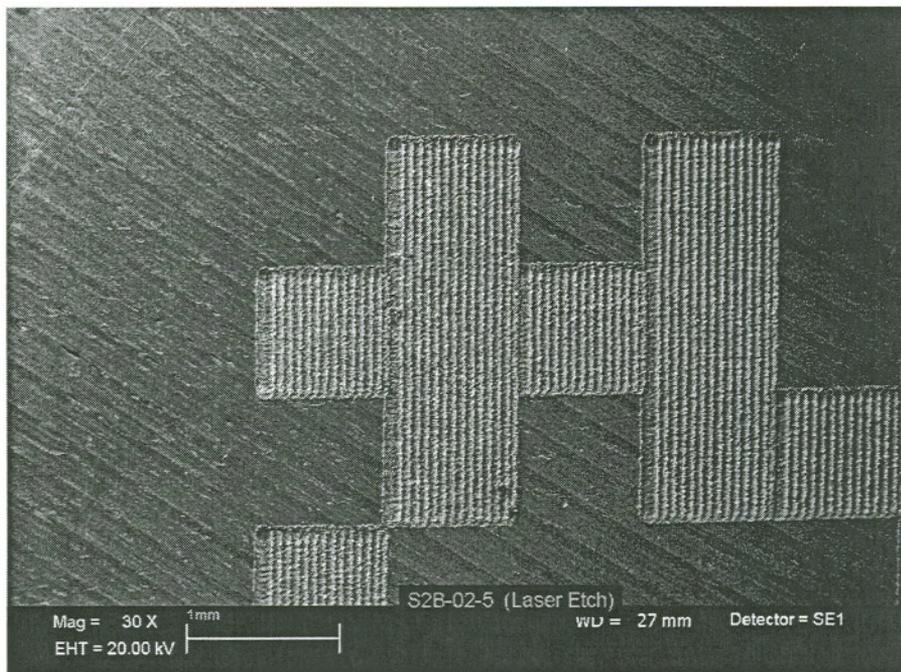


Figure S2B.5.1: SEM Surface Image of Laser Etch Cells (~30X)

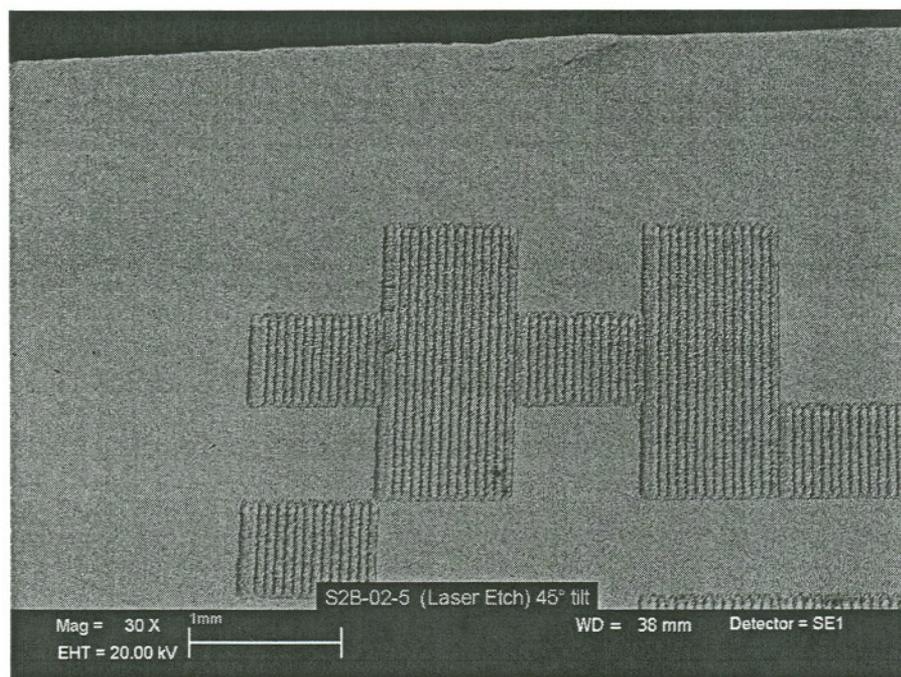


Figure S2B.5.2: SEM Surface Image of Laser Etch Cells at 45° Tilt (~30X)

