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Corrigendum

## Corrigendum to "Compositional analysis by RBS, XPS and EDX of ZnO:Al,Bi and ZnO:Ga,Bi thin films deposited by d.c. magnetron sputtering" [Vacuum 161 (2019) 268–275]

J.M. Ribeiro<sup>a</sup>, F.C. Correia<sup>a</sup>, P.B. Salvador<sup>a</sup>, L. Rebouta<sup>a</sup>, L.C. Alves<sup>b</sup>, E. Alves<sup>b</sup>, N. P. Barradas<sup>b,c</sup>, A. Mendes<sup>d</sup>, C.J. Tavares<sup>a,\*</sup>

<sup>a</sup> Centre of Physics, University of Minho, 4804-533, Guimarães, Portugal

<sup>b</sup> Institute for Plasmas and Nuclear Fusion, IST, University of Lisbon, Lisbon, Portugal

<sup>c</sup> Centre for Nuclear Sciences and Technologies, IST, University of Lisbon, Bobadela, Portugal

<sup>d</sup> LEPABE, Faculty of Engineering of the University of Porto, Rua Roberto Frias s/n, 4200-465, Porto, Portugal

The authors regret the typographical errors in the value of the Zn 2p binding energy in some parts of the document.

In particular, in Page 272, right column, it should read:

Reports in the literature confirm that for Bi doping in the ZnO wurtzite cell it was possible to resolve a slight decrease in this binding energy (**1021.5** eV) when compared to undoped ZnO [23]. Also, it was reported that this Zn 2p3/2 core line may have some degree of asymmetry when compared to that of bulk ZnO [23]. With this in mind, in Fig. 9 is presented the experimental Zn 2p3/2 core lines shapes for undoped ZnO (FWHM=1.8 eV; center: **1022.0** eV; asymmetry: -0.02),

ZnO:Al,Bi (FWHM=1.7 eV; center: **1021.7** eV; asymmetry: -0.04) and ZnO:Ga,Bi (FWHM=1.7 eV; center: **1021.3** eV; asymmetry: -0.07) films, where it can be perceived a shift to lower binding energies.

In page 273, Figure 9 caption should read:

Fig. 9. XPS experimental Zn 2p3/2 core lines shapes for ZnO (FWHM=1.8 eV; center: **1022.0** eV; asymmetry: -0.02), ZnO:Al,Bi (FWHM=1.7 eV; center: **1021.7** eV; asymmetry: -0.04;  $\sim$ 2 at%. Al,  $\sim$ 1 at%. Bi) and ZnO:Ga,Bi (FWHM=1.7 eV; center: **1021.3** eV; asymmetry: -0.07;  $\sim$ 2 at%. Ga,  $\sim$ 9 at%. Bi) films.

The authors would like to apologise for any inconvenience caused.

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*E-mail address:* ctavares@fisica.uminho.pt (C.J. Tavares).

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