

For processes that have little sensitivity to moisture:

- d) Store in an extension of a diffusion tube or "elephant" that is capped and continuously purged with dry nitrogen at room temperature. This technique is normally considered to be the minimum care that one should take when storing a diffusion boat and sources.
- e) Store the sources in a laminar-flow clean hood. Although this technique will keep the boat and sources clean, they will be continuously exposed to any moisture that is present in the room air. If this storage technique is selected, the process engineer should evaluate his product very carefully to insure that this method will not have adverse effects upon it.

Conclusion

The storage technique that is selected for a particular process must be determined by the process engineer. Experience has shown that careful consideration and selection of an appropriate storage procedure is a vital element in the successful application of planar sources to semiconductor fabrication.

For more information on this Product Bulletin or on the BoronPlus and PhosPlus dopant sources, contact the Planar Dopants Team: www.techneglas.com

References:

1. David Rupprecht and Joseph Stach, "Oxidized Boron Nitride Wafers as an In-Situ Boron Dopant for Silicon Diffusions", J. Electrochem Soc., Vol. 120, No. 9, Sept. 1973, pp. 1266-1271.

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