

### Supporting information

#### **Alginate-based hydrogels embedded with ZnO nanoparticles as high response colorimetric oxygen indicators**

Authors: Kodchakorn Sattayapanich<sup>a</sup>, Weerawut Chaiwat<sup>b,\*</sup>, Sininart Boonmark<sup>c</sup>, Sareeya Bureekaew<sup>c</sup>, Sutthira Sutthasupa<sup>a,d,\*</sup>

<sup>a</sup> Division of Packaging Technology, Faculty of Agro-Industry Chiang Mai University, Chiang Mai, 50100, Thailand

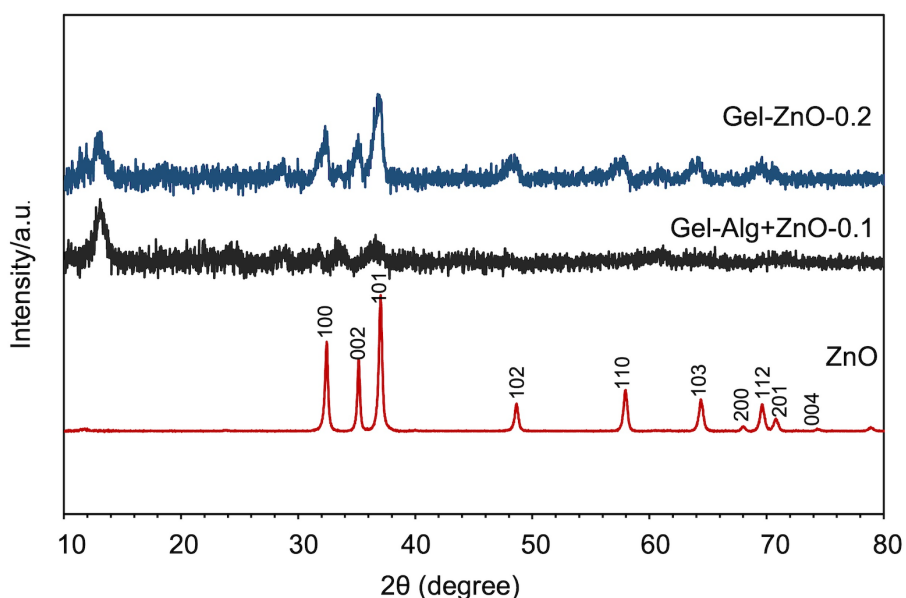
<sup>b</sup> Department of Chemical Engineering, Faculty of Engineering, Mahidol University, Nakhon Pathom, 73170, Thailand

<sup>c</sup> School of Energy Science and Engineering, Vidyasirimedhi Institute of Science and Technology, 555 Moo 1 Payupnai, Wangchan, Rayong, 21210, Thailand.

<sup>d</sup> Center of Excellence in Materials Science and Technology, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand

\*Corresponding author: Sutthira Sutthasupa (E-mail: sutthira.s@cmu.ac.th)

\*Co-corresponding author: Weerawut Chaiwat (Email: weerawut.cha@mahidol.ac.th)



**Figure S1.** XRD patterns of ZnO, Gel-Alg+ZnO-0.1, and Gel-ZnO-0.2