

SELECTED PUBLICATIONS ON N-POLAR ELECTRONIC DEVICES DEMONSTRATED AT UCSB

- [1] S. Wienecke, B. Romanczyk, M. Guidry, H. Li, E. Ahmadi, X. Zheng, K. Hestroffer, S. Keller, and U.K. Mishra,  
**“N-Polar GaN Cap MISHEMT with Record 6.7 W/mm at 94 GHz”**,  
74<sup>th</sup> Device Research Conf. (DRC), Newark, DE, USA, June 2016.
  
- [2] B. Romanczyk, M. Guidry, S. Wienecke, H. Li, E. Ahmadi, X. Zheng, S. Keller, and U. K. Mishra,  
**“Record 34.2% Efficient mm-Wave N-Polar AlGaIn/GaN MISHEMT at 87 GHz”**,  
Accepted for publication in Electronics Letters.
  
- [3] D. Denninghoff, J. Lu, E. Ahmadi, S. Keller, U.K. Mishra,  
**“N-polar GaN/InAlN/AlGaIn MIS-HEMTs with 1.89 S/mm extrinsic transconductance, 4 A/mm drain current, 204 GHz  $f_T$  and 405 GHz  $f_{max}$ ”**,  
71<sup>st</sup> Device Research Conf. (DRC), Notre Dame, IN, USA, June 2013.
  
- [4] S. Kolluri, S. Keller, S. P. DenBaars, and U. K. Mishra,  
**“Microwave Power Performance N-Polar GaN MISHEMTs grown by MOCVD on SiC Substrates using an Al<sub>2</sub>O<sub>3</sub> Etch-Stop Technology”**,  
IEEE Electron. Dev. Lett. **33**, 44 (2012).
  
- [5] S. Kolluri, S. Keller, S. P. DenBaars, and U. K. Mishra,  
**“N-Polar GaN MIS-HEMTs With a 12.1 W/mm Continuous-Wave Output Power Density at 4 GHz on Sapphire substrate”**,  
IEEE Electron. Dev. Lett. **32**, 635 (2011).

FOR AN OVERVIEW ON N-POLAR GaN BASED TRANSISTORS SEE:

M. H. Wong, S. Keller, Nidhi, S. Dasgupta, D. Denninghoff, S. Kolluri, D. F. Brown, J. Lu, N. A. Fichtenbaum, E. Ahmadi, U. Singiseti, A. Chini, S. Rajan, S. P. DenBaars, J. S. Speck, and U. Mishra,  
**“N-polar GaN epitaxy and high electron mobility transistors”**,  
Semicond. Sci. Technol. **28**, 074009 (2013).

U. Singiseti, M. H. Wong, and U. K. Mishra,  
**“High-performance N-polar GaN enhancement-mode device technology”**,  
Semicond. Sci. Technol. **28**, 074006 (2013).