Optoelectronic Packaging & Materials Lab

Publications

Book & Chapters

- BC1. P.G. Chiu (primary), D.T. Hsu, H.K. Kim, F.G. Shi, H.S. Nalwa and B. Zhao, Low-k Materials for Microelectronics Interconnects, Chapter 6, in ***Handbook of Advanced Electronic and Photonic Materials***, Academy Press, pp.203-234, 2000.
- BC2. Kumomi, H. and F. G. Shi, Fundamentals for the Formation and Structure Control of Thin Films: Nucleation, Growth & Solid-State Transformations, in ***Handbook of Thin Film Materials***, Academic Press, pp. 319-374, 2001.
- BC3 Ju H. Choi, Alfred Margaryan, Ashot Margaryan, Frank G. Shi, CHAPTER-2: Analysis of the Laser Transition and Non-Radiative Properties of Nd^{3+} in Novel Fluorophosphate Glasses, in ***Physics and Chemistry of Rare-Earth Ions Doped Glasses,*** Edited by N. SOORAJ HUSSAIN & J.D DA SILVA SANTOS, Trans Tech Pub. Inc., Laubisrutistr, Switzerland, pp49-68, 2008. (primary)
- BC4 Yuan-Chang Lin, Yan Zhou, Nguyen T. Tran and Frank G. Shi, Chapter 18 LED and Optical Device Packaging and Materials, in ***Materials for Advanced Packaging*** Edited by Daniel Lu, C. P. Wong, Springer pp 629-680, 2009 (primary)
- BC5 Z. Tang, T. Shi and Frank G. Shi, Advanced Packaging of Optoelectronic Devices in ***Wiley Encyclopedia of Electrical and Electronics Engineering***, pp 1-27, Published Online: 18 JAN 2013, DOI: 10.1002/047134608X.W8193 (primary)
- BC6 LED Die Bonding Materials by Yu-Chou Shih, Jiun-Pyng You and Frank G. Shi, in ***Materials for Advanced Packaging***, pp 733-766, Springer, 2nd ed., 2016 (primary)
- BC7 Silicon Solar Cell Metallization by Yu-Chou Shih and Frank G. Shi, c in ***Materials for Advanced Packaging***, pp 855-878, Springer, 2nd ed., 2016 (primary)
- BC8 ***Beam Propagation Method and Microlens Design for optical Coupling***, Published by VDM Verlag (2010) ISBN 10: 3639209729 ISBN 13: 9783639209723
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Book Review, Magazine Article and Editorial (0)

- o1. Hsu, D.T., M. Iskandar, H.Y. Tong, P.I. Gunawan, L. Ramirez and Frank G. Shi, Compatibility Analysis of Low-Dielectric-Constant Interlevel Dielectrics with the Electroless Cu Deposition Process, Technical Report to SEMATECH, 1997, pp.120
- o2. Shi, F.G., Review of New Trends in Materials Chemistry (R. Catlow and A. Cheetham, Kluwer Academic Polishers, 1997), Materials Technology, 13(3):135-136, 1998 (book review)
- o3. Shi, F.G and B. Zhao, Special Issue on Advances in Materials Science of IC Interconnects and Packaging - Foreword, J. Electronic Materials 30(4):283, 2001 (editorial)
- o4. Zhou, H., Z. Tang, Y. Lin, W. Liu, S. Mondal and F.G. Shi, Packaging of Fiber Collimators: a Novel Automation Process for Photonic Devices, Advanced Packaging, January Issue, 25-29, 2002 (magazine article)
- o5. Shi, F.G., Review of Ligands and Modifiers of Vitreous Materials (A. Margaryan, 1999, World Sci. Pub.), Optics & Photonics News, Jan 2002 (book review)
- o6. Zhang, R., Shi F.G., Simplex algorithm aligns quickly and simply LASER FOCUS WORLD 41(1): 153-3, 2005 (received commendation for excellence in technical communication)

- o7. Shi, F.G., Y. Zhou and M. Edwards, Optical nanocomposite is suited for photonic packaging, Laser Focus World, 39(10):93-6, 2003 (received commendation for excellence in technical communication)

Refereed Journal Articles

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- J11. Shi, F.G. (primary) and J.H. Seinfeld, Nucleation in the Pre-Coalescence Stages: Universal Kinetic Laws, Materials Chemistry and Physics, 37(1):1-15,1994 (invited review with honorarium).
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