Formulation of Dynamic Redox Systems according to GATES/GEB Principles

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Two equivalent approaches to formulation of generalized electron balance (GEB) concept, needed for resolution of electrolytic redox systems according to GATES/GEB principles, are presented in two examples of simulated potentiometric titrations made with KMnO_4 solution as titrant. The results obtained from calculations made according to MATLAB iterative computer programs are presented graphically and discussed. The problems of completeness and consistency of physicochemical knowledge related to the system considered and the resulting consequences, are also discussed.

Keywords: Electrolytic redox systems; titration; generalized electron balance.

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