

# Interaction of the Fungal Metabolite Harzianic Acid with Rare-Earth Cations ( $\text{La}^{3+}$ , $\text{Nd}^{3+}$ , $\text{Sm}^{3+}$ , $\text{Gd}^{3+}$ )

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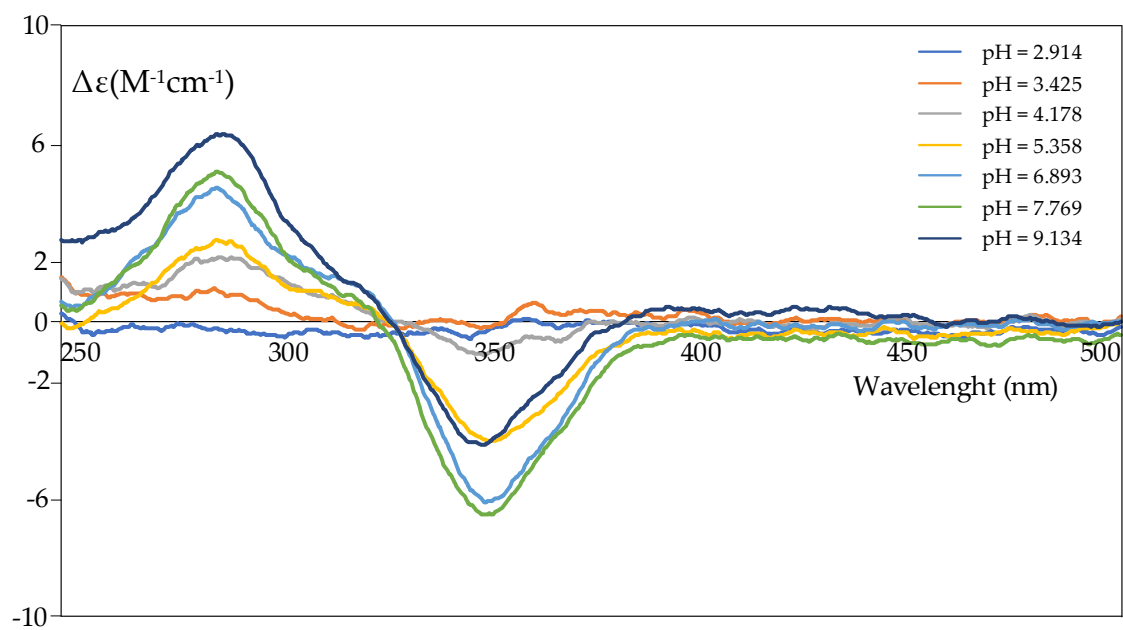
**Figure S1.** Far-UV circular dichroism (CD) spectra (optical path 0.2 cm) of harziaic acid in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values:  $C_{\text{H}_2\text{L}} \leq 1.72 \times 10^{-4} \text{ M}$ .

**Figure S2.** Far-UV circular dichroism (CD) spectra (optical path 1 cm) of  $\text{La}(\text{ClO}_4)_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values: (A)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{La}}} = 0.995$ ,  $C_{\text{La}} \leq 3.82 \times 10^{-5} \text{ M}$ ; (B)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{La}}} = 1.992$ ,  $C_{\text{La}} \leq 3.99 \times 10^{-5} \text{ M}$ .

**Figure S3.** Far-UV circular dichroism (CD) spectra (optical path 0.2 cm) of  $\text{NdCl}_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values: (A)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Nd}}} = 1.000$ ,  $C_{\text{Nd}} \leq 23.3 \times 10^{-4} \text{ M}$ ; (B)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Nd}}} = 1.935$ ,  $C_{\text{Nd}} \leq 8.26 \times 10^{-5} \text{ M}$ .

