MgAl layered double hydroxides with chloride and carbonate ions as interlayer anions for removal of arsenic and fluoride ions in water

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\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{FigS1.png}
\caption{Fig. S1 EDS of the as-prepared MgAl-LDHs.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{FigS2.png}
\caption{Fig. S2 EDS of MgAl-LDHs after As (V) adsorption, the initial concentrations of As (V) is 100 ppm.}
\end{figure}
Fig. S3 FTIR spectra of MgAl-LDHs before and after As (V)/F⁻ adsorption, the initial concentrations of As (V) and F⁻ both are 100 ppm.

Fig. S4 EDS of MgAl-LDHs after fluoride adsorption, the initial concentration of fluoride is 100 ppm.

Fig. S5 SEM images of MgAl-LDHs after adsorption of As (V) (a) and F⁻ (b), the initial concentrations of As (V) and F⁻ are both 100 ppm.
Table S1 Summary of the Langmuir and Freundlich isotherms model parameters for the As (V)/F⁻ uptake capacity on MgAl-LDHs.

<table>
<thead>
<tr>
<th>Sample name</th>
<th>Langmuir</th>
<th>Freundlich</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$q_m$ (mg/g)</td>
<td>b (L mg⁻¹)</td>
</tr>
<tr>
<td>LDH-As</td>
<td>125.80</td>
<td>0.429</td>
</tr>
<tr>
<td>LDH-F</td>
<td>28.60</td>
<td>0.046</td>
</tr>
</tbody>
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$R^2$: correlation coefficient