

## Current Status and Future Prospects of Ammonothermal Bulk GaN Growth

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This paper reviews the current status of ammonothermal GaN growth at SixPoint Materials, Inc., and discusses challenges in the commercialization of the technology. Small prototype bulk GaN crystals show a high-quality microstructure as well as improved transparency. The full width at half maximum of the X-ray rocking curves from 002 and 201 diffractions typically ranges from a few tens to a few hundred arcsec. The minimum optical absorption coefficient at 450 nm is currently  $4 \text{ cm}^{-1}$ . To commercialize this technology, expansion of the crystal size is essential. Future tasks include the development of a large reactor, the preparation of large seed crystals and the reduction of the number of cracks in crystals.

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