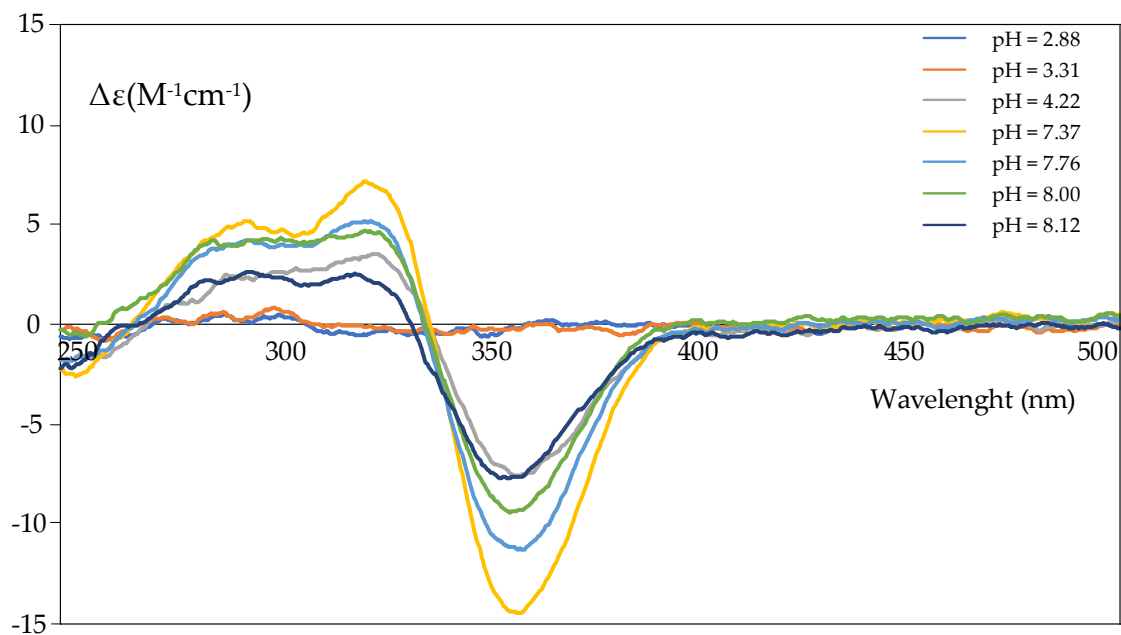
**Figure S4.** Far-UV circular dichroism (CD) spectra (optical path 1 cm) of  $\text{Sm}(\text{ClO}_4)_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values: (A)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Sm}}} = 1.051$ ,  $C_{\text{Sm}} \leq 8.04 \times 10^{-5} \text{ M}$ ; (B)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Sm}}} = 2.02$ ,  $C_{\text{Sm}} \leq 3.01 \times 10^{-5} \text{ M}$ .

**Figure S5.** Far-UV circular dichroism (CD) spectra (optical path 1 cm) of  $\text{GdCl}_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values: (A)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Gd}}} = 1.00$ ,  $C_{\text{Gd}} \leq 6.44 \times 10^{-5} \text{ M}$ ; (B)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Gd}}} = 1.99$ ,  $C_{\text{Gd}} \leq 4.57 \times 10^{-5} \text{ M}$ .

