Question

What is K_f for water?

$$K_f = RT^{*2}(M_1/1000 \text{ g kg}^{-1}) / \Delta_{fus}H$$

A. 3.46 K kg mol^{-1}

B. 1.86 K kg mol^{-1}

C. 0.67 K kg mol^{-1}

D. 0.095 K kg mol^{-1}

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$$K_f = \frac{\left(8.31 \frac{J}{molK}\right)(273 \, K)^2 \left(0.018 \frac{kg}{mol}\right)}{\left(6000 \frac{J}{mol}\right)}$$

$$K_f = 1.86 \, K \left(\frac{kg}{mol}\right)$$