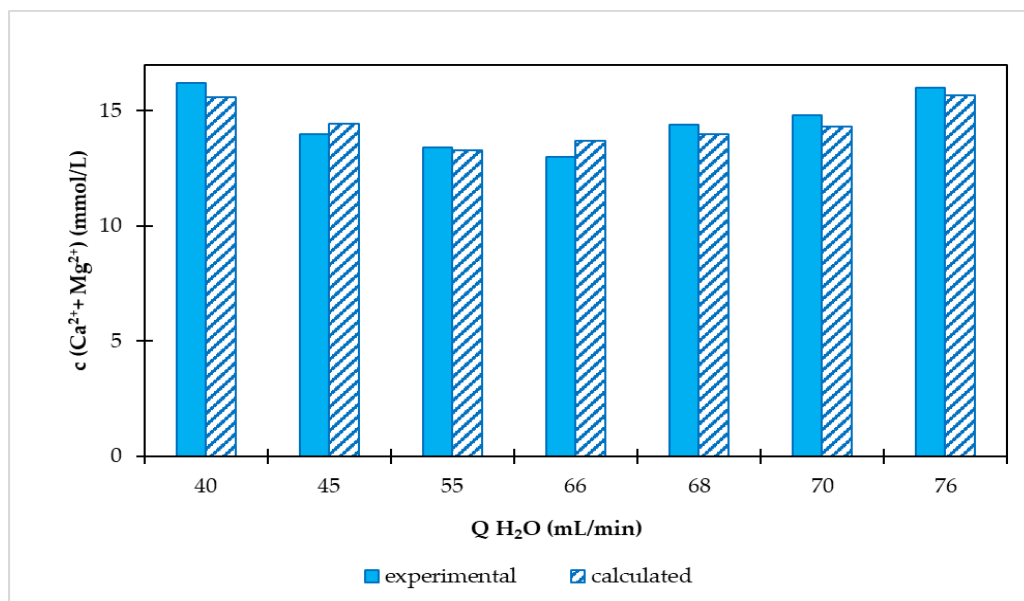
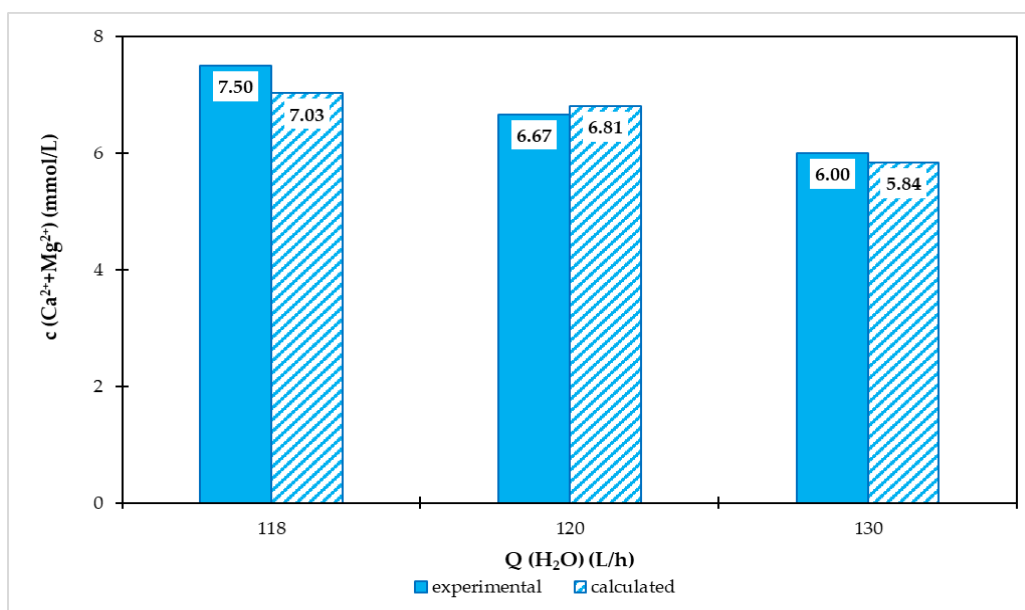