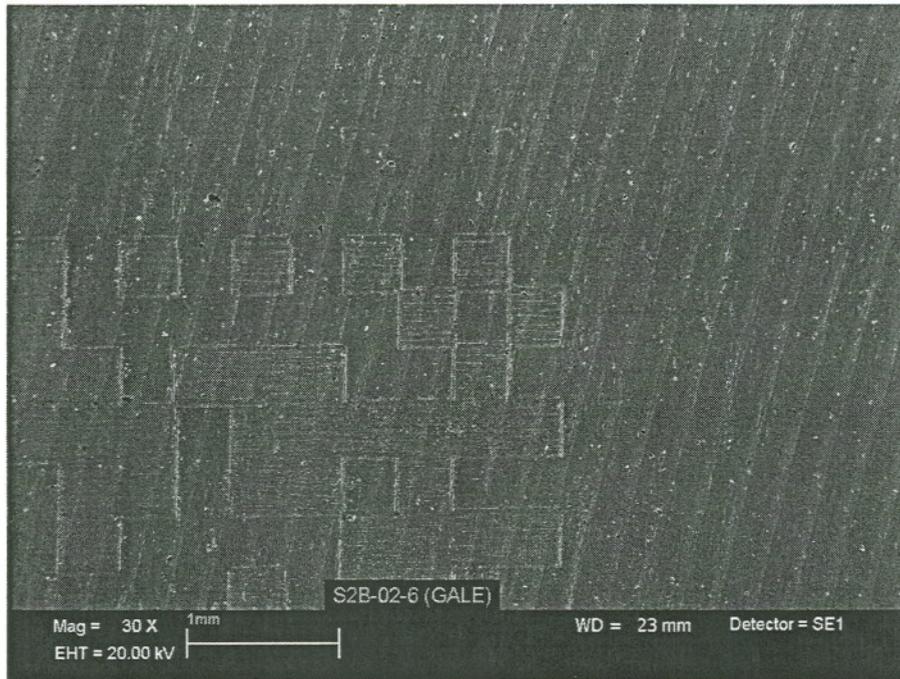


Figure S2B.6.1: SEM Surface Image of GALE Cells (~30X)

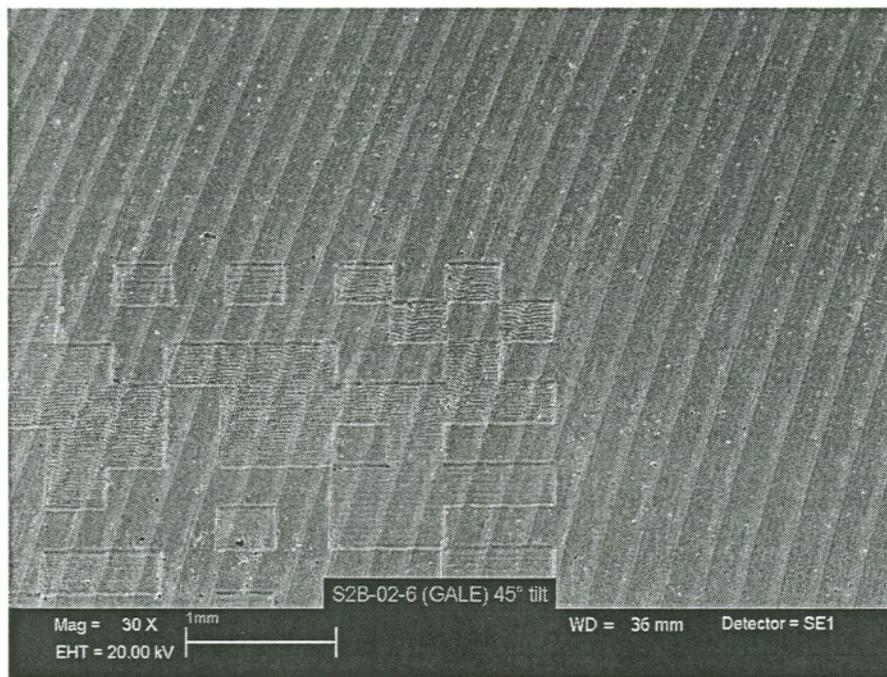


Figure S2B.6.2: SEM Surface Image of GALE Cells at 45° Tilt (~30X)

