Caplow et al. Vol. 127, No. 3, November 1994. Pages 779–788.

An error was made in applying the measured −0.9 kcal/mol standard free energy for the reaction:

(1) Tubulin-GMPCPP-MT ⇄ Tubulin-GMPCP-MT + Pi

to calculate the free energy for the partial reaction, forming the ternary complex containing bound Pi:

(2) Tubulin-GMPCPP-MT ⇄ Tubulin-GMPCP-Pi-MT

With a standard free energy for reaction 1 equal to −0.9 kcal/mol, for the case where the K_d for Pi is equal to 25 mM, the standard free energy for reaction 2 is −3.06 kcal/mol. It is noted that results from this lab and from Trinczek et al. (1993. *Mol. Biol. Cell.* 4:323–335.) have failed to detect stabilization of microtubules by 100–170 mM Pi, so that the K_d for this substance may be >250 mM, rather than 25 mM, used in this calculation. If this is the case, then the free energy for forming the Tubulin-GMPCP-Pi ternary complex is equal to >−1.72 kcal/mol; the corresponding value for myosin-ADP-Pi is −1.3 kcal/mol. It is noted that, because Pi concentration is buffered in cells at ~1 mM, as long as the K_d for Pi is <1, energy will be liberated when Pi dissociates from the ternary complex formed in reaction 2.