

## Electronic Supporting Information

### Probing impact of interface mixing on charge carrier dynamics of a solution-processed organic light emitting diode via impedance spectroscopy

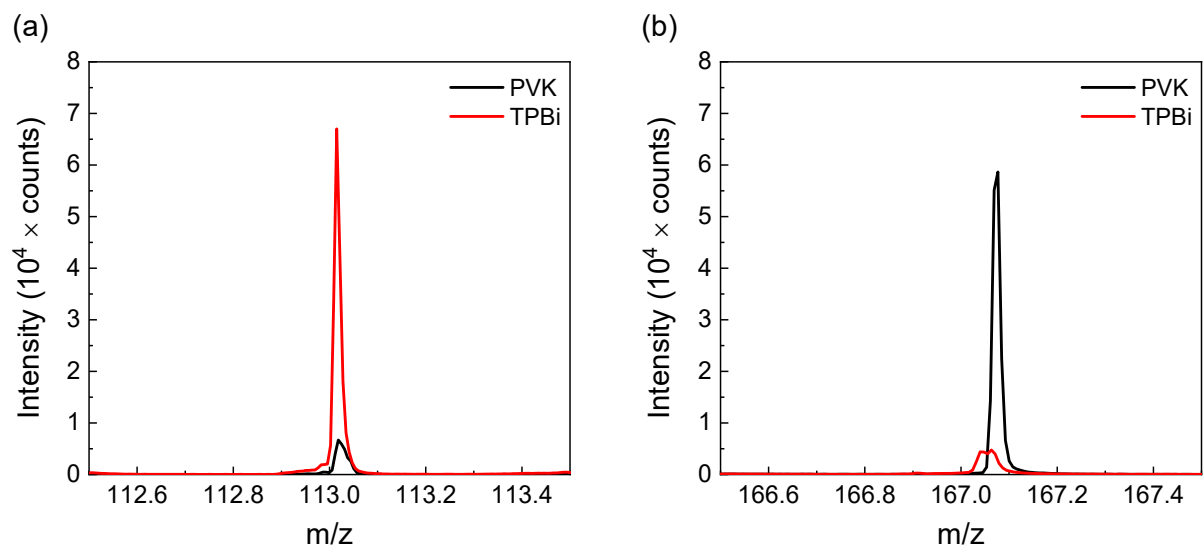
Ji Soo Kim,<sup>a</sup> Soon-Hyung Kwon,<sup>\*b</sup> and Youn Sang Kim<sup>\*a,c,d</sup>

<sup>a</sup>*Department of Applied Bioengineering, Graduate School of Convergence Science and Technology, Seoul National University, Seoul 08826, Republic of Korea. E-mail: younskim@snu.ac.kr*

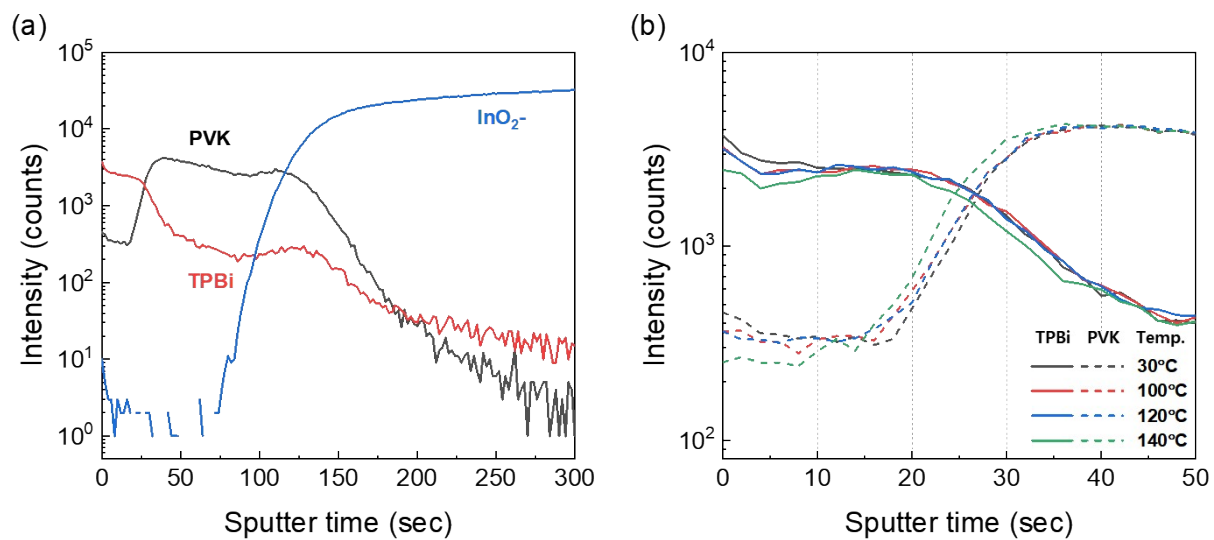
<sup>b</sup>*Display Research Center, Korea Electronics Technology Institute, 25 Saenari-ro, Bundang-gu, Seongnam-si, Gyeonggi-do 13509, Republic of Korea. E-mail: kwonsh@keti.re.kr*

<sup>c</sup>*School of Chemical and Biological Engineering, and Institute of Chemical Processes, College of Engineering, Seoul National University, Gwanak-ro 1, Gwanak-gu, Seoul, 08826, Republic of Korea.*

<sup>d</sup>*Advanced Institutes of Convergence Technology, 145 Gwanggyo-ro, Yeongtong-gu, Suwon, 16229, Republic of Korea*



**Fig. S1.** Time-of-flight secondary ion mass spectrometry (ToF-SIMS) peaks of PVK (black) and TPBi (red) near **(a)** 113 and **(b)** 167 m/z.



**Fig. S2. (a)** ToF-SIMS depth profiles of PVK (black), TPBi (red) and ITO (blue). **(b)** PVK (dashed line) and TPBi (solid line) depth profiles annealed at 30 (black), 100 (red), 120 (blue), and 140°C (green).