

## Supporting Information

### Humic acid removal by gas-liquid interface discharge plasma: performance, mechanism and comparison to ozonation

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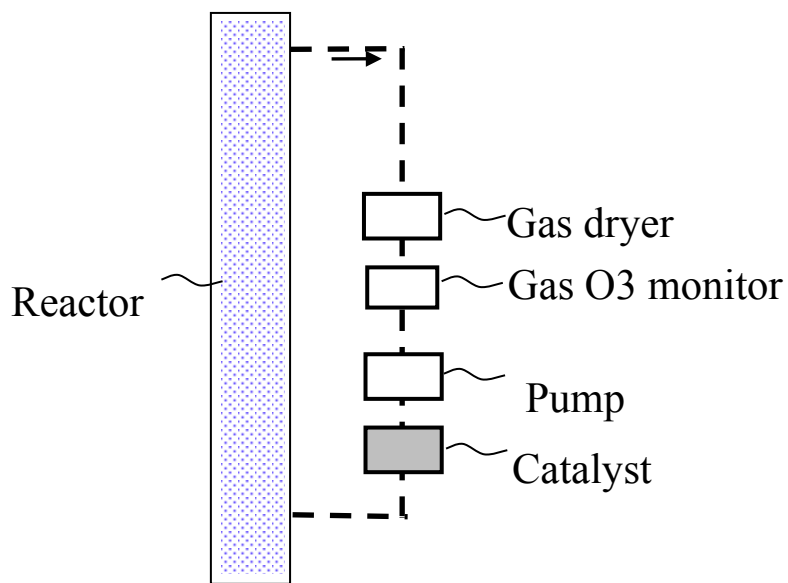
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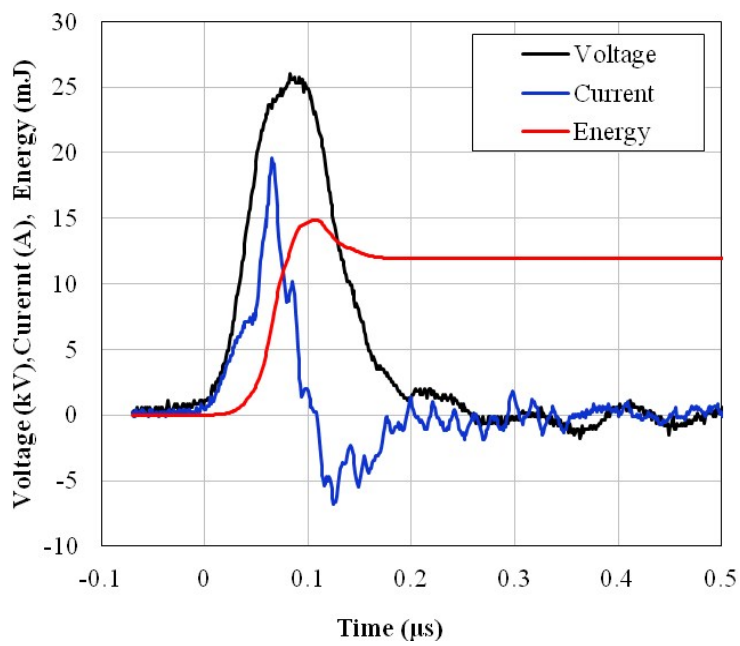
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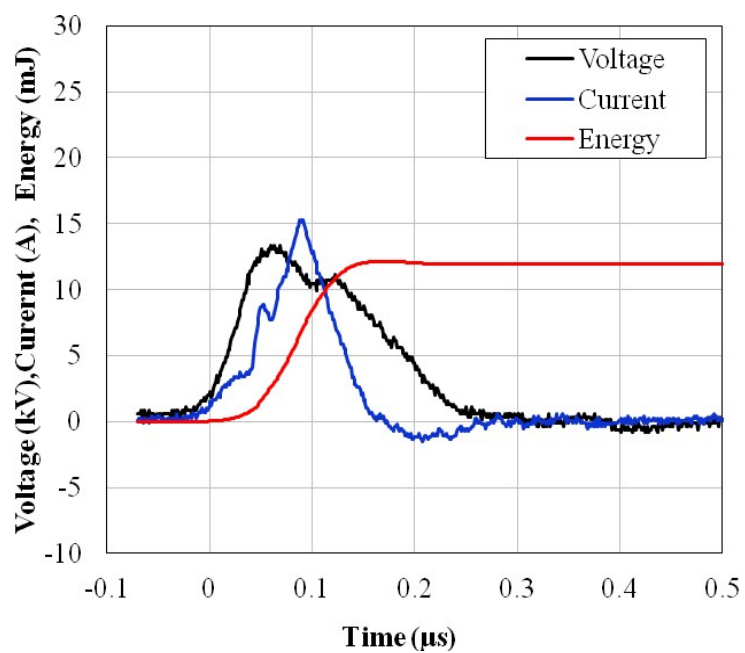
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**Fig. S1** Schematic diagram of the experimental apparatus with ozone decomposing catalyst