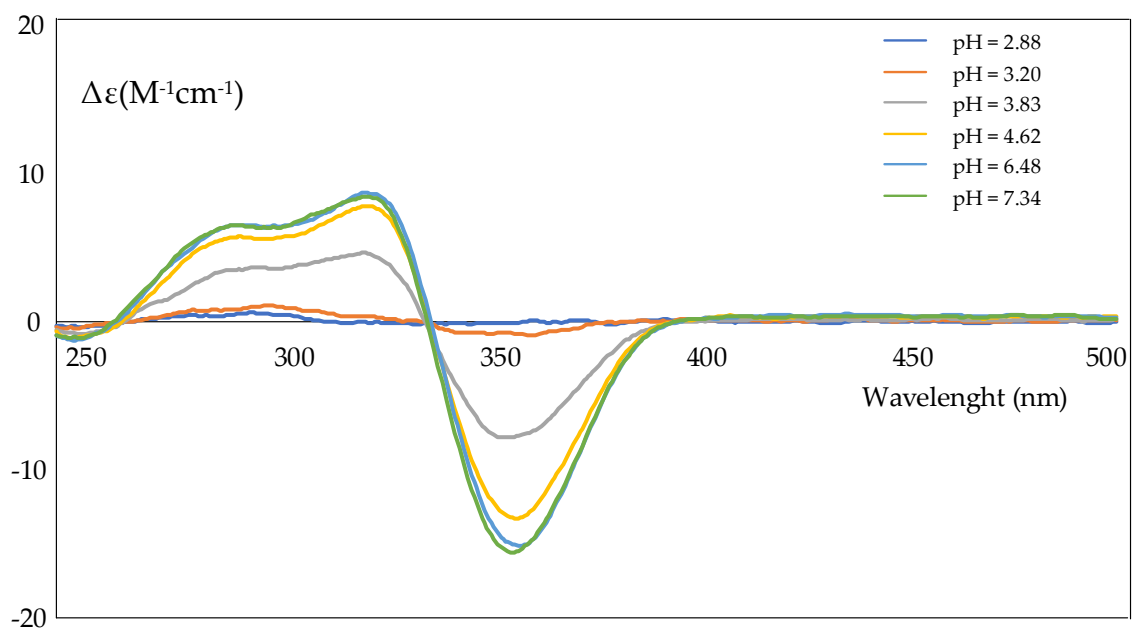


**Figure S1.** Far-UV circular dichroism (CD) spectra (optical path 0.2 cm) of harziaic acid in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values:  $C_{\text{H}_2\text{L}} \leq 1.72 \times 10^{-4} \text{ M}$ .

(A)

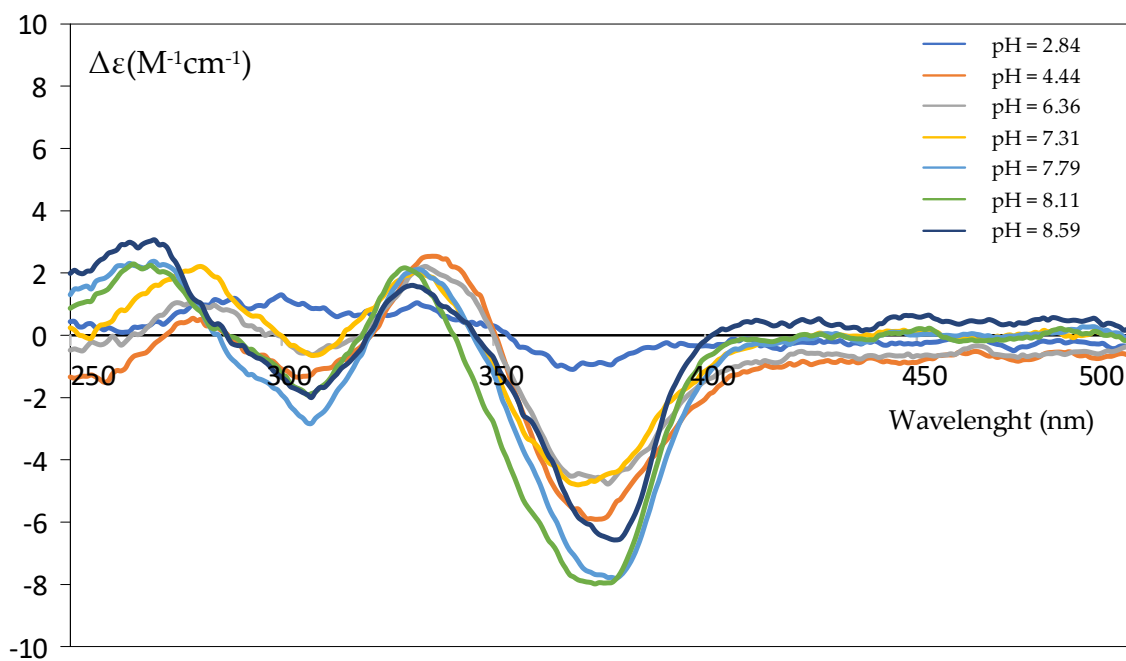


(B)

