

Accepted Manuscript

Title: Green and Low-cost Approach to Modify the Indium Tin Oxide Anodes in Organic Light-emitting Diodes by Electrochemical Treatment in NaCl Aqueous Solution

Authors: Chao Sun, Chuan Hui Cheng, Bi Long Zhang, Ruo Xuan Li, Yuan Wang, Wei Feng Liu, Ying Min Luo, Guo Tong Du, Shu Lin Cong



PII: S0169-4332(17)31564-7
DOI: <http://dx.doi.org/doi:10.1016/j.apsusc.2017.05.209>
Reference: APSUSC 36144

To appear in: *APSUSC*

Received date: 18-12-2016
Revised date: 18-1-2017
Accepted date: 24-5-2017

Please cite this article as: Chao Sun, Chuan Hui Cheng, Bi Long Zhang, Ruo Xuan Li, Yuan Wang, Wei Feng Liu, Ying Min Luo, Guo Tong Du, Shu Lin Cong, Green and Low-cost Approach to Modify the Indium Tin Oxide Anodes in Organic Light-emitting Diodes by Electrochemical Treatment in NaCl Aqueous Solution, *Applied Surface Science* <http://dx.doi.org/10.1016/j.apsusc.2017.05.209>

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**Green and Low-cost Approach to Modify the Indium Tin Oxide Anodes in Organic
Light-emitting Diodes by Electrochemical Treatment in NaCl Aqueous Solution**

Chao Sun,¹ Chuan Hui Cheng,^{1*} Bi Long Zhang,¹ Ruo Xuan Li,¹ Yuan Wang,¹ Wei Feng Liu,^{1,}

^{2*} Ying Min Luo,¹ Guo Tong Du,^{1,3} and Shu Lin Cong¹

¹*School of Physics and Optoelectronic Technology, Dalian University of Technology, Dalian
116024 China*

²*Mechanical and Electrical Engineering College, Hainan University, Haikou 570228 China*

³*State Key Laboratory on Integrated Optoelectronics, College of Electronic Science and
Engineering, Jilin University, Changchun 130012 China*

E-mail: chengchuanhui@dlut.edu.cn (C. H. Cheng) liuwf@dlut.edu.cn (W. F. Liu)

Highlights

- An environment-friendly method to modify the surface of indium tin oxide is proposed.
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- ITO was functionalized with Cl⁻ ions by electrochemical treatment in NaCl solution.
- A chlorinated ITO electrode with a work function of 5.41 eV was obtained.

Abstract: We demonstrate an environment-friendly, simple, and low energy cost approach as an alternative to conventional O₂ plasma treatment to modify the surface of indium tin oxide (ITO) anodes for use in organic light-emitting diodes (OLEDs). ITO is electrochemically treated in NaCl aqueous solution. A chlorinated ITO (Cl-ITO) electrode with a work function of 5.41 eV was obtained, which is 0.66 eV higher than that of pre-cleaned ITO. The increase of work function is due to the anodic oxidation reactions occurred on the surface of ITO. The power dissipation is only ~3 mW in our approach, which is five orders of magnitude lower than that of O₂ plasma treatment (~100W). We fabricated the OLEDs with the configuration of Cl-ITO/NPB(35 nm)/CBP:Ir(ppy)₃ (15 nm, 8

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