Oral presentation | 12 Organic Molecules and Bioelectronics: 12.5 Organic and hybrid solar cells

★ Thu. Sep 19, 2024 1:00 PM - 5:00 PM JST | Thu. Sep 19, 2024 4:00 AM - 8:00 AM UTC **★** C302 (Hotel Nikko 30F)

[19p-C302-1~13] 12.5 Organic and hybrid solar cells

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2:30 PM - 2:45 PM JST | 5:30 AM - 5:45 AM UTC

[19p-C302-5] [The 56th Young Scientist Presentation Award Speech] Fabrication of double heterostructures of CsPbBr₃/CsSnBr₃/CsPbBr₃ by physical vapor codeposition

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Keywords: perovskite semiconductors

Recently, metal halide perovskites (ABX3) have attracted much attention as materials for optoelectronic devices due to their broad bandgap tunability by composition control and long optical carrier lifetime. We have previously reported that B-site substituted double-heterostructure (CsPbBr₃/ CsSnBr₃/CsPbBr₃) are stable for a long time and also construct a Type-I Quantum Well. In this study, we fabricated a double heterostructure of CsPbBr₃/ CsSnBr₃/ CsPbBr₃ in the several CsSnBr₃ layer thickness and evaluated its compositional distribution (XPS), crystallinity, optical and luminescence properties.