



Volume 389

1 March 2014

ISSN 0022-0248

JOURNAL OF

CRYSTAL GROWTH

EDITORS:

T.F. KUECH (Principal Editor),
University of Wisconsin-Madison

R.S. FEIGELSON, Stanford University

R. KERN, University of Aix-Marseille

K. NAKAJIMA, Kyoto University

G.B. STRINGFELLOW,
University of Utah

FOUNDING EDITOR: M. SCHIEBER

CO-FOUNDERS: N. CABRERA, B. CHALMERS,
F.C. FRANK

FORMER ADVISOR: R.A. LAUDISE[†]

Available online at www.sciencedirect.com

ScienceDirect



ELSEVIER

 JOURNAL OF **CRYSTAL GROWTH**

Abstracted/Indexed in: Aluminium Industry Abstracts; Chemical Abstracts; Current Contents: Physical, Chemical and Earth Sciences; EI Compendex Plus; Engineered Materials Abstracts; Engineering Index; INSPEC; Metals Abstracts. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®

CONTENTS

Classical semiconductors

Multilayer structures of silicon-suboxide embedded in single crystal silicon

C. Pohl, N. Raab, M. Mitterer, N. Tarkina, U. Breuer and K. Brunner

12

Density limits of high temperature and multiple local droplet etching on AlAs

J. Kerbst, Ch. Heyn, T. Slobodsky and W. Hansen

18

Role of high microwave power on growth and microstructure of thick nanocrystalline diamond films: A comparison with large grain polycrystalline diamond films

C.J. Tang, A.J.S. Fernandes, A.V. Girão, S. Pereira, F.-N. Shi, M.R. Soares, F. Costa, A.J. Neves and J.L. Pinto

83

Formation process of Si₃N₄ particles on surface of Si ingots grown using silica crucibles with Si₃N₄ coating by noncontact crucible method

K. Nakajima, K. Morishita, R. Murai and N. Usami

112

Bulk growth of uniform and near stoichiometric cadmium telluride

S.K. Swain, Y. Cui, A. Datta, S. Bhaladhare, M. Rohan Rao, A. Burger and K.G. Lynn

134

Growth and physical characterization of AgGa_{1-x}In_xSe₂ (x=0.5) single crystals grown by modified vertical Bridgman method

P. Vijayakumar, G. Anandha Babu and P. Ramasamy

139

Electronic materials

Evaluation of CdTe_xSe_{1-x} crystals grown from a Te-rich solution

U.N. Roy, A.E. Bolotnikov, G.S. Camarda, Y. Cui, A. Hossain, K. Lee, G. Yang and R.B. James

99

Tapering and crystal structure of indium phosphide nanowires grown by selective area vapor liquid solid epitaxy

Y. Greenberg, A. Kelrich, Y. Calahorra, S. Cohen and D. Ritter

103

RETRACTED: Interactions between planar defects in bulk 3C-SiC

Y. Ikebe, H. Nagasawa, N. Hata, T. Kawahara and K. Yagi

108

Solution growth; industrial biological and molecular crystallization

Growth, optical, thermal, dielectric and microhardness characterizations of melaminium bis (trifluoroacetate) trihydrate single crystal

V. Sangeetha, K. Gayathri, P. Krishnan, N. Sivakumar, N. Kanagathara and G. Anbalagan

30

Growth and characterization of terbium fumarate heptahydrate single crystals

B. Want and M.D. Shah

39

Effect of solidification parameters on the microstructures of superalloy CMSX-6 formed during the downward directional solidification process

F. Wang, D. Ma, J. Zhang, L. Liu, J. Hong, S. Bogner and A. Bührig-Polaczek

47

Large eddy simulation of industrial Czochralski Si crystal growth under transverse magnetic field

X. Chen, J.-m. Zhan, Y.-S. Li and X.-r. Cen

60

Growth, morphology, spectral and thermal studies of gel grown diclofenac acid crystals

E. Ramachandran and S. Ramukutty

78

General subjects

Single-crystalline GaN nanotube arrays grown on *c*-Al₂O₃ substrates using InN nanorods as templates

H. Li, C. Liu, G. Liu, H. wei, C. Jiao, J. Wang, H. Zhang, D.d. Jin, Y. Feng, S. Yang, L. Wang, Q. Zhu and Z.-G. Wang

1

Growth of calcite seeds in a magnetized environment

C.Y. Tai, M.-C. Chang, C.-C. Liu and S.S.-S. Wang

5

Growth of crack-free ZnGeP₂ large single crystals for high-power mid-infrared OPO applications

Z. Lei, C. Zhu, C. Xu, B. Yao and C. Yang

23

Epitaxial growth of manganese oxide films on MgAl₂O₄ (001) substrates and the possible mechanism

L. Ren, S. Wu, W. Zhou and S. Li

55

On the solution of solute diffusion during eutectic growth

H. Wang, F. Liu and D.M. Herlach

68

Crystalline boron nanowires grown on the diamond surface

H. Bai, D. Dai, C.X. Zhu, G.X. Chen and N. Jiang

74

Influence of film thickness on the morphological and electrical properties of epitaxial TiC films deposited by reactive magnetron sputtering on MgO substrates

N.C. Zoita, V. Braic, M. Danila, A.M. Vlaicu, C. Logofatu, C.E.A. Grigorescu and M. Braic

92

Governing factors for the formation of 4H or 6H-SiC polytype during SiC crystal growth: An atomistic computational approach

K.-H. Kang, T. Eun, M.-C. Jun and B.-J. Lee

120

RETRACTED: Interactions between planar defects in bulk 3C-SiC

Y. Ikebe, H. Nagasawa, N. Hata, T. Kawahara and K. Yagi

R1