## Supplementary materials

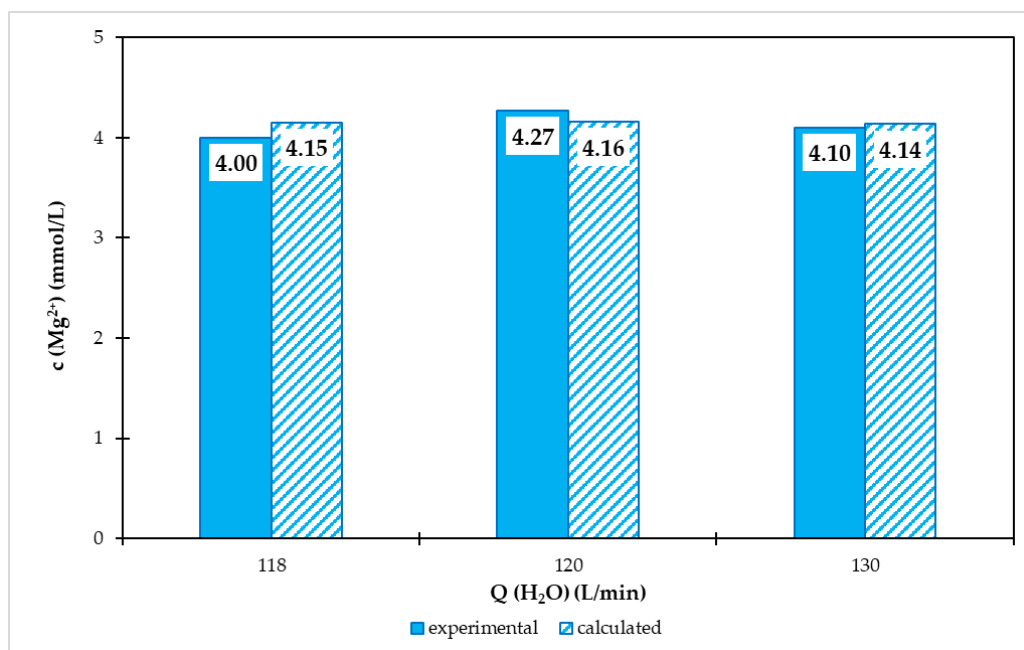
### S: Figures



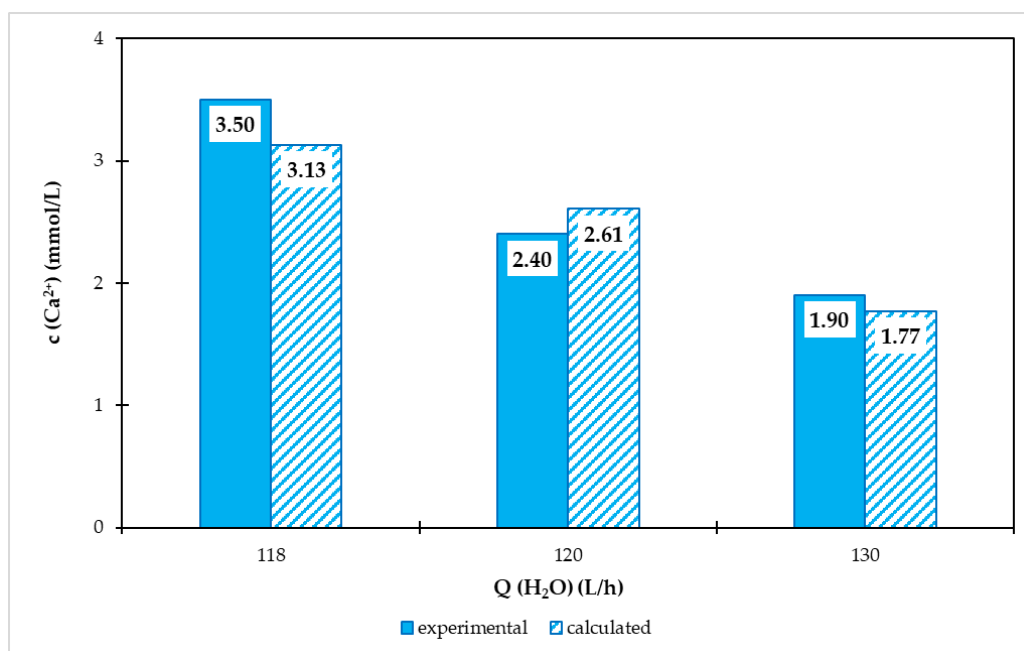
**Figure S1.** Calculated and measured concentrations of  $\text{Ca}^{2+}+\text{Mg}^{2+}$  at different flows of treated water and  $\text{CO}_2$  flow at the level of 0.5 L/min during operation of the laboratory FBRR