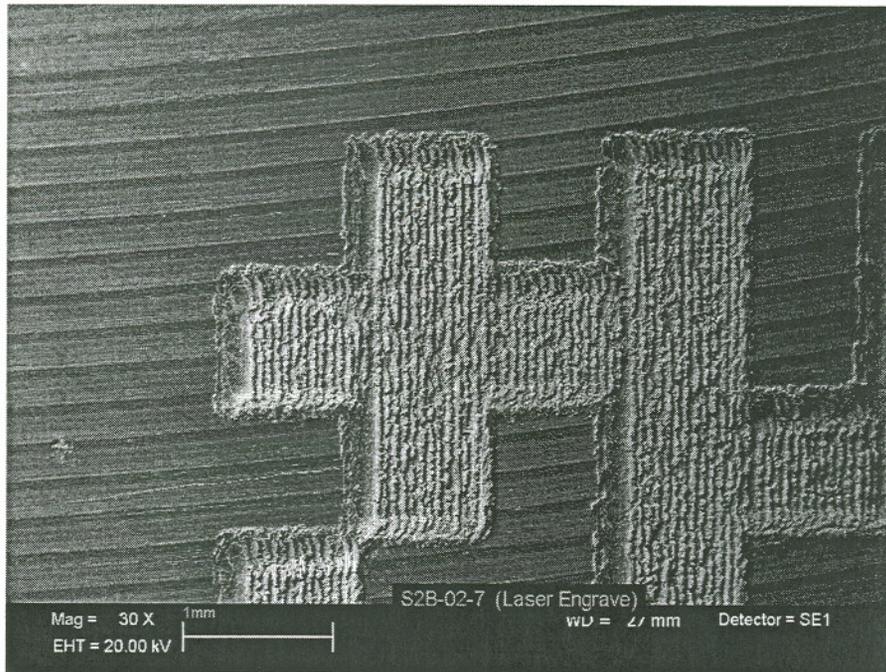


Figure S2B.7.1: SEM Surface Image of Laser Engrave Cells (~30X)

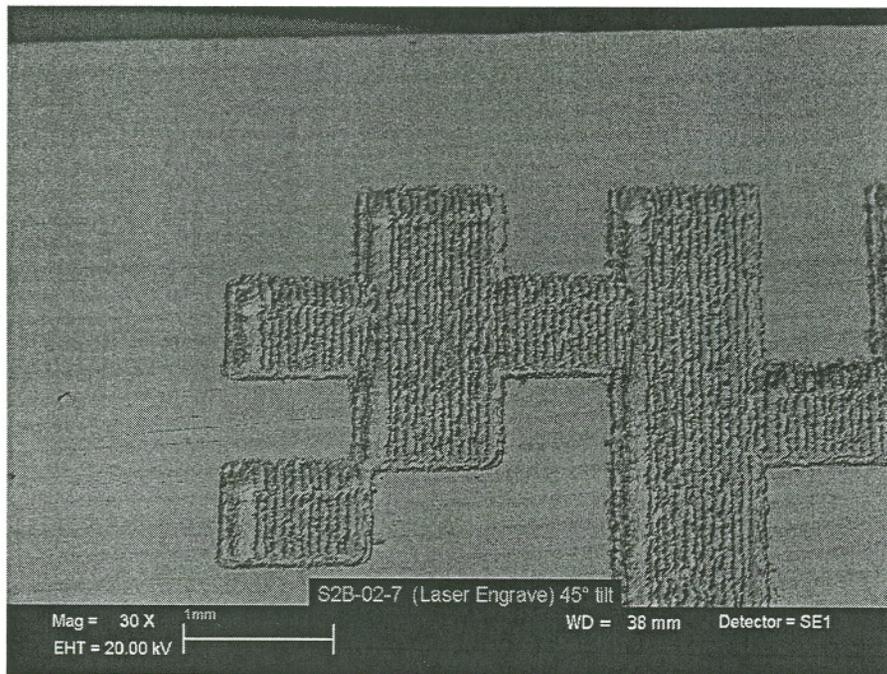


Figure S2B.7.2: SEM Surface Image of Laser Engrave Cells at 45° Tilt (~30X)

