



A 7 slide preview.... more soon

**Some aspects
of group III nitride technology**

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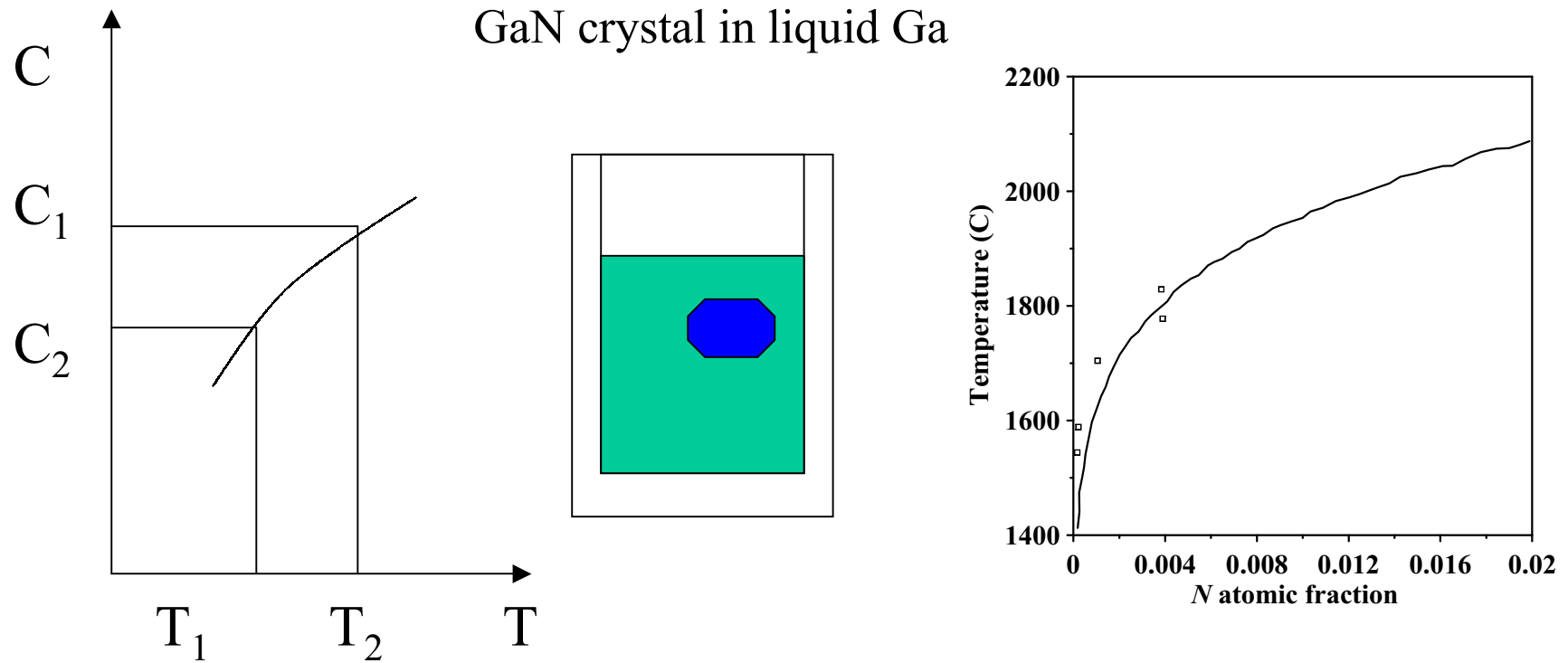


