

## Comparison of K<sub>p</sub> Calculation Methods (1 atm)

**Notebook:** COCO 3 Forum 2020

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Item	Temperature (°C)	K <sub>p</sub> from COCO	K <sub>p</sub> from Brown[1]
01	300	4.378 E-03	4.34 × 10 <sup>-3</sup>
02	450	4.738 E-05	4.51 × 10 <sup>-5</sup>
03	600	2.211 E-06	2.25 × 10 <sup>-6</sup>
04			(13.8 E-04) <sup>2</sup> 1.90 E-06[2]
05	880	(5.581 E-08) <sup>0.5</sup> 2.362 E-04	2.73 E-04[3]

<sup>1</sup> Brown, Theodore L.; LeMay, H. Eugene, Jr.; Bursten, Bruce E. (2006). "Table 15.2". Chemistry: The Central Science (10th ed.). Upper Saddle River, NJ: Pearson. ISBN 978-0-13-109686-8.

<sup>2</sup> Haber and Maschke. Table A, Experimental and Calculated Values of 10<sup>4</sup>K<sub>p</sub> at Total Pressure of 1 Atmosphere. Within Ref 3.

<sup>3</sup> Square root of K<sub>p</sub> (K<sub>p</sub><sup>0.5</sup>). [atomistry.com](http://nitrogen.atomistry.com/ammonia_equilibrium.html). Ammonia Equilibrium.

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