Wafer Specifications

Parameter	2” S-doped InP Wafer
Material	VGF InP Single Crystal Wafer
Grade	Epi-Ready
Dopant	S
Conduction Type	S-C-N
Wafer Diameter (mm)	50.8±0.4
Orientation	(100)±0.5º
OF Flat / Length (mm)	EJ (0-1-1) / 17±1
IF Flat / Length (mm)	EJ (0-1 1) / 7±1
Carrier Conc. (cm^{-3})	(1 ~ 6) E18
Resistivity (Ωcm)	8 ~15 E-4
Mobility (cm^2/Vs)	1300~1800
Average EPD (cm^{-2})	≤ 500
Thickness (µm)	475 ±15
TTV/TIR (µm)	≤15
Bow (µm)	≤15
Wrap (µm)	≤15
Particle Count	N/A
Surface	Front side: Polished, Back side: Etched
Packaging	Wafer fastened by a spider in an individual tray and sealed with N2 in a static shielding bag. Packing done in a class 100 clean room.

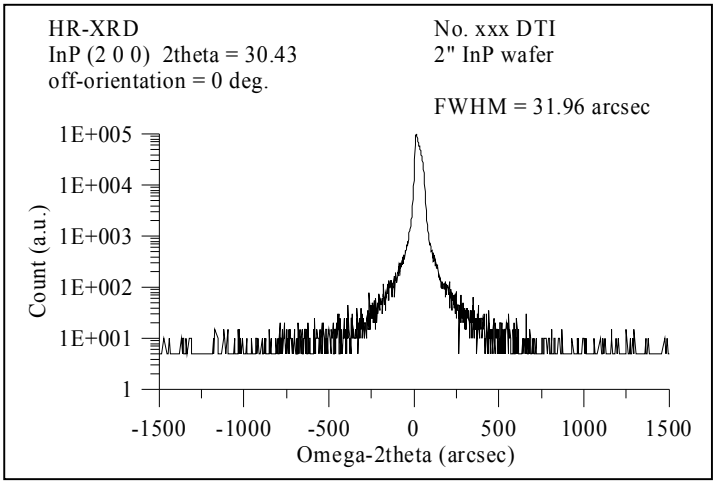
InP Wafer Analysis

1. HR-XRD

Analysis equipment: Bede D1 System

Bede Scientific Instruments Limited

Sample: 2” InP wafer

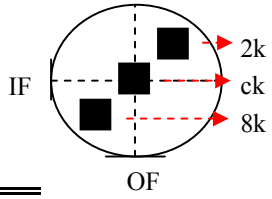


2. Hall measurement

Analysis equipment: HL5500PC Hall system, Accent Optical Technologies Inc.

Sample: Van der Pauw sample in square 10x10 mm^2

Analysis locations: labeled as 2k, ck and 8k.



Hall measurement	2k	ck	8k	Avg.
Resistivity				
Sheet (ohm/sq)	0.01763	0.01675	0.01767	0.01735
Bulk (ohm-cm)	8.408E-04	7.990E-04	8.427E-04	8.275E-04
Hall				
Mobility (cm^2/V-s)	1.37E+03	1.34E+03	1.35E+03	1353
Concentration				
Sheet (cm^{-2})	-2.58E+17	-2.78E+16	-2.63E+17	-1.83E+17
Bulk (cm^{-3})	-5.41E+18	-5.84E+18	-5.51E+18	-5.59E+18

3. EPD

Analysis locations	2k	ck	8k	Avg.
EPD (cm^{-2})	224	240	244	236

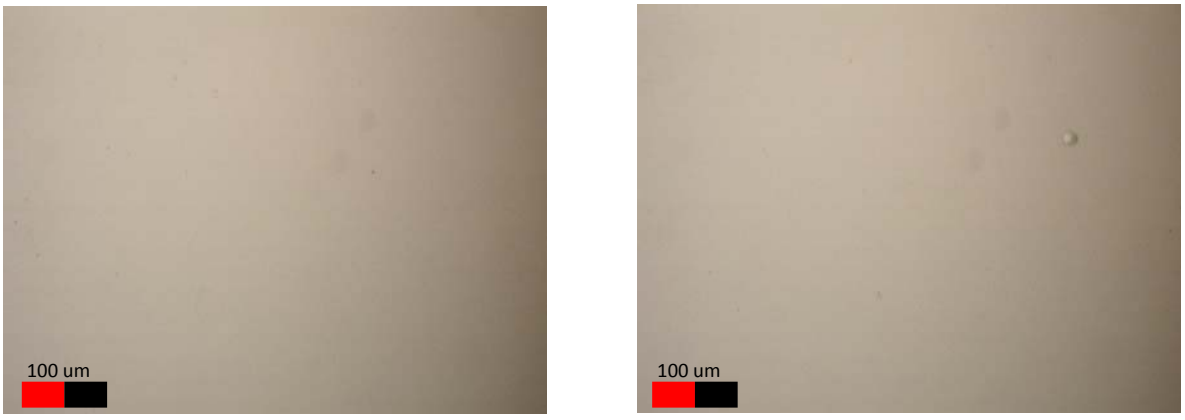


Fig. InP wafer surface morphology after EPD process. (x200)