EuroSciCon

9th Edition of International Conference on

Analytical Chemistry

March 26-28, 2018
Vienna, Austria

Insights in Analytical Electrochemistry, Volume 4
DOI: 10.21767/2470-9867-C1-006

STATIC AND DYNAMIC SOLUBILITY DIAGRAMS IN NON-REDOX AND REDOX SYSTEMS

Tadeusz Michałowski
Cracow University of Technology, Poland

Calculation of solubility of solid phases as precipitates in aqueous media occupies a prominent place in scientific literature. However, the erroneous patterns of reasoning and simplifications made in textbooks, e.g. in *J. Chem. Educ.,* as well as in didactic materials offered in the internet, based on the schemas resulting from the ubiquitous stoichiometry of the reaction are unacceptable, and give incorrect results. This kind of the subject knowledge was clearly confirmed in the series of relevant challenges, organized in *Anal. Bioanal. Chem.* Note that the active participants of the challenges were not students, but scientists, in general. The correct approach, based on the rules of conservation and detailed physicochemical/thermodynamic knowledge on the system considered is realizable according to generalized approach to electrolytic systems (GATES). All the qualitative and quantitative knowledge is involved in the balances and independent expressions for the equilibrium constants. The advantages of the GATES in the correct solving of complex two-phase non-redox and redox system are exemplified there.

michalot@o2.pl