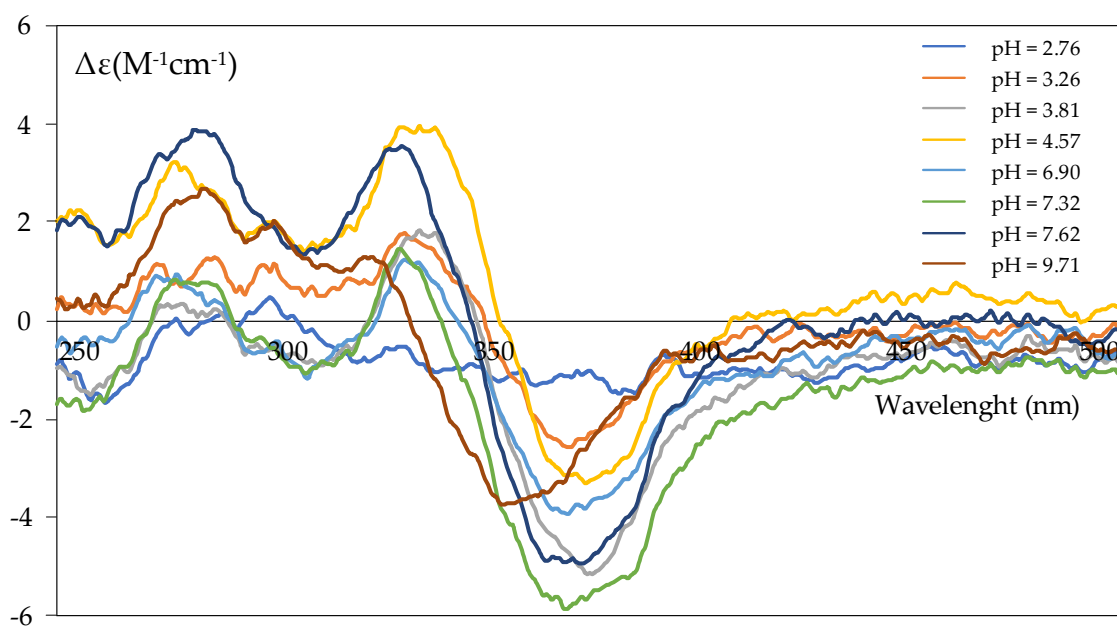


**Figure S2.** Far-UV circular dichroism (CD) spectra (optical path 1 cm) of  $\text{La}(\text{ClO}_4)_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50  $w/w$ ) at different pH values: (A)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{La}}} = 0.995$ ,  $C_{\text{La}} \leq 3.82 \times 10^{-5} \text{ M}$ ; (B)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{La}}} = 1.992$ ,  $C_{\text{La}} \leq 3.99 \times 10^{-5} \text{ M}$ .

