Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Descriptions of Movies

Movie S1

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 0.02 A/cm^2 with a pore diameter of 800 μm (movie real during time: 0.1127s)

Movie S2

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 0.2 A/cm^2 with a pore diameter of 800 μm (movie real during time: 0.12s)

Movie S3

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 0.4 A/cm^2 with a pore diameter of 800 μm (movie real during time: 0.086s)

Movie S4

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 0.8 A/cm^2 with a pore diameter of 800 μm (movie real during time: 0.1182)

Movie S5

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 1.6 A/cm^2 with a pore diameter of 800 μm (movie real during time: 0.1062s)

Movie S6

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 2.0 A/cm^2 with a pore diameter of 800 μm (movie real during time: 0.0949s)

Movie S7

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 2.0 A/cm^2 with a pore diameter of 400 μm (movie real during time: 0.0148s)

Movie S8

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells at 2.0 A/cm^2 with a pore diameter of 600 μm (movie real during time: 0.0148s)

Movie S9

Visualization of oxygen evolution electrochemical reactions at micro-pore scale in proton exchange membrane electrolyzer cells with two fibers in a pore diameter of 400 μm, left one is good conductive and right one is insulative (movie real during time: 0.0148s)