

## Correction

# Correction: Wasielewski, S., et al. Evaluation of Different Clinoptilolite Zeolites as Adsorbent for Ammonium Removal from Highly Concentrated Synthetic Wastewater. *Water* 2018, 10, 584

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## Error in Table

In the original article [1], there was a mistake in Table 7 as published. An evaluation error was noted in the thermodynamic study section. The corrected Table 7 appears below. The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. The original article has been updated.

**Table 7.** Thermodynamic properties of CCP 20, Micro 200, and EcoZeo 20 after 20 h contact time with ammonium solution ( $c_0 = 1000 \text{ mg NH}_4\text{-N/L}$ ,  $\text{pH}_{\text{Start}} 5.3$ ,  $\text{pH}_{\text{End}} 6.5\text{--}7.3$ ).

CLI	Temperature	Free Reaction Enthalpy	Free Standard Enthalpy	Molar Standard Entropy
	T [K]	$\Delta G^0$ [kJ/mol]	$\Delta H^0$ [kJ/mol]	$\Delta S^0$ [J/(K mol)]
CCP 20	283	−15.0	−16.9	−6.8
	295	−15.0		
	307	−14.8		
Micro 200	283	−13.9	−9.1	17.6
	295	−14.3		
	307	−14.2		
EcoZeo 20	283	−13.7	−4.7	32.7
	295	−14.3		
	307	−14.4		

## Text Correction

There was an error in the original article. A correction has been made to the following lines.

**Page 1, line 24:** The process was “exothermic”.

**Page 5, line 24:** A bracket was omitted in Equation (4). This should be corrected as follows:

$$q_{\text{eq}} = \frac{(c_0 - (c_0 - c_B) - c_{\text{eq}}) \times \left(\frac{V_P}{1000}\right)}{m}$$

**Page 12, lines 11–14:** Due to the changed values of the thermodynamic study, the interpretation in the text must be adjusted as follows:

“The free standard enthalpy  $\Delta H_0$  of all three sorbents was negative, indicating an exothermic reaction. The standard molar entropy  $\Delta S_0$ , which was positive for Micro 200 and EcoZeo 20, indicates that the ammonium adsorption is a directional process, decreasing



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slightly as the temperature increases. However, the negative molar standard entropy of CCP 20 indicates that the sorption process was random.”

**Page 12, line 23–25 and page 13, lines 1–5:** Due to the changed values of the thermodynamic study, the interpretation in the text must be adjusted as follows:

“Similar to the results published by other researchers ( $\Delta H^0$ :  $-49.384$ ,  $-22.34$ ,  $-5.43$ ,  $-15.38$  kJ/mol [14,19,45,46]), which indicate that adsorption of ammonium is exothermic, a slightly exothermic adsorption was found for the CLIs tested in this study ( $\Delta H^0$  ranging from  $-4.7$  (EcoZeo 20) to  $-16.9$  kJ/mol (CCP 20)). Furthermore, results reported with negative values of  $\Delta S^0$  ( $-156.1$ ,  $-74.42$ ,  $-43.03$ ,  $-49.34$  J/(K mol) [14,19,45,46]) indicate decreasing ammonium uptake due to increasing randomness. In contrast to this, a strongly directed adsorption process, as indicated by positive  $\Delta S^0$  values ranging between  $32.7$  (EcoZeo 20) and  $17.6$  J/(K mol) (Micro 200), was achieved with the investigated materials of this study.”

**Page 14, line 29:** The adsorption process observed was “exothermic”.

The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. The original article has been updated.

## Reference

1. Wasielewski, S.; Rott, E.; Minke, R.; Steinmetz, H. Evaluation of Different Clinoptilolite Zeolites as Adsorbent for Ammonium Removal from Highly Concentrated Synthetic Wastewater. *Water* **2018**, *10*, 584. [[CrossRef](#)]