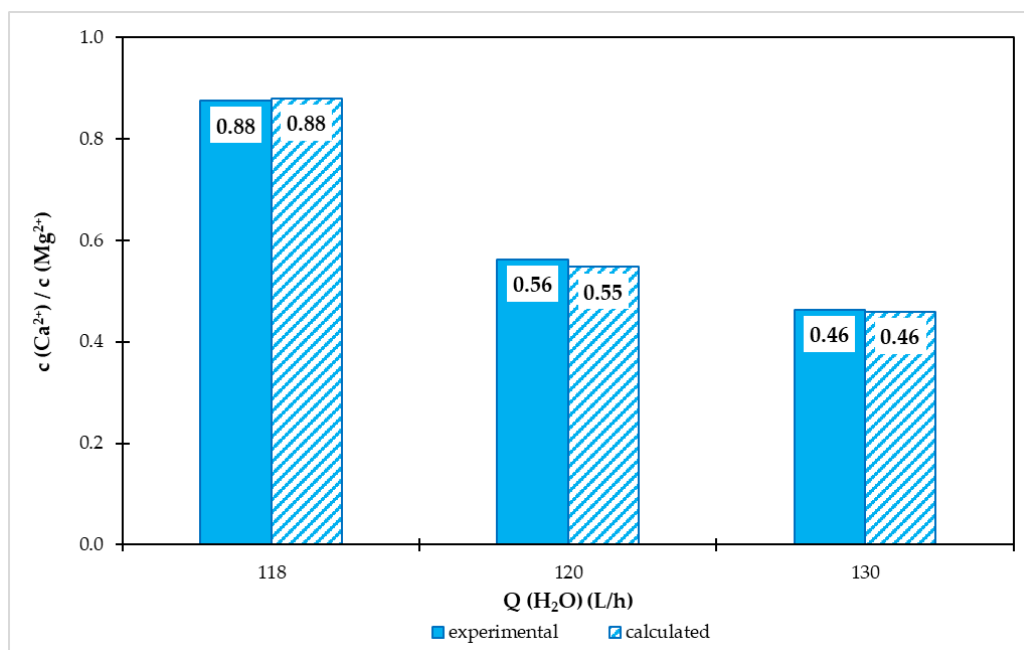
**Figure S2** The total concentration of the sum of  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions in drinking water at  $Q(\text{CO}_2) = 0.5$  L/min



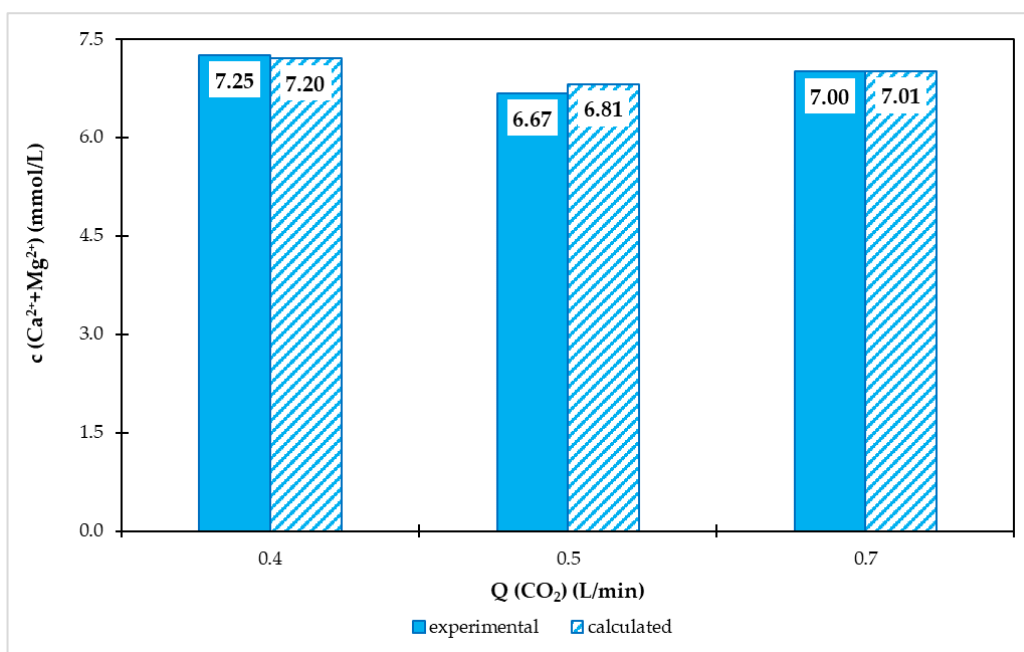
**Figure S3.** Molar concentration of  $\text{Mg}^{2+}$  in drinking water at  $Q(\text{CO}_2) = 0.5 \text{ L/min}$