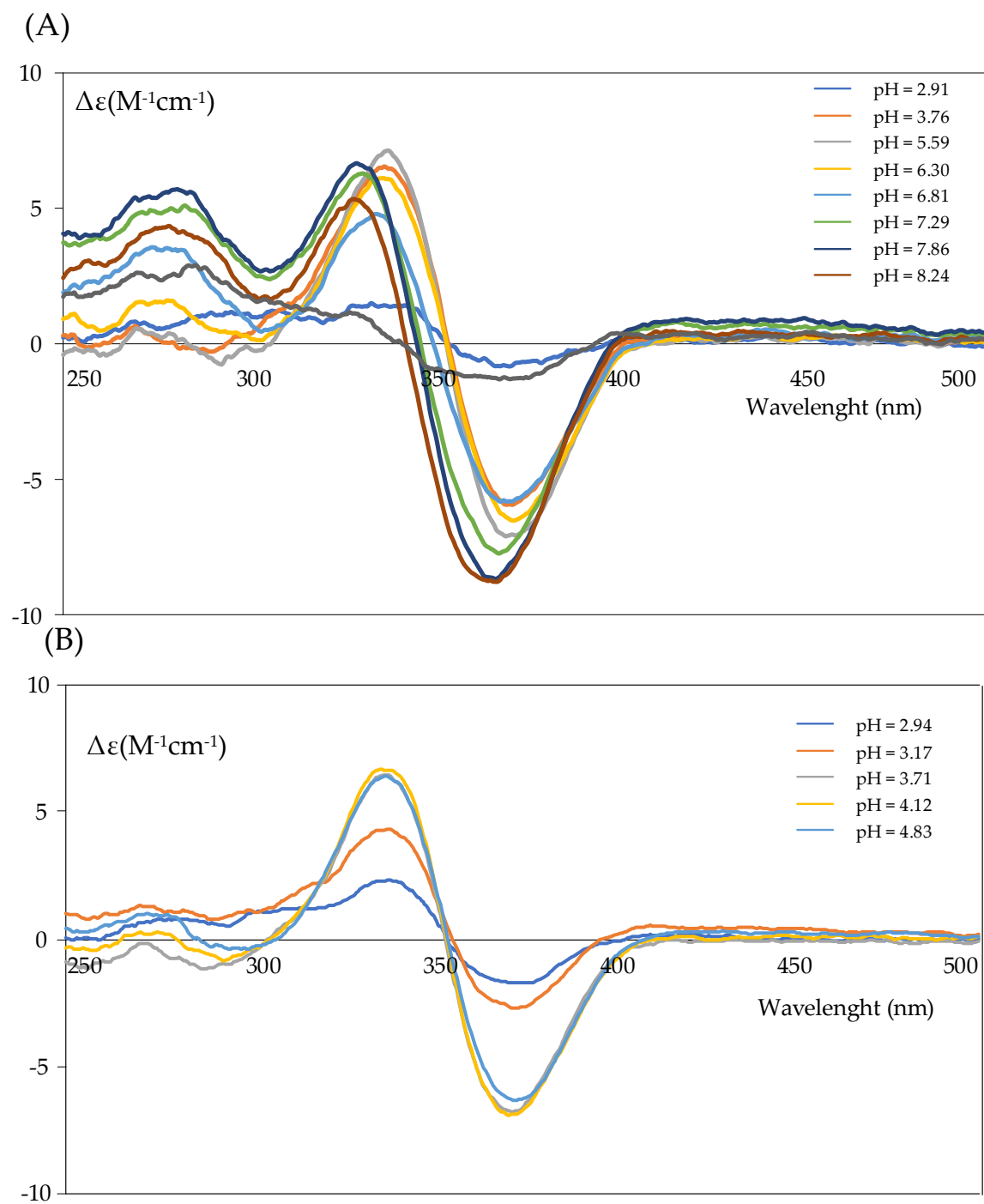
(A)