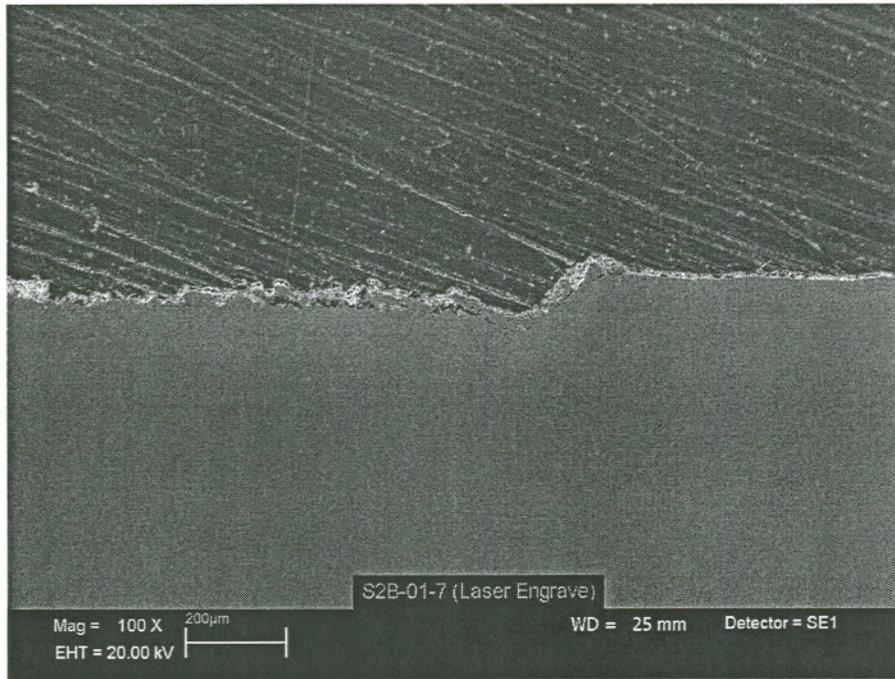


Figure S2B.7.3: SEM Cross Section Image of Laser Engrave Cells (~100X)

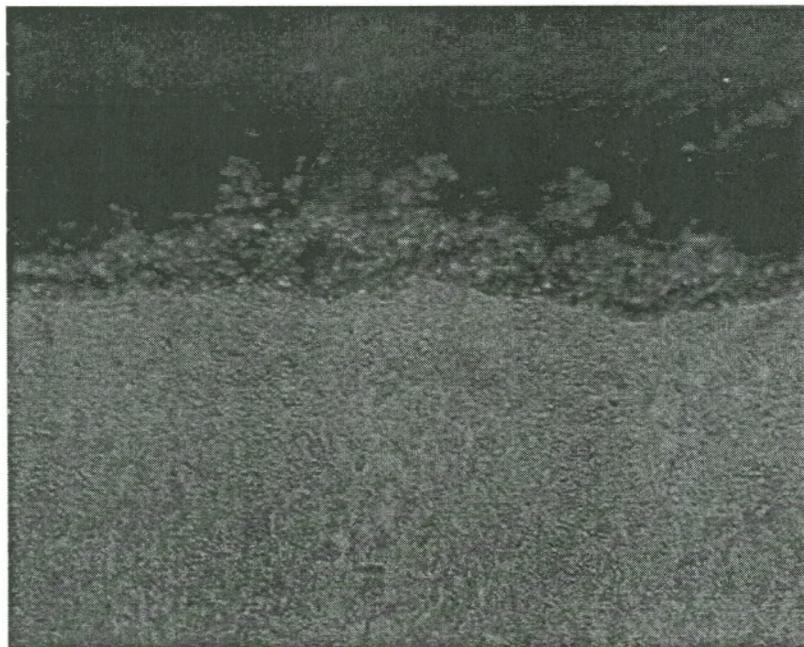


Figure S2B.7.4: Optical Cross Section Image of Etched Laser Engrave Cell (~500X)

