

Electronic Supplementary Material

Non-thermal plasma enhances performances of biochar in wastewater treatment and energy storage applications

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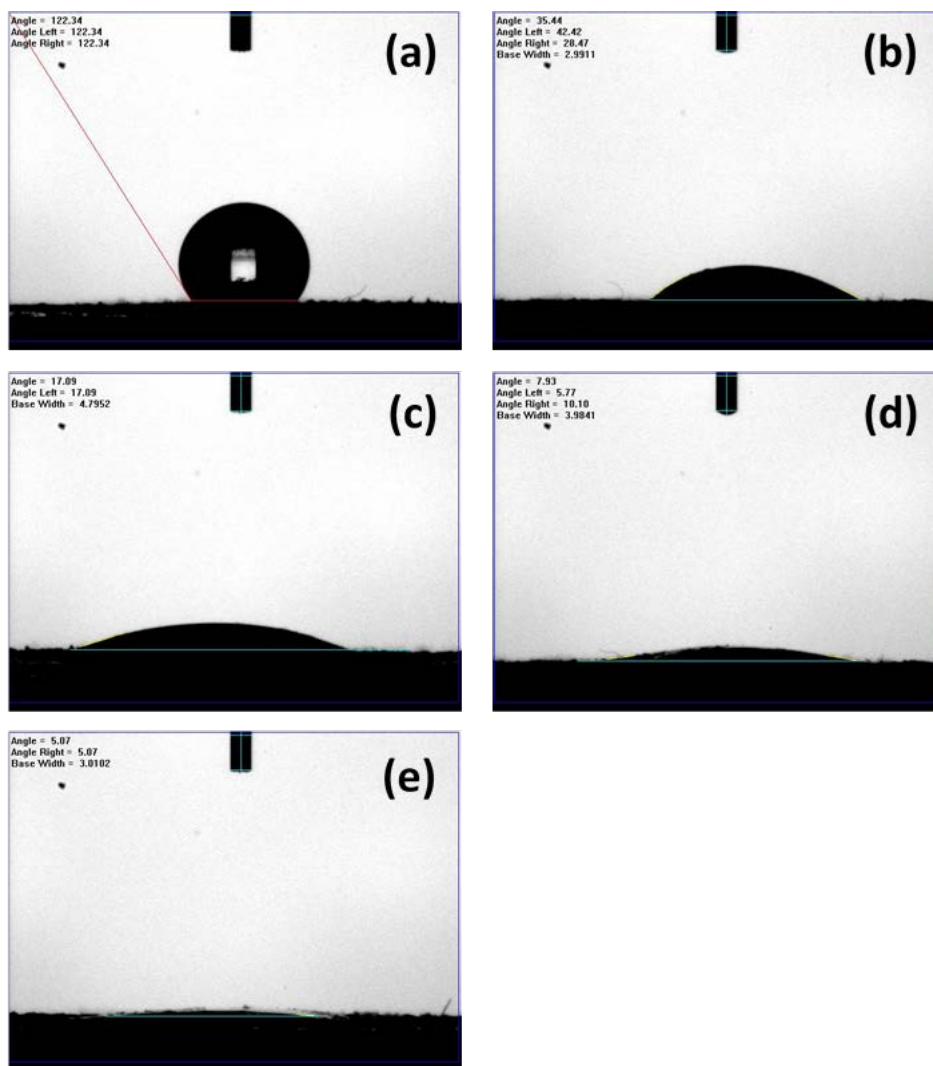


Fig. S1. Water contact angles of BSSBC samples (5 s of contact time) (a) BSSBC, (b) BSSBC-P-1, (c) BSSBC-P-3, (d) BSSBC-P-5 and (e) BCCBC-P-10.

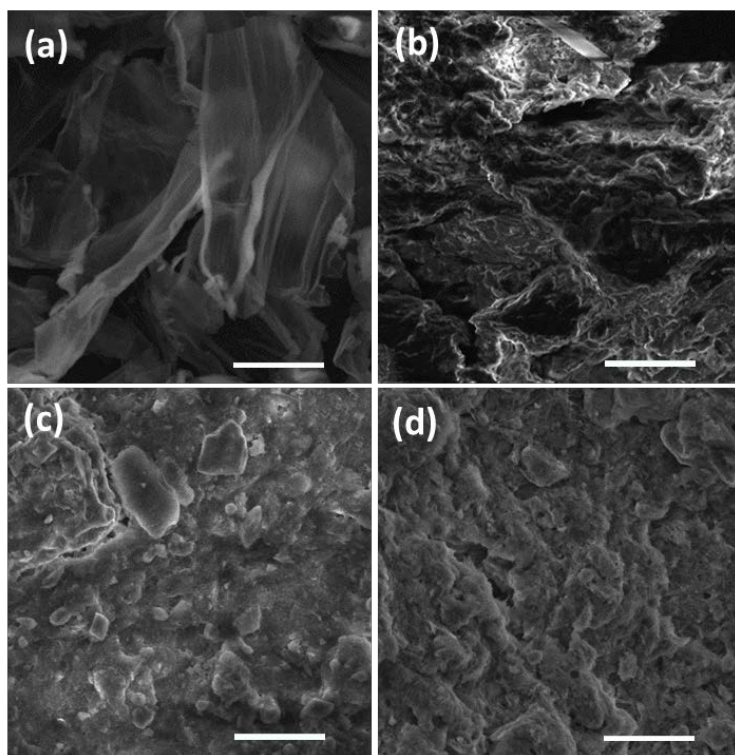


Fig. S2. SEM images of (a) BSS, (b) BSSBC, (c) BSSBC-P-5 and (d) BSSBC-P-10. The scale bar in the photos was 10 μm .

Table S1 Isotherm parameters from Langmuir equation for Pb(II) adsorption on the original and plasma-treated BSSBC at room temperature (298 K).

| Sample | Fitting results | | |
|------------|-----------------|----------|----------------|
| | Q (mg/g) | b (L/mg) | R ² |
| BSSBC | 66.67 | 0.063 | 0.9992 |
| BSSBC-P-10 | 94.34 | 0.095 | 0.9938 |
| BSSBC-P-20 | 59.88 | 0.036 | 0.9935 |