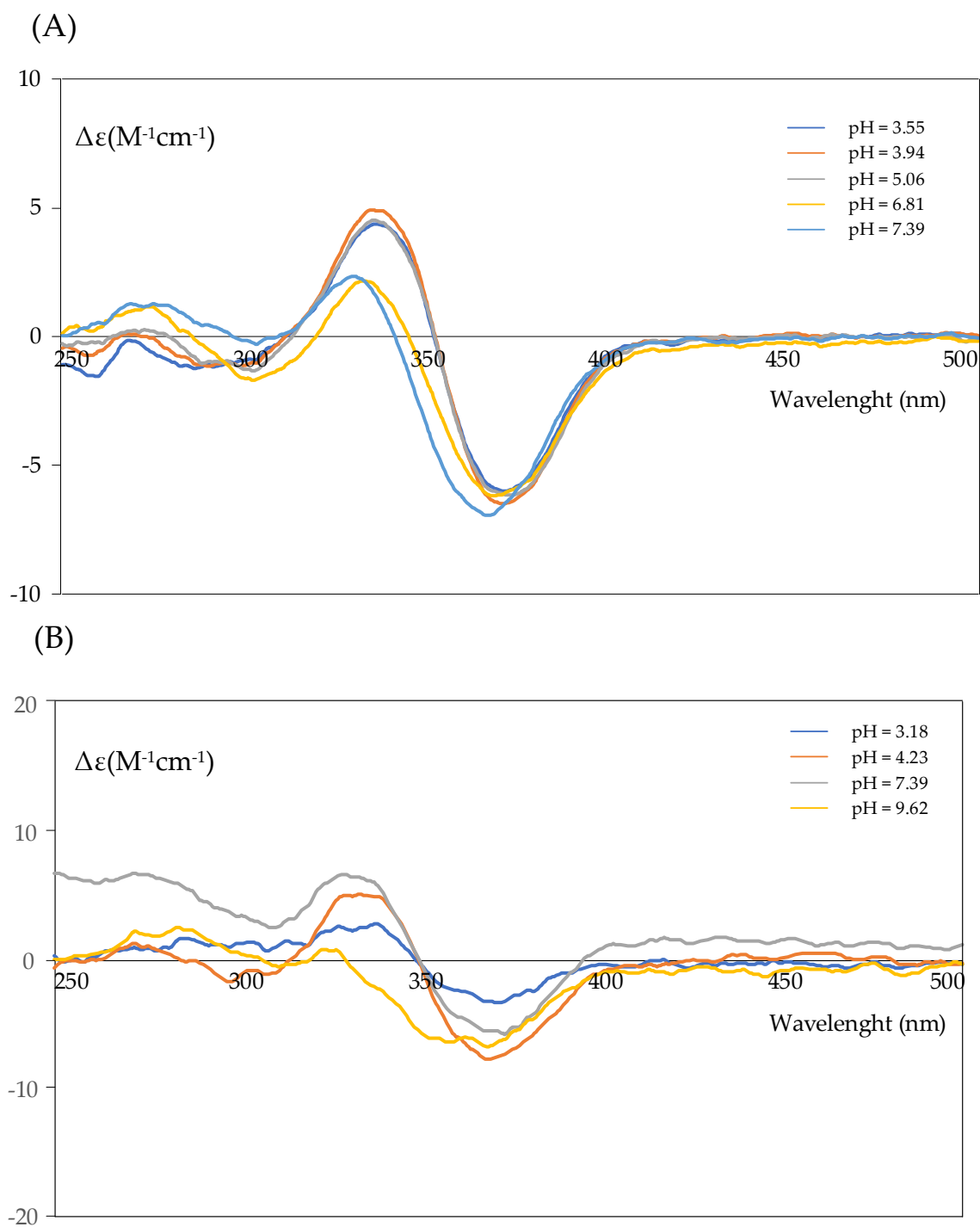
(B)



**Figure S3.** Far-UV circular dichroism (CD) spectra (optical path 0.2 cm) of NdCl<sub>3</sub> in CH<sub>3</sub>OH/0.1 M NaClO<sub>4</sub> (50:50 w/w) at different pH values: (A)  $\frac{C_{H_2L}}{C_{Nd}} = 1.000$ ,  $C_{Nd} \leq 23.3 \times 10^{-4}$  M; (B)  $\frac{C_{H_2L}}{C_{Nd}} = 1.935$ ,  $C_{Nd} \leq 8.26 \times 10^{-5}$  M.



**Figure S4.** Far-UV circular dichroism (CD) spectra (optical path 1 cm) of  $\text{Sm}(\text{ClO}_4)_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50 *w/w*) at different pH values: (A)  $\frac{c_{\text{H}_2\text{L}}}{c_{\text{Sm}}} = 1.051$ ,  $c_{\text{Sm}} \leq 8.04 \times 10^{-5} \text{ M}$ ; (B)  $\frac{c_{\text{H}_2\text{L}}}{c_{\text{Sm}}} = 2.02$ ,  $c_{\text{Sm}} \leq 3.01 \times 10^{-5} \text{ M}$ .



**Figure S5.** Far-UV circular dichroism (CD) spectra (optical path 1 cm) of  $\text{GdCl}_3$  in  $\text{CH}_3\text{OH}/0.1 \text{ M NaClO}_4$  (50:50 *w/w*) at different pH values: (A)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Gd}}} = 1.00$ ,  $C_{\text{Gd}} \leq 6.44 \times 10^{-5} \text{ M}$ ; (B)  $\frac{C_{\text{H}_2\text{L}}}{C_{\text{Gd}}} = 1.99$ ,  $C_{\text{Gd}} \leq 4.57 \times 10^{-5} \text{ M}$ .