Citation Classics


"I was ready to tackle the problem; I needed only the time. It was clear that almost certainly the approach would have to be photometric, but that existing color reagents were unsuitable in a number of regards. However, the range of possibilities was not all that large. So, over the next few week-ends, through a series of cross sectional trials, I systematically varied components, and composition and methods of preparation of candidate color reagents as to their suitability for the quantitative estimation of the reduced copper oxide. It turned out that I could get the properties I needed from an arsenomolybdate and was able to devise two quite reproducible ways of preparing the reagent. These produced stable color densities directly proportional to the cuprous oxide, which were reproducible and with an absorption peak at a predictable wave length. This procedure was readily transferrable to the basic reduction technique of Somogyi, wherein it replaced the reliable but tedious titration method, in this way it greatly accelerated the analysis. Within a few weeks our refrigerators, though not precisely empty, were clearly ready to receive more specimens....

"There was a secondary problem which had to do with an annoying error which was detected in bloods deproteinized by the Somogyi procedure. So, back to the weekend chores. Actually the problem was fairly simple once I had clearly defined the difficulty. The solution was to use a barium rather than sodium hydroxide to precipitate the zinc, with the advantage that a surplus could be used, assuring removal of zinc while the excess barium was precipitated, leaving no nasty post-filtration residues to foul up the reduction process. I did feel it important enough to speak directly to Dr Somogyi about this and went to St Louis to meet with him It was a delightful visit. Dr Somogyi had the predictable Hungarian charm. He agreed that he was troubled with the same problem and that he had developed a remedy which in principle was identical to mine. His procedure, though similar, was more convenient than mine, and with his permission I included it in this paper."

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