Advanced Energy Materials and Research

Multi-striped orthogonal photon-photo carrier-propagation solar cells (MOP³SCs) with new asymmetric redirection waveguides

Akira Ishibashi
Research Institute for Electronic Science - Hokkaido University, Japan

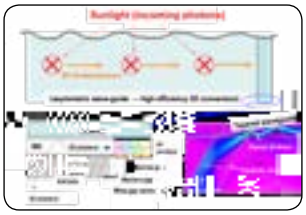

Figure 1: Waveguide-coupled multi-striped orthogonal photon-photocarrier-propagation solar cell (MOP³SC), the cross-section of MOP³SC with the periodic parabolic mirrors (down left), and a simulation result for an example of asymmetric waveguide [tapered WG] (down right). The total width of the multi-striped semiconductor is tens to hundreds of microns.

Recent Publications

1. (2016) 115-117.
2. (2016) 33.
3. (2016) (4): 77-83.

Biography

Akira Ishibashi received the BSc, MSc and PhD degrees in Physics in 1981, 1983, and 1990, respectively, all from the University of Tokyo, Japan. During 1982–1983, he was a Research Assistant at LBNL, Berkeley, USA. In 1983, he joined the Research Center of Sony Corporation, Yokohama. He was a Visiting Faculty at Loomis /DERUDWRU\ 'HSDUWPHQW RI 3K\VLFV 8QLYHUVLW\ RI ,OOLQRLV DW 8UEDQD &KDPSDLJQ ,Q 6RQ\ K using ZnMgSSe, in 1993. He was a Visiting Professor at Center for Interdisciplinary Research, Tohoku University, Japan in 1998. Since 2003 he has been a full Professor in leading Nanostructure Physics Lab in RIES, Hokkaido University, Japan. In 2006, he started Hokkaido University Venture Company, C'sTEC Corp., based on Clean Unit 6\VWHP 3ODWIRUP &863 +LV PDLQ WDUJHW LV WR UHDOL]H KLJK HI¿FLHQF\ VRODU FHOOV H[SORLWLQJ &86

i-akira@es.hokudai.ac.jp