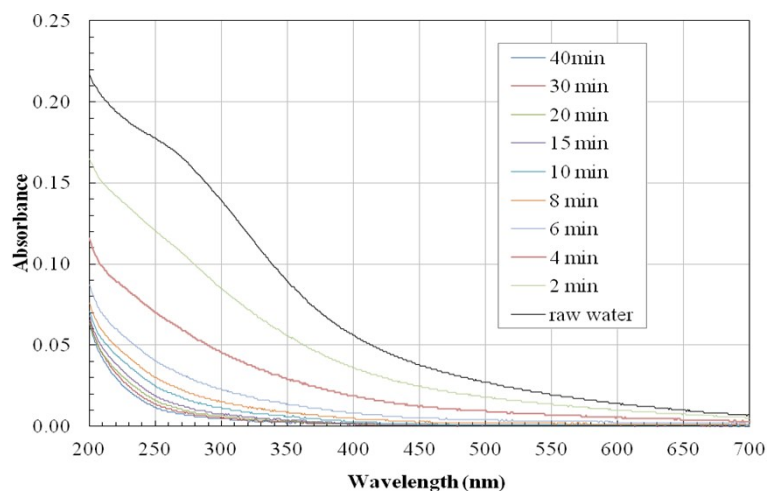


(a)

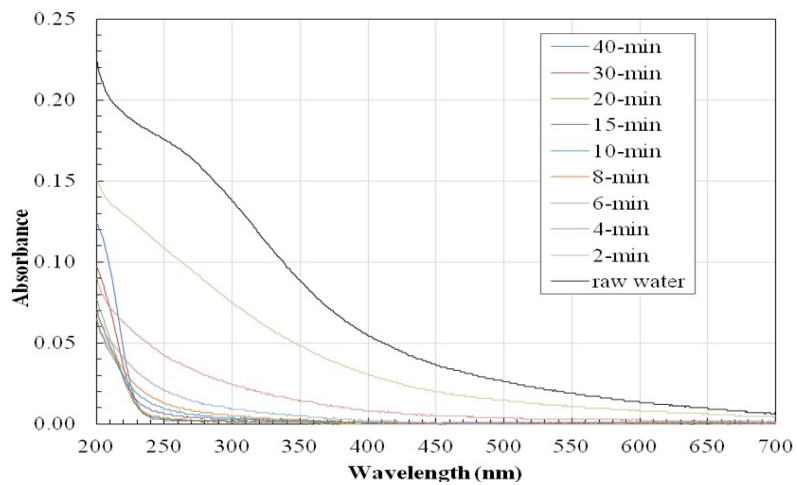


(b)

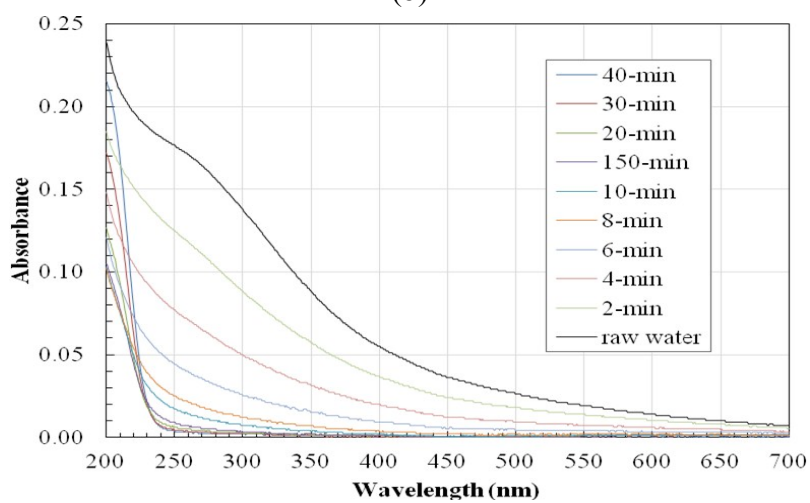
**Fig. S2** Typical waveforms of pulse voltage, discharge current, and discharge energy in the pure carrier gas of (a)  $\text{O}_2$  and (b) Ar (discharge conditions: 500pps, 12mj/pulse, 6W)



(a)



(b)



(c)

**Fig.S3** UV/Vis absorbance of HA during ozonatin treatment (a) and plasma without catalyst (b) and with catalyst (c)