

Request for Quote and Specifications of gallium oxide (Ga_2O_3) epi-wafer

- Bids are sought from qualified **Indian vendors under domestic tender** for gallium oxide (Ga_2O_3) epi-wafers on Ga_2O_3 substrate with the specifications mentioned in the table below.
- Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
- The quotations should be on FOR-IISc Bangalore basis in INR only.
- Companies need to submit two bids, a technical bid and a commercial bid, in **two separate** sealed envelopes. The bids should be submitted no later than 21 days from the date of posting of this tender and by 5 pm on the 21st day or next weekday in case the 21st day falls on a weekend.
- Deviations from the technical specifications requested are allowed. Such deviations must be highlighted and justified. Their acceptance or rejection will be left to the discretion of the technical committee.
- The wafers sought will be used toward academic research at the Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc). IISc is India's No. 1 academic institution on higher learning and the Center for Nano Science and Engineering is home to one of the best academic fabs in the world.
- The technical response, corresponding to the wafers being offered, should be in the form of a compliance table with at least 5 columns. Serial number in column 1. Each of the numbered technical items below should be addressed in a separate row of the table in column 2. Compliance to this requirement, in Yes/No, deviation from it and justification should be provided in the neighboring columns 3-5. Post the opening of a hard copy of the technical bid the committee will request for a soft copy of the files for further processing. Companies should **NOT** mail soft copies of the files unless specifically requested for.
- Detailed technical specifications of the wafer being offered should be included.

Bids should be sent to Prof. Digbijoy N Nath, CeNSE, IISc, Bangalore, 560012. Direct all questions concerning this acquisition at digbijoy@iisc.ac.in

1.	Primary description	Epitaxial β -Ga ₂ O ₃ wafer on β -Ga ₂ O ₃ substrate
2.	Number of wafers required	1 (One)
Specs of the β-Ga₂O₃ substrate on which the epi-stack is realized		
3.	Size	2 inch (~ 50 mm) in diameter
4.	Phase/polymorph	β
5.	Doping	Must be $> 10^{19} \text{ cm}^{-3}$
6.	Dopant	n-type, either Sn or Si dopant, Activated
7.	Orientation	(001)
8.	XRD FWHM	< 400 arcsec
9.	Thickness	$> 500 \mu\text{m}$
10.	Offset angle	$\pm 1^\circ$
Specs of the epi-layers of β-Ga₂O₃		
11.	Thickness	Must be between 6 to 7 μm
12.	Dopant type	n-type, Silicon
13.	Doping concentration	\sim between 3 to 4 $\times 10^{16} \text{ cm}^{-3}$, activated
Common Terms and Conditions		
14.	The wafer must be pre-diced into 1 cm x 1 cm sizes	
15.	Shipping: The cost of shipping up to IISc should be included.	