Content

- Liquid phase epitaxy of GaN
- AlN-SiC alloys
- GaN growth by sublimation



Principals of liquid phase epitaxy

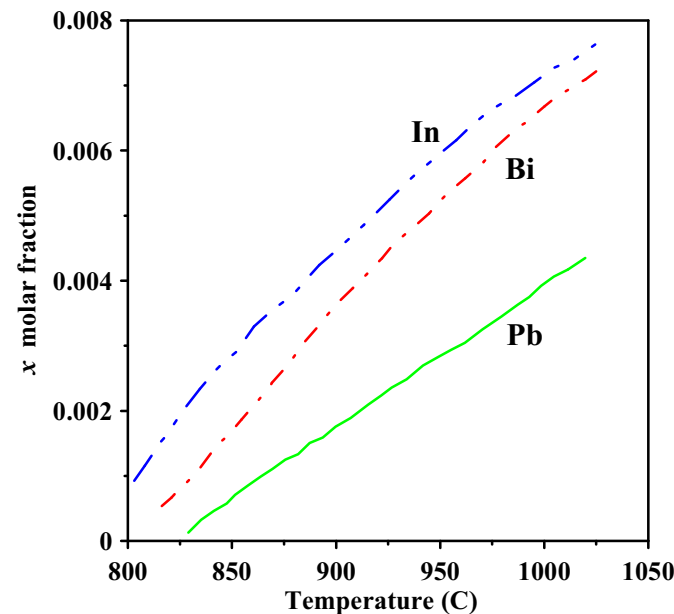


[I. Grzegory et al., 1993]



Some results obtained in Russia on GaN LPE more than 10 years ago

I. Pichugin and coworkers, Leningrad Electrotechnical Institute



[L. Marasina et al., 1985]

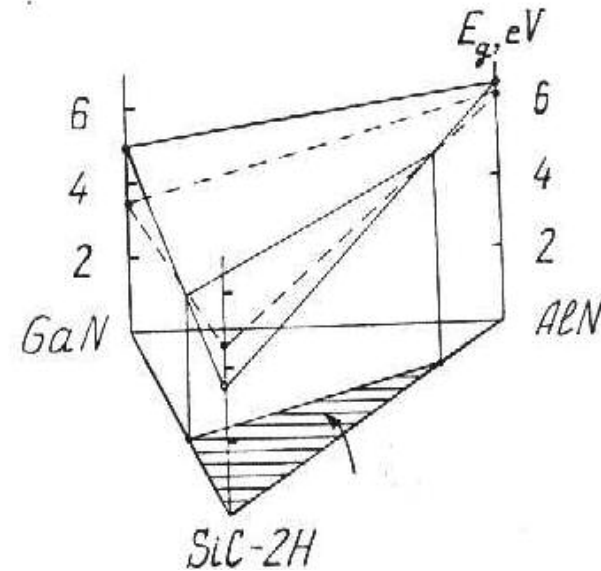
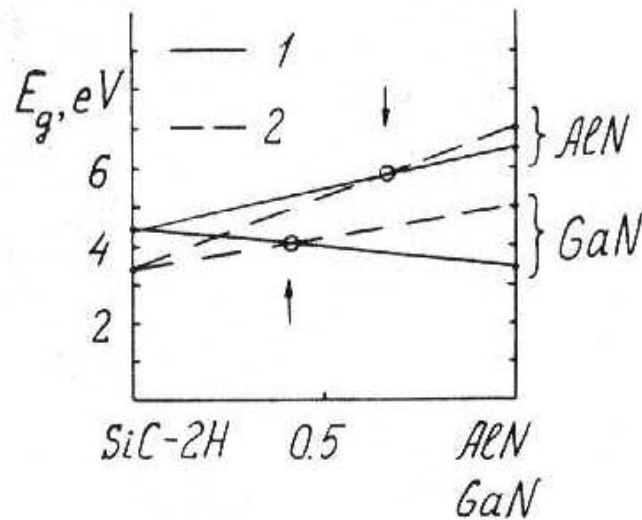
Single crystal GaN layers were grown from Ga-In-Bi melt at $\sim 1080^{\circ}\text{C}$. Growth rate was ~ 3 microns per hour

[I. Pichugin and M. Panek, 1982, I. Pichugin and L. Marasina, 1991].



AlN-SiC alloys Why?

