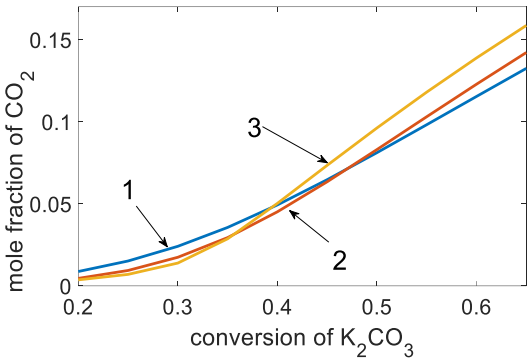

Figure 4: Model calculations. CO_2 output as function of fraction conversion of the carbonate at various values of the liquid temperature, 1 – 380 K, 2 – 395 K, 3 – 410 K

6. Conclusions

The presented mathematical model of the process is consistent with the known experimental data in a wide range of parameters. The discrepancies between the model calculations and the known experimental data are due to both the approximate nature of the model and, possibly, experimental errors. Processing of more experimental data is required to refine the model. The study can be used as a theoretical basis for modeling the process of absorption of carbon dioxide by a solution of potassium carbonate with promoters.

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