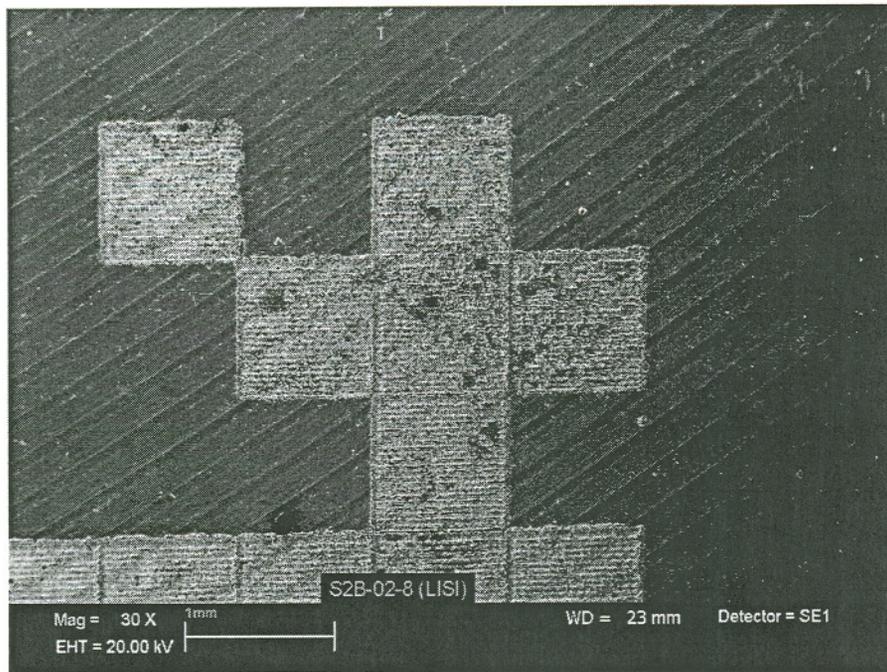


Figure S2B.8.1: SEM Surface Image of LISI Cells (~30X)

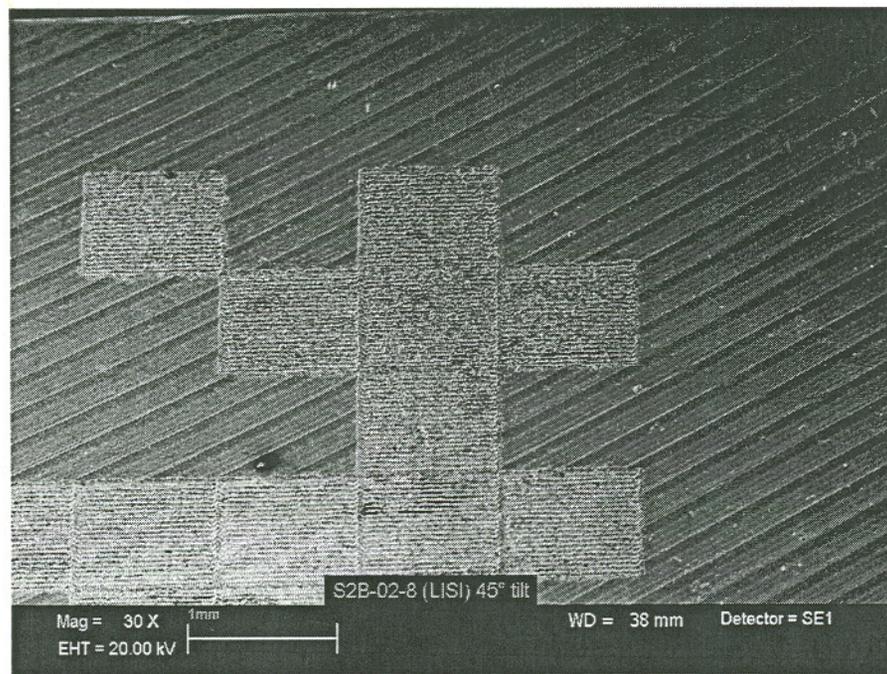


Figure S2B.8.2: SEM Surface Image of LISI Cells at 45° Tilt (~30X)