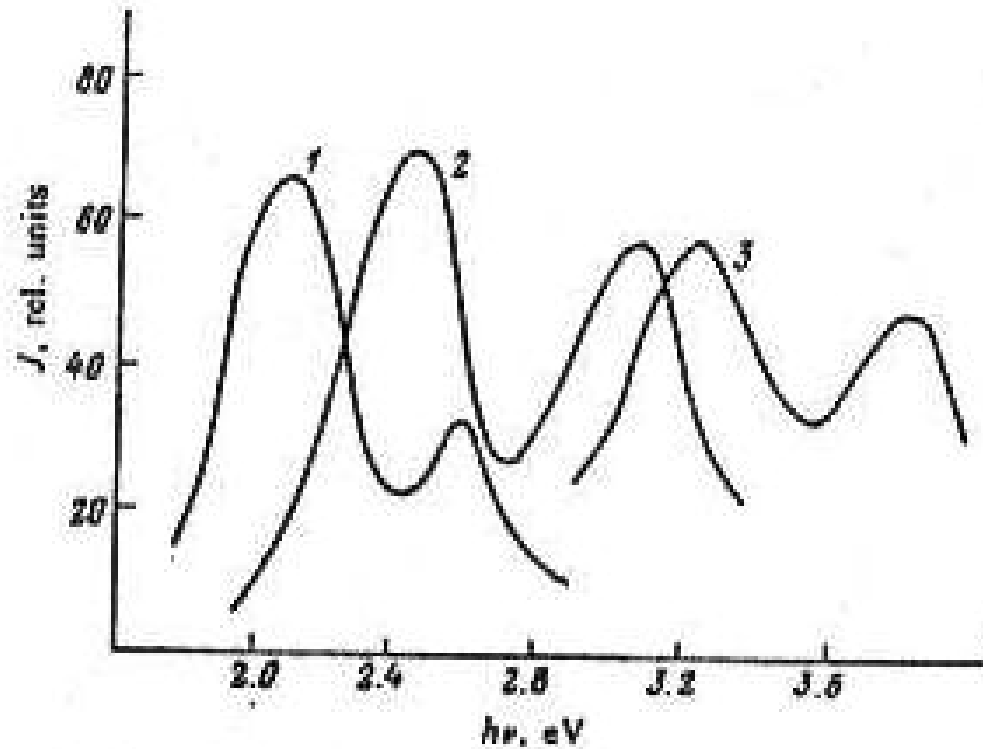
G. Safaraliev, Yu. Tairov, and V. Tsvetkov, Leningrad Electrotechnical Institute



[V. Dmitriev, 1992]



AlN-SiC alloys Interesting results

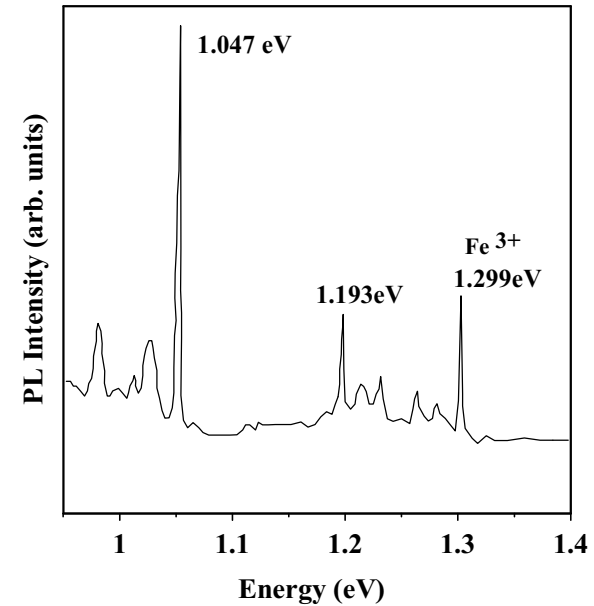
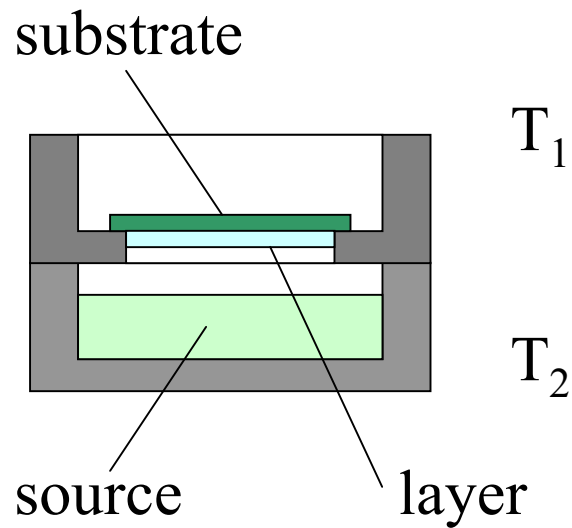


S. Nurmagedov et al., 1989; G. Safaraliev et al., 1991.



GaN growth by sublimation

Yu. Vodakov and coworkers, Ioffe Institute



Yu. Vodakov and E. Mokhov,
patent USA 4147572, 1979

C. Wetzel et al., ,
Appl. Phys. Lett. 65 (1994) 1033