

Dr. Yongfeng Lu

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Plenary talk

Laser 3D printing of copper/diamond composite materials

Structures with high thermal conductivity (TC) and intricate shapes are crucial for microelectronics. Composite materials consisting of two highly thermal conductive elements, copper (Cu) and diamond (D), may fulfill these unmet needs. However, the lack of chemical affinity between Cu and D and the difficulty of machining D-based materials presents significant challenges. In this work, laser 3D printing of Cu/D composite materials was investigated to overcome the challenges.

About the speaker

Dr. Yongfeng Lu is the Lott Distinguished Professor at the University of Nebraska-Lincoln (UNL). He received his bachelor's degree from Tsinghua University (China) in 1984 and M.Sc. and Ph.D. degrees from Osaka University (Japan) in 1988 and 1991. He served as the President of the Laser Institute of America (LIA) and the President of International Academy of Photonics and Laser Engineering (IAPLE). He is the fellow of SPIE, LIA, OSA, IAPLE fellow. He is also the recipient of the Schawlow Award.