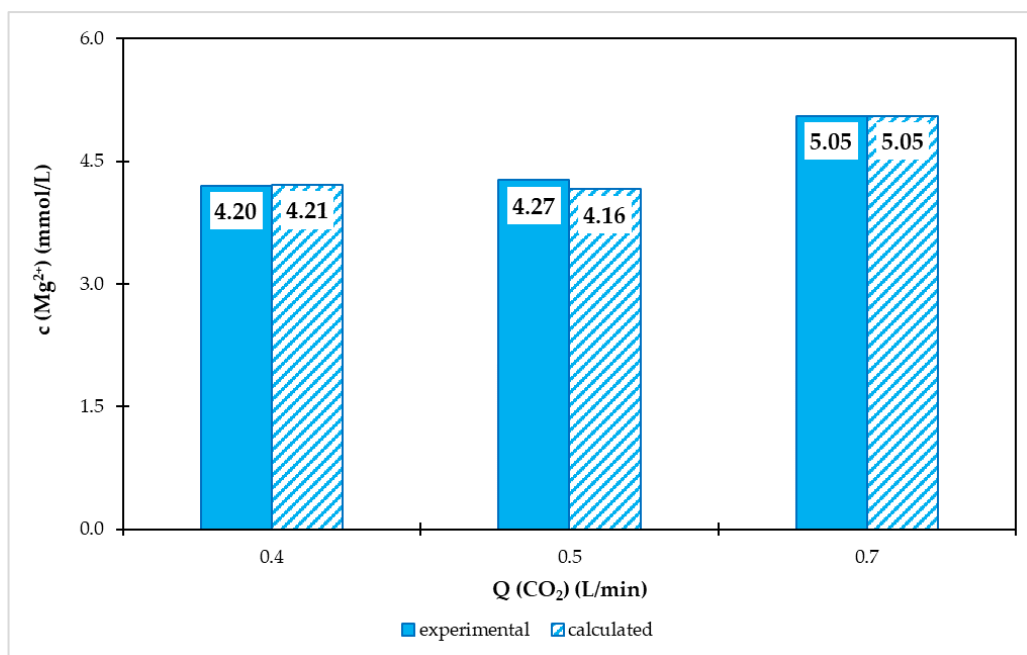
**Figure S4.** Molar concentration of  $\text{Ca}^{2+}$  in drinking water at  $Q(\text{CO}_2) = 0.5 \text{ L/min}$



