

Al-Daffaie, Shihab

From: Christophe Coinon <christophe.coinon@iemn.univ-lille1.fr>
Sent: 07 October 2016 11:44
To: Al-Daffaie, Shihab
Cc: PEYTAVIT Emilien
Subject: Re: Fw: LT-GaAs wafers

Dear Shihab,

- 1- It's 1000 € per wafer, so 4000 € for the 4 structures.
- 2- The max size is 2 inches.
- 3- OK for SSP wafers for structures N°3 and 4. For the last sample, can you confirm the dopant type. I think it's N type, but it's better if I'm sure !
- 4- I think I can deliver in week 45.

For the quotation, it's a little bit complicated, but I can make the structures before administrative procedures are completed. The first step for received a quotation is to complete a new project on this website :

<https://www.renatech.org/projet/index/fr>

- 1) create an account
- 2) enter your Project request selecting IEMN as a fabrication center

After complete the request, you will received the quotation.

I wish you a good week-end !

Best regards,

Christophe Coinon

IEMN - CNRS UMR 8520

Avenue Poincaré

CS 60069

BP 59652 Villeneuve d'Ascq Cedex

FRANCE

Le 06/10/2016 à 16:06, Al-Daffaie, Shihab a écrit :

Dear Christophe and Emilien,

Thank you very much for your quick replies.

Yes! It seems okay for me, but only I want you to confirm the following:

- 1- 1000 € is per wafer or each wafer has different price?
- 2- The max wafer size that you can growth?
- 3- We prefer for only wafer 3 and 4 single side polished.
- 4- The estimated delivery time?

Please send me an official quotation to make the order directly ASAP.

Best regards,
Shihab

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From: Christophe Coinon [<mailto:christophe.coinon@iemn.univ-lille1.fr>]
Sent: 06 October 2016 15:36
To: Al-Daffaie, Shihab
Cc: Emilien Peytavit
Subject: Re: Fw: LT-GaAs wafers

Dear Shihab,

I'm Christophe Coinon, responsible of the "growth and characterisation on III-V materials" in the micro and nano-fab center at IEMN. Emilien followed me your mail and talking me about your discussion of the growth of LT-GaAs and others.

Our growth systems permit to make only one wafer at the once. So the price for each epitaxial growth is the same when you order one or several.

We provide wafers GaAs SI and InP SI.

For the first and second structure, I propose to use double side polished GaAs SI wafers, 390 μm thickness.

For the third structure, I can use the same DSP GaAs SI wafer, or a single side polished GaAs SI wafer, 450 μm thickness, as you want ...

For the fourth structure, I use a single side polished InP SI wafer, 350 μm thickness.

The price is 1000 € per epitaxial layer.

Is that right for you ?

If you want more details, do not hesitate to contact me or Emilien.

Best regards,

Christophe Coinon
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Le 05/10/2016 à 14:48, Emilien Peytavit a écrit :

From: [Al-Daffaie, Shihab](#)
Sent: Wednesday, October 05, 2016 8:55 AM
To: emilien.peytavit@iemn.univ-lille1.fr
Subject: LT-GaAs wafers

Dear Emilien,

It was very nice to take to you in Copenhagen and I hope you had enough rest to start again.

As we discussed I will send you what exactly my need of wafers, but at any case if have already any very good LT-GaAs with very short carrier life time please send me directly the quotation.

Here below you will see four different wafer structure, the most important are the LT-GaAs wafers, please send me a quotation for all of them if possible with more information about carrier life time. Please also send the prices difference if we order one or more from each wafer.

Please consider the S.i. GaAs and S.i. InP will be provide from you.

Wafer (1)

1 μm LT-GaAs MBE layer

1 μm $5 \times 10^{18} \text{ cm}^{-3}$ GaAs Si-doped

~ 300 μm S.i. GaAs

Wafer (2)

1 μm LT-GaAs MBE layer

~ 300 μm S.i. GaAs

Wafer (3)

100 nm 1×10^{18} GaAs

1 μm $>5 \times 10^{18} \text{ cm}^{-3}$ n⁺ GaAs

~ 300 μm S.i. GaAs

Wafer (4)

100 nm $1 \times 10^{18} \text{ cm}^{-3}$ InGaAs

1 μm $> 5 \times 10^{18} \text{ cm}^{-3}$ InP

$\sim 300 \mu\text{m}$ S.i. InP

Best regards,
Shihab

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