Title (1)	:	**Rapid Small-Scale Column Test of Oil Palm Frond Biochar Potential as Heavy Metal Adsorbent**
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Abstract	:	One of the most abundant byproducts of the oil palm industry is oil palm frond (OPF). Converting OPF into biochar would significantly increase its value because it has the potential to be used as a renewable adsorbent. Column studies must be performed in order to evaluate its potential as an adsorbent. Because of its smaller volume, the rapid small-scale column test was carried out to assess the efficacy of OPF biochar as an adsorbent. The Yoon and Nelson adsorption kinetic model was used to fit the experimental data ($R2 > 0.81$) which adequately explains the overall adsorption of Pb2+, Cu2+, Ni2+ and Zn2+ onto OPF biochar. The projected breakthrough time and capacities match the column adsorption capacity predicted by Yoon and Nelson. Using the data gained in this investigation, it is possible to simulate a full-scale column.