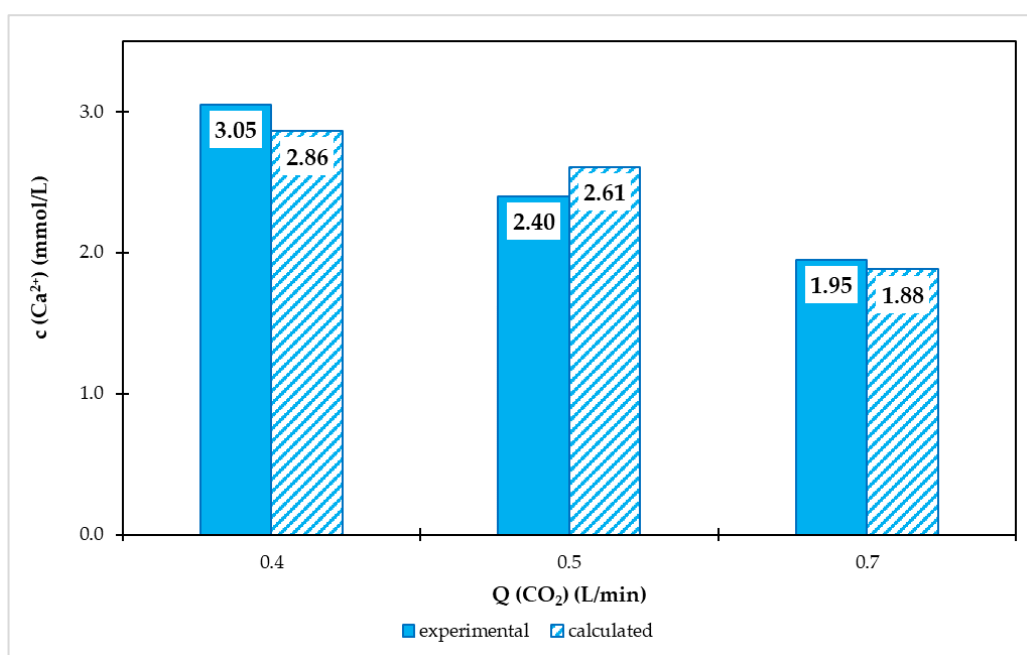
**Figure S5.** Molar concentration ratio of  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  in drinking water at  $Q(\text{CO}_2) = 0.5 \text{ L/min}$



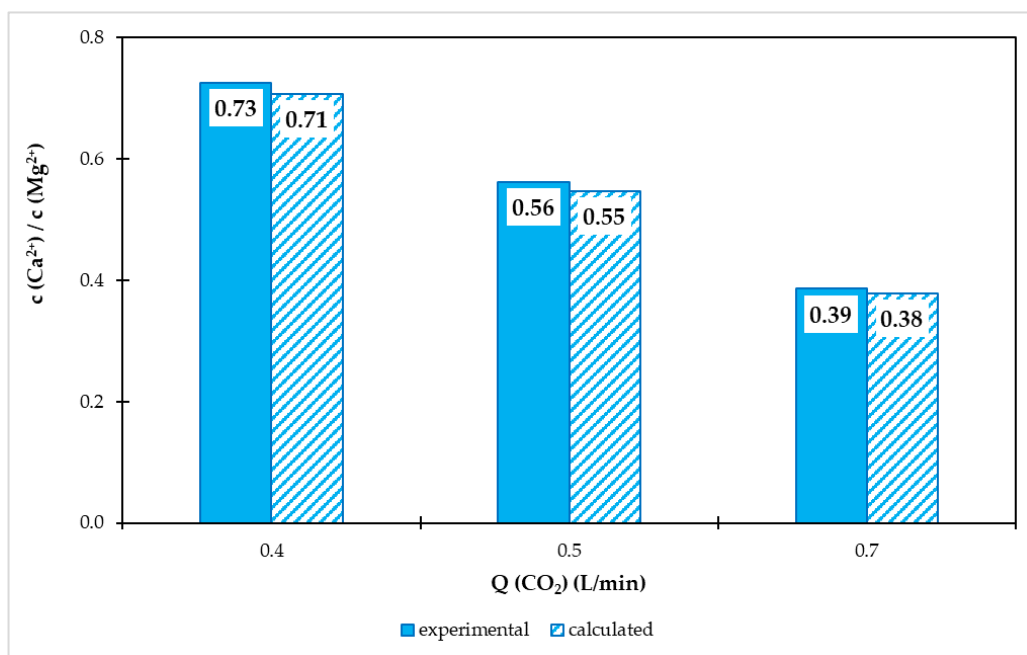
**Figure S6.** Molar concentration of the sum of  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  in drinking water at  $Q(\text{H}_2\text{O}) = 120 \text{ L/h}$



**Figure S7.** Molar concentration of the sum of  $\text{Mg}^{2+}$  in drinking water at  $Q(\text{H}_2\text{O}) = 120 \text{ L/h}$



**Figure S8.** Molar concentration of the sum of  $\text{Ca}^{2+}$  in drinking water at  $Q(\text{H}_2\text{O}) = 120 \text{ L/h}$



**Figure S9.** Molar ratio of  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  concentration in drinking water at  $Q(\text{H}_2\text{O}) = 120 \text{ L/h}$