

Table of Contents

Preface

Growth of 8-Inch SiC Single Crystals with Low Basal Plane Dislocation Density F.S. Zhang, Y.L. Shao, Y.Z. Wu, B.G. Zhang, D. Shi, H.X. Hu and X.P. Hao	1
300 mm 4H-SiC Crystal and Substrate Development Y.N. Pan, C. Gao, Y. Zhou, X.X. Ning, Y. Li, Y. Guo, H.Y. Peng and Y.M. Zong	7
Epitaxial Growth and Characterization of 4H-SiC Layer on C-Face and Si-Face Substrates C. Nania, R. Anzalone, D. Raciti, N. Piluso, F. Vento, C. Calabretta and A. Severino	15
Development of High Concentration Uniformity Epitaxial Growth on 200 mm 4H-SiC Wafers W.N. Qian, F.H. Huang, J.A. Li, G. Feng, J.H. Zhao and J.Y. Kang	21
Ultra-Pure SiC Source Material for Optical SiC Crystal Growth M. Schley, F. Schaaff and J. Richter	27
Ultra-Thick (~200µm) Epitaxy on 150mm 4H-SiC Wafers Using Single Wafer CVD Reactor T. Rana, T. Karim, J.P. Murphy, S. Johnson, N. Thierry-Jebali and E. Sanchez	35
Solution Growth Technique of Silicon Carbide with <i>In Situ</i> Observation Y. Abe, A. Kawabe, J. Osada, K. Kurashige, H. Nakanishi, H. Ishibashi and T. Ujihara	41
Close Space PVT Growth of N- and P-Type Quasi-Bulk SiC in a Classic PVT Setup and a Newly Developed TableTopCS™ Growth Machine S. Strüber, C. Grazzi, L. Tana, O. Schneider, T. Wagner, J. Wiedemann, P. Wunder and P.J. Wellmann	47
Application of a Fine Grain 3C-SiC Powder Source Material during PVT Growth of 4H-SiC Crystals J. Zöcklein, S. Strüber, C. Grazzi, N.C. Arneberg, T. Straub, S. Greulich-Weber and P.J. Wellmann	53
Optimization of Seed Crystal Stability at the Initial Growth Stage Depending on Heating Ramp Rates and Gas Flow Channels of SiC Source Powder for Growth of 8-inch N- Type 4H-SiC Single Crystal C.Y. Lee, S.H. Kim, J.W. Choi, M.O. Kyun, J.G. Kim, K.R. Ku, Y.S. Jang, J.G. Kim and W.J. Lee	59
Growth and Characterization of “IsoPure” Epitaxial Layers for Quantum Applications B. Kallinger, C. Gobert, M. Titl, R. Karhu, J. Köhler and J. Erlekampf	65
Remote Epitaxy of SiC: Feasibility, Challenges, and Pathways M. Ghezellou, J. Palisaitis and J. Ul-Hassan	71
Numerical Simulation of Optimal Source Temperature Distribution in PVT Method for SiC Single Crystals S. Tani, M. Urakami, W. Saito and S.I. Nishizawa	79