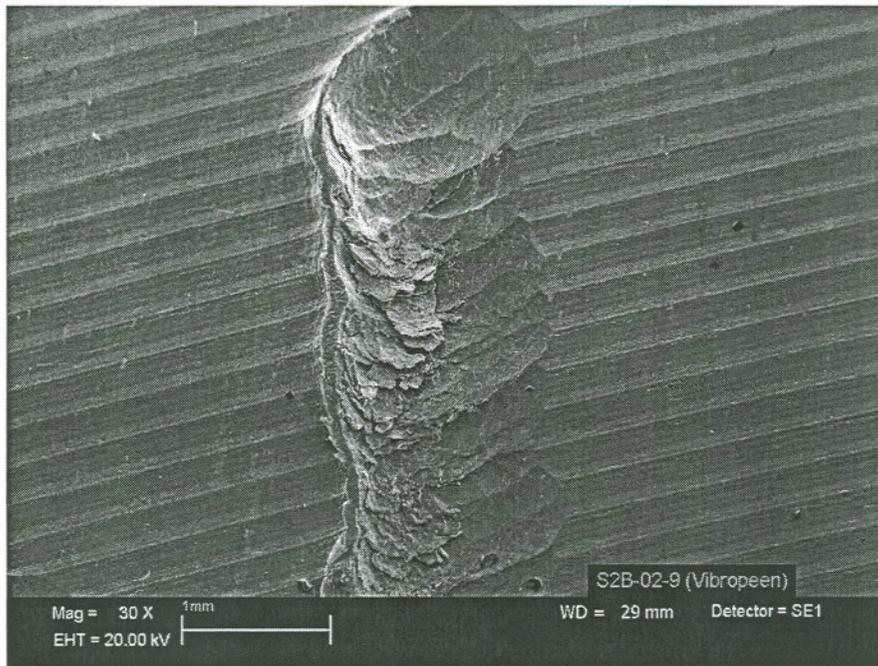


Figure S2B.9.1: SEM Surface Image of Vibropeen Mark (~30X)

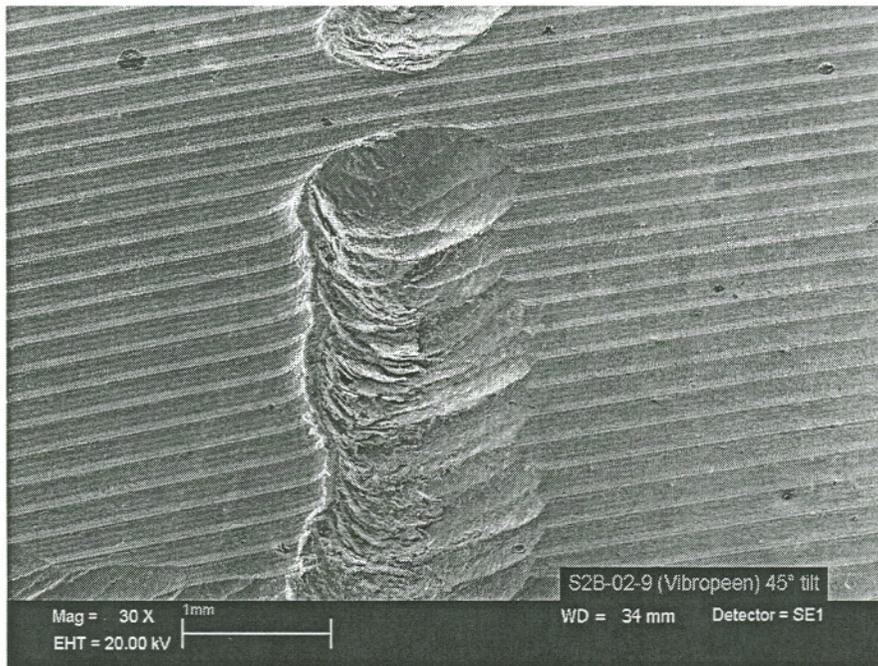


Figure S2B.9.2: SEM Surface Image of Vibropeen Mark at 45° Tilt (~30X)